



SOW YOU KNOW 2022

Goochland-Powhatan Master Gardener Association
Weekly Facebook Tips

Happy New Year!

2022 was the second year of

Sow You Know;

*weekly gardening tips written
by Goochland Powhatan
Master Gardeners for our
gardening friends and
neighbors. Please enjoy this
Year in Review.*



For information about these
and other gardening subjects,
please contact
our help desk:
gpmastgardener@gmail.com



www.gpmga.org

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Winterberry

By Pat Lust, January 10, 2022

Winterberry (*Ilex verticillata*) grows in the eastern United States from Canada to Florida. Unlike more familiar members of the holly family, it is not evergreen. Its leaves turn an interesting maroon in autumn before falling off to reveal beautiful bright red berries.

You will need more than one bush to get the beautiful berries. Winterberry is dioecious, meaning that each bush has either male or female flowers but not both. Check the tags when you buy them, and select several females along with one male for the most berries.

The inconspicuous greenish-white flowers that appear in June and July provide nectar for butterflies and bees, and the berries provide a feast for a variety of birds. But don't eat the berries yourself, they can be poisonous to you and your pets.

It grows just about anywhere - wet or dry soil, full sun to part shade - and requires little maintenance. It is tolerant of stresses and is generally free of any serious insect or disease problems.

Winterberry can make a good hedge or special accent in your rain garden. Many folks like to cut winterberry branches to use as holiday decorations. If you do, perhaps you will return the dried branches to a location where the birds can still feast on their berries.

Resource

<https://extension.umn.edu/trees-and-shrubs/winterberry>



University of New Hampshire Extension

Time to Order Seeds

By Kitty Williams, January 17, 2022

It's January. Seed company catalogs and emails flood in, promising flowers in springtime and summer gardens. Their flawless photographs and dreamy descriptions can lift your spirits if nothing else.

It really *is* time to order those seeds, though, particularly if you plan to start them indoors or try winter sowing.

Before you select, learn some basic terms. The website Homestead and Chill (H&C) focuses on organic and non-GMO seeds, but takes a helpful, non-judgmental approach. A few things to consider:

- Seeds saved from **open-pollinated** plants are more likely to grow true and may be better for seed savers (though cross-pollination can cause problems).
- **Hybrid** plants are created when pollination is controlled between two different plants with desirable qualities. The plants will be great, but don't bother saving their seeds – the resulting plants won't be the same.
- **Heirloom** plants are more than 50 years old and self- or open-pollinated.
- H&C prefers **organic** seeds but emphasizes that what matters most is how the plant is raised.
- Although H&C recommends **non-GMO** seeds, they note that the science isn't settled.

There are too many seed companies to list, but here are some to try:

- Southern Exposure Seed Exchange, Virginia (local) www.southernexposure.com/
- Johnny's Selected Seeds, Maine (Safe Seed Pledge signer) www.johnnyseeds.com/
- Seed Savers Exchange, Iowa (heirloom) www.seedsavers.org/heirloom-seeds
- Baker Creek, Missouri (heirloom) www.rareseeds.com/
- Prairie Moon Nursery, Minnesota (native plants) www.prairiemoon.com/
- Sheffield's Seeds, New York, (large selection) <https://sheffields.com>



- Hudson Valley Seed Company (open pollinated and heirloom) www.hudsonvalleyseed.com
- Renee's Garden (gorgeous seed packets) www.reneesgarden.com
- Floret, Washington (unique, uncommon & heirloom flowers) www.floretflowers.com

Using Tree Wizard

By Rebecca Crutchfield Crow, January 24, 2022

Are you thinking about planting a tree in your yard next spring? As a long-term investment, a tree can be expensive, so choosing the right one is important. "Virginia has at least 350 species of trees," according to *Helping Virginians Keep Their Woodland Healthy and Productive*, an article from VT's Virginia Forest Landowner Education Program. The process can be overwhelming!

The Best Tree Finder: Tree Wizard is a free online tool from the Arbor Day Foundation that can make it easier. "Simply answer a few questions," it promises, "and then we'll recommend the best tree based upon your answers." Trees may be purchased through the Foundation or locally.

Enter your zip code and The Tree Wizard will determine your hardiness zone and ask about your soil type, exposure and other preferences. If you don't know your soil type, do a soil test first. Soil tests may be purchased for \$10 from the Powhatan (804-598-5640) or Goochland (804-556-5841) Extension Offices.

The Wizard doesn't say whether trees are deer resistant, so check the Rutgers New Jersey Agricultural Experiment Station (NJAES) Deer Resistance website, or search online if deer are a threat.

Consider adding Tree Wizard and Rutgers Deer Resistant links to your computer's desktop as permanent references.

Resources

<https://www.arborday.org/shopping/trees/treewizard/Intro.cfm>

<https://njaes.rutgers.edu/deer-resistant-plants/>

<https://forestupdate.frec.vt.edu/>

The screenshot shows the Arbor Day Foundation website's 'Best Tree Finder: Tree Wizard' page. At the top, there's a navigation bar with 'HOME', 'SHOP', 'TREE NURSERY', and 'BEST TREE FINDER: TREE WIZARD'. Below this is a grid of seven categories: 'Fast-Growing', 'Flowering', 'Fruit & Nut', 'Privacy', 'Evergreen', 'Shade', and 'Shrubs & Bushes'. A yellow banner on the left says 'FREE SHIPPING On any tree nursery order over \$75'. The main heading is 'Best Tree Finder: Tree Wizard'. Below it, a text box says 'Not sure which trees to plant? The Tree Wizard will recommend the best tree for you.' There are four circular images of different trees. A 'Getting Started' section contains the text 'Our tree experts have created this Tree Wizard to help you. Simply answer a few questions and then we'll recommend the best tree based upon your answers.' and a blue 'NEXT' button. On the left side of the page, there's a vertical menu with links: 'Tree Nursery', 'Hardiness Zone Look-Up', 'Shipping Schedule', 'Best Tree Finder', and 'Bulk Seedlings'.

Skunk Cabbage

By Pat Lust, January 31, 2022

Skunk Cabbage (*Symplocarpus foetidus*) is found in swampy areas among deciduous trees, where it often blooms before the snow melts. This early bloomer first appears as a maroon, hood-like structure protecting the cluster of tiny flowers inside that will soon be revealed for the early pollinators. If there is no snow around them, they may blend into the leaf litter and not be noticed. Unless you are looking for them!

If there is snow, just look for the little melted spots that seem unusual. This plant has the ability to generate its own heat considerably above air temperature and can melt snow several inches around it. This allows it to emerge and bloom even before the ground thaws. After the blooms, a carpet of large, cabbage-like leaves appears, and then the plants disappear before summer.



North Carolina State University Cooperative Extension

Skunk Cabbage gets its name from its unusually offensive odor, which may be likened to the scent of a skunk or maybe of rotting meat. This odor is the lure for attracting those early pollinating insects.

The range of this Virginia native perennial plant extends north to eastern Canada, south to the Carolinas and west to Minnesota. It is in the same family as the spring bloomer called Jack-in-the-Pulpit. If you look at both their flowers, you may be able to see a family resemblance.

Skunk cabbage is somewhat toxic, but it has been used in the past as for medicinal purposes.

Resources

Skunk cabbage, *Symplocarpus foetidus* - <https://hort.extension.wisc.edu/.../skunk-cabbage.../>

Skunk Cabbage - https://www.illinoiswildflowers.info/.../skunk_cabbage.htm

Winter Seed Sowing

By Becky Sido, February 7, 2022

You can plant seeds outdoors starting today! Winter seed sowing is best for seeds that need a short cold period (a.k.a. cold stratification) to germinate. This method takes advantage of the natural temperatures and length of day to trigger germination. Winter sowing has many benefits: no need for seed trays, lights, treatment for damping-off disease or worry about seedlings drying out.

The method is simple and needs no special equipment.

First prepare one-gallon clean translucent jugs, such as milk jugs, by poking drainage holes in the bottom and around the top to permit air to enter and excess humidity to escape. Cut around the circumference of the jug, leaving an inch-wide section just below the handle attached to serve as a hinge. Add a few inches of damp potting mix and sow your seeds. Label your jugs (inside and out) with a paint marker and tape close with duct tape. Place the jugs outdoors where they will be exposed to rain, snow, and sun (but won't blow away), with the caps off to let water in. Check humidity occasionally. If they are too wet, leave the top open during the day. If you don't see any condensation, they may be too dry, so add a *little* water. In the spring your seedlings will be ready to transplant into your garden.



Some of the many plants you can winter sow include:

- alyssum
- calendula
- butterfly weed
- columbine
- coneflower
- coreopsis
- cosmos
- foxglove
- petunias
- echinacea
- milkweed
- yarrow
- beets
- broccoli
- cabbage
- kale
- dill
- oregano
- radishes
- spinach

Resources

Four Seasons Winter Sowing of Seeds – YouTube <https://www.youtube.com/watch?v=6eWD9ZC-JPM>

<https://extension.unh.edu/.../winter-seeding-%E2%80%93...>

<https://extension.okstate.edu/.../docs/winter-sowing.pdf>

<https://extension.psu.edu/starting-seeds-in-winter>

<https://marylandgrows.umd.edu/.../winter-sowing-how-i.../>

Chickweed

By Pat Lust, February 14, 2022

Common chickweed, *Stellaria media*, is not native to Virginia and probably arrived here in the 18th century as a hitch hiker in seed brought by settlers. It has spread throughout North America, except for the far west and is classified by The Virginia Department of Conservation and Recreation as an invasive plant of medium concern.

As it creeps along the ground, forming mats up to 16 inches across, it puts down roots at many of the nodes. It can stand up to harsh winter weather, and, if you can bear to have it in your garden during the winter, it makes a good winter ground cover. But, since it is an annual and is invasive, you will want to remove it before it goes to seed.

The tiny white flowers provide an early source of food for insects. Each flower has five petals that look like ten because of deep divides in each.

As its name suggests, chickens love it. Adventurous people love it, too - raw in salads or cooked like spinach. "Wildman Steve Brill" says that raw chickweed tastes like corn silk. It makes a delicious pesto, and I like to use walnuts instead of pine nuts. Harvest it before it blooms, and then destroy most of the rest of it before it blooms and goes to seed.

Resources

Clemson University - <https://hgic.clemson.edu/common-chick-weed-stellaria-media/>

Chickweed pesto - <https://www.growforagecookferment.com/chickweed-pesto/>



Common Chickweed – University of Minnesota Extension

Using Kudzu Vines to Make Wreaths

By Rachael Watman, February 21, 2022

Kudzu is hated. I know.

It's invasive, it can grow up to a foot per day, and it causes economic and environmental damage. In spite of all that, it has strengths I can work with. I use vines from my tenacious 1.5 acre kudzu patch to make ring bases for wreaths.

It's straightforward. Here's how. Harvest after the first frost. Kudzu loses its leaves, making it easier to pull longer sections of vines. The vines are woodier when the sap is down, and they don't break as quickly.

After harvesting, coil the vines and dry for a few weeks in a moisture and mold-free environment out of direct sunlight. Prior to weaving, soak the vines in hot tap water for 15 minutes, then run the vine over a bullnose edge to enhance flexibility.

To make a wreath, form a circle and braid around the circumference at least three times. Cut the end at an angle and tuck into the wreath ring. A satin finish polyurethane spray will seal the finished wreath and bring out the natural colors.

I decorate my kudzu vine wreaths by wiring bunches of flowers and greenery, which I have dried from the summer. I'm also a fan of adorning with pinecones, bird nests, and berries. Use whatever suits you to make your kudzu wreath de vine.

Resources

For more information on loving kudzu, here's a recent podcast I did with our Master Gardener team <https://anchor.fm/humus-and-humans>.

To learn more on harvesting and weaving with kudzu check out Matt Tommey of Asheville, NC who also has lots of helpful info and video tutorials. www.matttommey.com/basket-weaving-techniques



Pruning Roses

By Debbie DuVal, February 28, 2022

With the beginning of March in sight, we can add rose pruning to our growing spring to-do list.

Pruning is the initial step in promoting a healthy rose season. The goal is two-fold: to remove the older, diseased, dead, and damaged wood and to add shape.

Choose the right time to prune by assessing the rose buds. The best time is when they are swelling and breaking dormancy. Pruning too early may damage new growth due to cold temperatures and late frosts, while waiting too late may result in weakened branches due to excessive sap loss.

Use sharp, clean pruners or loppers. I would encourage long sleeves, long pants, and thick protective gloves. Always clean tools with rubbing alcohol before and after pruning each bush. (Avoid bleach: it is corrosive.)

Make clean 45-degree angle cuts above an outwardly facing bud. Remove all dead or dying canes, and prune congested and over-lapping branches. Remove weak canes that are smaller than the diameter of a pencil.

When pruning a hybrid tea or grandiflora rose (large-flowered or bush roses), you may prune reasonably hard in the spring and fall, creating a balanced framework. Prune the main shoots to within 8-10 inches from the ground.

Floribundas (clustered flowered) and patio dwarf rose bushes may be pruned in fall and spring by pruning main shoots to 12- 15 inches from the ground and reducing side shoots to one third their original size. Popular floribunda roses are Knock Out® roses and Drift® Roses.

When pruning a climbing rose or rambler rose, restrict pruning to removing weak growth only during the first two years, begin more severe pruning in the fall of the third year after planting. Continue corrective pruning and “deadheading” throughout the season.

Resources

Pruning Our Rose Garden <https://web.extension.illinois.edu/roses/prune.cfm>

Roses for North Carolina | NC State Extension Publications <https://content.ces.ncsu.edu/roses-for-north-carolina>



Soil Blocking

By Rachael Watman, March 7, 2022

Starting seeds indoors? Soil blocking is an eco-friendly, cost effective, storage-smart method to produce strong seedlings with vigorous roots which quickly re-establish when planted. Soil blocks are molded cubes of planting medium which serve as the container. Soil blocks allow the roots direct exposure to the air, hence increased oxygen and air pruning which decreases root disruption and transplant shock.

The tool—a soil blocker—comes in a variety of sizes—3/4” for small seeds to 2” and 4” blocks which are good for “nesting” the smaller sized blocks when you need to pot up. There are several soil blocking recipes available incorporating a mix of compost, sand, soil, or coconut coir. For environmental reasons, I avoid ones with peat. Some companies make their own block mixtures ready to use. Traditional potting soil will not work as it lacks the ability to bind and retain moisture.

Once mixed, sift the medium to remove large pieces of debris before adding one part water to three-part mixture. After adding seeds to your blocks, place on a heating mat (a dome covering your container is recommended). When over 50% of the seeds germinate, remove from heating mat and place under a grow light.

Check out these instructions and videos on making your own mix and using the soil blocker. Soon you will be on your way to becoming a Block Star.

- <https://smallfarms.cornell.edu/.../soil-blocking-in-five.../>
- Blossom and Branch Farm videos
 - How to soil block - https://www.youtube.com/watch?v=Z_mRges0q-A
 - Peat-free soil blocking recipe - <https://www.youtube.com/watch?v=DZP0wpPdkrc>



Spring Ephemerals

By Pat Lust, March 14, 2022

Spring Beauty, *Claytonia virginica*, is one of an abundance of spring ephemeral that are native in Virginia. As you've been out and about recently, maybe hiking in the woods, have you seen the beautiful, colorful carpets of wildflowers? They will probably be gone next time you pass by. These are commonly known as spring ephemerals – plants that bloom very early and then completely disappear by sometime in June – flower, leaves and stems... gone... poof. But they are not dead. Just dormant.



Spring Beauties - Ohio State University Extension

Spring ephemerals in central Virginia include some of our favorites: Virginia bluebells, trilliums, Dutchman's breeches, bloodroot, trout lilies, and many more. They are welcome first signs of spring.

Their blooms are an important early source of pollen and nectar for insects, and many of them have bulbs or corms that are very tasty to some of the hungry small critters. These plants generally thrive in undisturbed woodlands where they can establish colonies over time with a little help from the ants who distribute their seeds.

GPMGA maintains a native plant trail in Powhatan Court House, at Fighting Creek Park. There you can see all of the above-mentioned beauties in April. Visit the trail often to see the variety of native plants that each season offers.

Resources

Virginia Wildflowers - <https://www.facebook.com/VirginiaWildflowers/>

Brooklyn Botanic Garden - https://www.bbg.org/gard.../article/native_spring_ephemerals

Fig Trees

By Debbie DuVal, March 21, 2002

After many unsuccessful attempts at growing fruit trees and berry bushes, I turned my attention to fig trees. Their shape, leaves, and the sweet bite-size fruit won me over. Naturally sweet, figs are full of soluble fiber and loaded with vitamins and minerals.

History

Edible figs were cultivated as early as 9,400 BC and were mentioned in the Bible. Today they are grown around the world.

The common fig tree, *Ficus carica*, is parthenocarpic, that is, it produces fruit without fertilization or pollination.

Hardy Fig Tree Varieties in Zone 7a

- Celeste
- Brown Turkey
- Chicago Hardy
- Marseilles

Care and Planting

Fig trees are best planted in spring or fall. They like hot summers and mild winters and require 6-8 hours full sun a day. Allow at least four years for the tree to produce fruit. They require very little pruning or fertilizer, but young trees do need protection during winter, especially during the first 3-4 years. A chicken wire cage around the plant filled with hay, straw or leaves works well.

How to enjoy figs

Last summer, my figs were so plentiful I made fig muffins, fig cake, and fig butter.

Figs last up to three months in the freezer, but, once picked, fresh figs only last two to three days the refrigerator.

Bacon-wrapped figs and figs with goat cheese and honey are delicious, but for me, the best way to enjoy them is fresh from the tree.

Consider adding fig trees in your yard; I am happy I did.

<https://cvog.blogspot.com/.../growing-fugs-in-central-va...>



It Makes Scents!

By Rebecca Crutchfield Crow, March 28, 2022

In the garden you can have the best of many worlds -- flowers that are beautiful, scented, non-invasive AND deer resistant.

White, pink, or purple hyacinths bloom in early springtime and spread their heady perfume through the air.

Some narcissus varieties offer a stronger, sweeter scent than others. Brent and Becky's creamy petaled, yellow cup hybrid, Sweet Love is one intensely fragrant mid-spring delight.

Tiny, potently sweet lily of the valley's white or light pink bells can scent the garden for several weeks.

Peonies, in many different colors and varieties, offer a clean fresh perfume in late spring.

And what would spring be without the sweet smell of lilacs? Typically purple, the tree-like shrubs also come in white, magenta, or pink.

Many of the most fragrant flowers are white, making them doubly suited for moon gardens to enjoy on cool summer evenings.

A summer staple in the South, flowering magnolia trees open their large sweet-scented flowers in May and June.

Certain cold-hardy varieties of gardenias, a flowering shrub with a heavy intoxicatingly sweet scent, can successfully be grown in Virginia.

Moonflower, a hardy annual vine that flowers until mid-fall, has 6-inch flowers that open at dusk and emit a clean fresh fragrance.

Do research online before you shop to make sure scented plants are non-invasive, deer resistant and will grow in our hardiness zone 7. Consider placing a flowerbed or pot with lovely, scented plants by a patio, entryway or near an open window.

<https://brentandbeckysbulbs.com>



Bumblebees and Redbuds

By Pat Lust, April 4, 2022

Our native Redbud trees (*Cercis canadensis*) are great magnets for bumblebees and many other native pollinating insects. My backyard potting station is located below a redbud tree, and I love to work there when the tree is in bloom. It literally hums with bumblebees.

Redbud trees usually grow on the edge of a wooded area and bloom with a beautiful pink/magenta profusion of color in early spring. Unlike the invasive Bradford pear that blooms at about the same time, the redbud is a major contributor to the environment. Bumblebees and other insects emerging from hibernation are attracted to the redbuds, and, in exchange for the nectar, bees provide pollination service to the trees. While the redbuds trees are buzzing like crazy, there is very little insect activity on a Bradford pear.



University of California Master Gardeners of Butte County

Once the flowers have run their course, lovely heart-shaped, deep green leaves cover the redbud trees. On the native trees the leaves appear in the spring with a tinge of red and then turn yellow in the fall. Breeders have developed many cultivars of redbuds with a wide variety of attractive leaf colors. "Forest Pansy" is a favorite for its red/burgundy color.

Did you know that redbud is a legume? The flowers are edible and make a beautiful accent in a salad. And I hear they are good pickled, too.

Resources

Eastern Redbuds Support Early Pollinators - PennState Extension: <https://extension.psu.edu/eastern-redbuds-support-early...>

From the Field: Trees for Bees – Xerces Society - <https://xerces.org/blog/from-the-field-trees-for-bees>

Moss in Your Garden

By Lisa Oxley, April 11, 2022

Regarded as the first “land plant,” mosses are thought to have evolved from green algae 500 million years ago. Today, they include more than 10,000 species.

You may have already some in your garden or nearby woods.

Some people go to great lengths to eradicate moss, but opinions are changing. In fact, moss lawns can be cost-effective and ecological, not to mention beautiful.

Once established, mosses require little maintenance. They don't need to be watered, mowed, or fertilized, as they can obtain water and nutrients from dew, precipitation, and dust particles. With enough moisture, they'll stay green year-round.

Mosses benefit the environment and help with erosion control and rainwater filtration. They protect amphibians, insects, and micro-organisms.

They'll grow in poor soil, deep shade, compacted soil, on bark, rotting logs, rocks, sidewalks, cliffs, rooftops, and places other plants won't. They are even used to reclaim land that has been damaged by mining, toxic runoff, and heavy metals.

Intrigued? Is moss already in your garden? Are there bare spots where nothing does well? Maybe you should consider a moss garden.

Visit established moss gardens for ideas and designs. Consult experienced moss gardeners. Research books and online sources.

Then design with moss in mind. Set the stage with pathways, seating, and lighting. Choose companion native plants and add statuary and water elements.

Maintenance is simple: clear debris with a light broom or electric blower and weed regularly.

Resources

<https://extension.umd.edu/resource/moss-landscape>

<https://www.lewisginter.org/gardening-moss-metamorphosis/>

<https://www.gardengatemagazine.com/.../marvelous-moss.../>



Native Keystone Plant Collections

by Rebecca Crutchfield Crow, April 18, 2022

A keystone is a center of a Roman arch. If you take the keystone out, the arch collapses. In the same way, if you take keystone native plants out of food webs, the food webs collapse. These native plants are essential to caterpillars that feed our baby bird populations and pollinators.

Are you wondering which native keystone plants are the best to buy for our area? Dr. Doug Tallamy, famed entomologist and wildlife ecologist, and conservationist Jarrod Fowler, have done the work for you!



According to The National Wildlife Federation (NWF), Dr. Tallamy's "University of Delaware research team have identified the keystone native plants that support 90% of butterfly and moth species. The native pollen specialist bee and plant research was conducted by Jarrod Fowler."

NWF has provided Dr. Tallamy and Mr. Fowler's curated selections as collections for you to either buy from them or from your local nursery. You can buy collections with one, three or four varieties of plants. At \$68, or a little over \$11 per mature plant, a six-piece collection is reasonably priced, particularly as the mature plants are shipped free.

The website also has a handy planting design suggestion for each collection, plant information, as well as how many butterfly and bee species each collection supports.

Resources

<https://gardenforwildlife.com/.../native-plants-for-virginia>

<https://gardenforwildlife.com/.../how-to-plant-your...>

Callery Pear—A Flowering Menace

By Kitty Williams, April 25, 2022

Ah, springtime! Clouds of white blossoms explode throughout woodlands and manicured landscapes in Goochland, Powhatan and around Virginia.

But wait... Handsome is as handsome does, as they used to say. Not all white-flowered shrubs are as lovely as they look. Bradford pear trees, originally introduced by the U.S. Department of Agriculture in the 1960s, are a cultivar of the Callery Pear (*Pyrus calleryana*), a shrub native to China and Vietnam. They were sold in nurseries throughout the United States as reliable, fast-growing blossoming trees. They seemed nearly ideal.



However, their wild offspring are “invasive and problematic,” explained Lori Chamberlin, Forest Health Manager with Virginia Department of Forestry in Charlottesville.

“Callery Pear can take over sites, especially open fields or disturbed lands. It prevents regeneration of other native plants leading to reduced biodiversity. The thorns may puncture tires of tractors and cause other damage,” she wrote. As if that weren’t enough, they’re vulnerable to storm damage, and the flowers that bloom amidst those FOUR-INCH THORNS smell like rotting fish and attract flies.

If you love your Bradford pears, don’t despair. Excellent replacements exist – both natives and non-invasive nonnatives. Some states even offer replacement trees (are you listening, Virginia?).

Some possibilities include

- Serviceberry, *Amelanchier spp.*
- Blackgum (*Nyssa sylvatica*)
- Eastern hop-hornbeam (*Ostrya virginiana*)
- Eastern redbud (*Cercis canadensis*)
- Blackhaw viburnum (*Viburnum prunifolium*)
- Flowering dogwood, (*Cornus florida*)
- Green hawthorn, (*Crataegus viridis*)
- White fringe tree (*Chionanthus virginicus*)

Resources

<https://dof.virginia.gov/alternatives/>

<https://extension.illinois.edu/.../2021-04-16-certain-air...>

<https://vtx.vt.edu/.../callery-pear-trees--spring...>

Pruning Boxwood

By Nancy Stephenson, May 2, 2022

Boxwoods are popular as hedges, companion and foundation plantings, formal garden edging and even topiaries. All these uses require some pruning to control size, maintain shape, improve health, and rejuvenate old shrubs by promoting new growth.

Although there are several varieties of boxwood, nurseries typically carry Littleleaf Boxwood (*B. microphylla*), Common Box (*B. sempervirens*) and Korean Boxwood (*B. sinica* var. *insularis*), as well as many hybrids of these species. Selecting the appropriate cultivar will determine how often they must be pruned, so research before buying.

Avoid pruning boxwoods in the late summer and early fall when the new shoots may not harden off in time for winter weather and could be damaged. Any other time of year is fine.

Two ways to prune boxwoods are selective pruning (thinning) and shearing.

The selective method involves removing three to six inches of branches throughout the shrub. This allows air and light to penetrate, encourages growth and reduces the potential of fungal disease. Selective pruning will also promote sturdier stems to minimize damage from snow and ice.

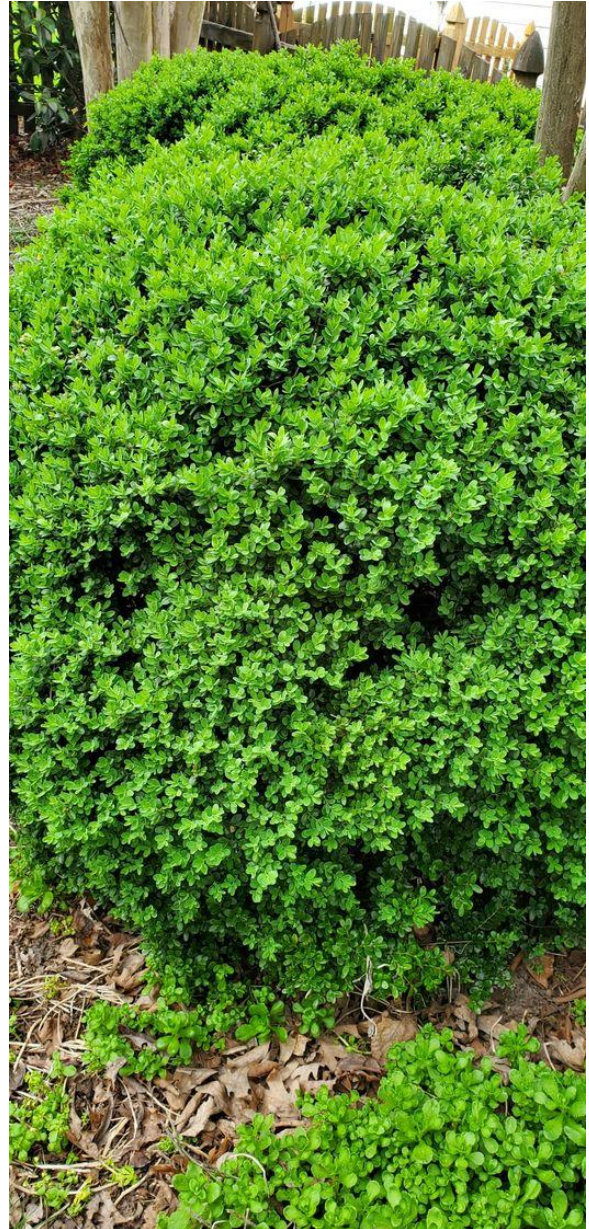
Shearing uses a long-blade trimmer to shape a shrub. It requires care and skill to avoid injuring the plant and introducing disease.

Fungal boxwood blight is a threat in our area, so sanitize your pruning tool with 70% alcohol between shrubs or after each cut. (Bleach corrodes metal and will eventually ruin your tools.) If your shrub is already diseased, remove the clippings promptly, bag them and take them to the landfill.

Resources

https://www.pubs.ext.vt.edu/.../430/430-455/430-455_pdf.pdf

<https://www.pubs.ext.vt.edu/.../426/426-603/HORT-290.pdf>



Don't Build Mulch Volcanos!

By Rebecca Crutchfield Crow, May 9, 2022

Do your trees a favor! Don't pile mulch way up high against their trunks. These 4-inch (or greater) mounds of mulch, or "mulch volcanos," may be a common practice, but they can cause your tree to decline and die. Moisture from mulch directly in contact with the tree's bark can cause the bark to rot. Deep mulch suffocates the roots, weakening the tree and making it an easy target for borers.

Used correctly, mulch retains soil moisture, retards weed growth and eventually breaks down to improve soil structure. However, you only need 2 to 3 inches. Spread it up to the tree trunk's flare or root collar, or to where the main roots connect to the tree trunk. Be careful to keep it several inches away from the trunk and extend it out to the tree's drip line.

Don't feel bad if you have mulch volcanos in your yard. Take action! Simply rake back the mulch (being careful not to scratch the bark with your rake), expose the root collar, and move the excess mulch to another location.

Even landscaping professionals are guilty of installing and maintaining high mounds of mulch around trees year after year. So, if you use a professional service, keep an eye out for the erupting volcanos! Share your knowledge with them! Insist that they rake back the mulch mounds to improve the health and longevity of your trees.



Plants can be Hazardous to your Dog's Health

By DanaDee Carragher, May 16, 2022

Whether you are an avid gardener or have a few potted plants indoors, you should be aware that some plants might not be your dog's best friend. Don't fall for the myth that dogs instinctively avoid dangerous plants. While it is sometimes true for animals in the wild, dogs don't have the ability to distinguish between safe and unsafe plants. In fact, many shrubs, trees, and flowers commonly found in the Virginia garden and in the wild are dangerous if your dog eats them. Some can cause discomfort, some will make your dog miserable, and some can even be fatal if ingested.

The American Kennel Club has a great list of plants that can be hazardous to your dog's health, and if you have an epicurean canine or a crazy pup you should be aware of them. Check out www.AKC.ORG and search "poisonous plants" for a comprehensive list. Many of our common Virginia plants, such as azaleas and rhododendron, holly, hydrangea, ivy, peonies have made that list.

If you know your dog has eaten a poisonous plant, move it away from the plant and make sure it is breathing, alert and behaving normally. If your dog is NOT behaving normally, call your veterinarian or the nearest emergency veterinary clinic immediately.

Resources

<https://www.akc.org/.../protect-your-pooch-from.../>

<https://www.akc.org/?s=poisonous+plants>

<https://www.akc.org/products-services/akc-vetline/>

Mophead Hydrangeas

By Nancy Stephenson, May 23, 2022

The pink and blue flowers of *Hydrangea macrophylla*, known also as mophead or bigleaf hydrangeas, will start appearing in gardens soon and typically continue blooming through summer.

Flower colors are determined by soil pH -- acidic soils produce shades of blue whereas alkaline soils will produce shades of pink.

The deciduous shrubs grow up to 12 feet tall, depending on the variety selected. They prefer morning sun and afternoon and evening shade. Spring or fall is the best time to plant them. They require frequent watering, preferably at the ground level to avoid fungus on their leaves.

This type of hydrangea should be pruned shortly after flowering to promote the growth of new flower buds for the following year. Late summer pruning will discourage bud formation.

Two ways to propagate hydrangeas are by layering or taking cuttings.

Layering involves digging a small trench and bending a branch into it and covering the branch with soil. The stem will start to produce roots and can eventually be separated from the mother plant.

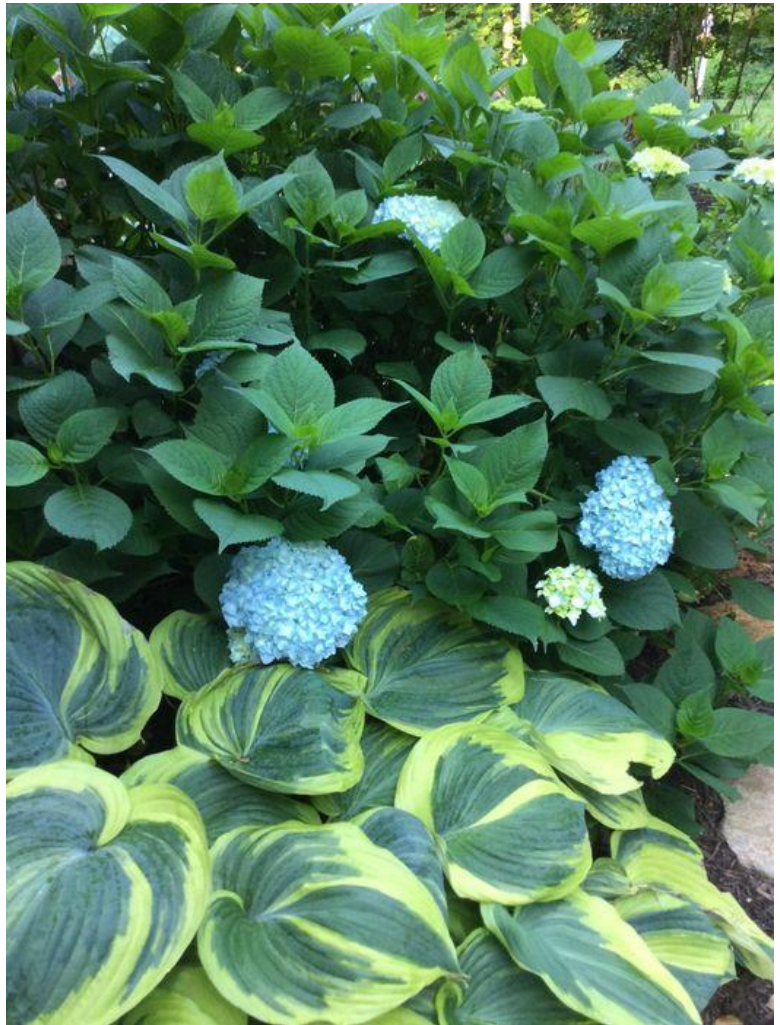
Cuttings from soft wood can be taken in early summer. Each cutting should be about 3-5 inches and have at least three leaves without flowers. Make an angle cut near the node (where the leaves are attached), dip the freshly cut end into a rooting hormone and place in moist soil. Keep the soil moist and cut the leaves in half to further retain moisture and prevent wilting.

Resources

<https://hgic.clemson.edu/factsheet/hydrangea/>

<https://extension.uga.edu/publications/detail.html?number=C973&title=Growing%20Bigleaf%20Hydrangea>

<https://ag.umass.edu/.../why-hydrangea-macrophylla-dont...>



Soil Testing

By Connie Sorrell, May 30, 2022

“Don’t Guess, Soil Test” is the catchphrase for the Virginia Tech Soil Testing Lab.

Whether you want a productive vegetable garden, beautiful shrubs and perennials or a lush lawn, a soil test should be your first step. Once you know your soil, you can confidently and correctly add any amendments your plants need to be healthy and productive.

Healthy plants resist diseases, withstand insect damage, and better compete with weeds. On the other hand, incorrect applications of fertilizer or lime can be costly, both in plant health and money.



Soil testing determines the soil acidity, the amount of organic matter available, and any nutrient deficiencies. Phosphorus, calcium, potassium, magnesium, zinc, copper, iron and soluble salt levels are all tested. The resulting report indicates what amendments are needed for the types of plants you are growing, and how and when to apply them so as not to damage the environment, your plants – or your budget.

Forms and soil test boxes are available at your local county extension office. Soil samples can be mailed to the VT Soil Testing lab for analysis. Indicate on the form what crops or plants you have, and within three days of receipt, the Lab will email results and tailored recommendations for corrective action, if needed. Each test costs \$10.00.

Many private companies also provide soil test services.

More information

<https://www.soiltest.vt.edu>

What is a weed?

By Kitty Williams, June 6, 2022

There are weeds – and then there are weeds.

Some are invasive, stifle desirable plants and decrease biodiversity.

For others, it's a matter of opinion. "A **weed** is ... any plant that is considered undesirable, unattractive or troublesome, especially when growing where it is not wanted," according to the University of Minnesota Extension.

Attitudes to "weeds" are evolving as gardeners rediscover the value of native plants – and the downside of exotic invasives.

In other words, the common practice of eliminating violets, dandelions and mosses from our gardens, and investing significant capital in watering, fertilizing and caring for emerald carpets of lush grass dotted with exotic plants is under scrutiny.



Frankly, plants that support wildlife and pollinators *can* challenge conventional garden design. However, among their myriad benefits, they feed the caterpillars that become butterflies or nourish fledglings that become songbirds and fill our early mornings with song.

On the other hand, many pretty, "pest-resistant" plants evolved in distant parts of the globe and can't support local and migrating birds, bugs and other critters. The result is vast food deserts that contribute to species decline.

Note: some weeds really are pernicious! Japanese stilt grass, kudzu, ailanthus and paulownia really do have to go. Last year, Rachael Watman, GPMGA's own kudzu enthusiast, called in the Forestry Department's big machines to help with the "Vine that Ate the South." (She wrote a SYK tip on this page last June!)

VCE's publication on Exotic Invasive Plants explains the nature and effects of these plants and suggests control methods. Search www.pubs.ext.vt.edu for other organic weed control methods.

<https://www.facebook.com/166194.../videos/10222372878265098/>

<https://www.pubs.ext.vt.edu/.../420/420-320/CNRE-105.pdf>

Houttuynia

By Pat Lust, June 13, 2022

Several people have asked me lately about Houttuynia – or chameleon plant.

It's in my own garden and I wish it wasn't. Many years ago, a local nurseryman gave me some as a freebie, so I can tell you from experience that it is a hateful nuisance.

In short, if you don't already have it, don't plant it!

Houttuynia cordata is native to China and Japan and has been imported as an ornamental plant. If planted in the sun its heart-shaped leaves will be very colorful. In full shade it will remain mostly green. It thrives in moist soil and is happy along the margins of ponds and waterways.



Photo from North Carolina State University Extension

Much like mint, it is a fast-growing herbaceous ground cover that spreads by underground rhizomes. So far, I don't see it on any of the Virginia invasive species lists, but it can also spread by seeds which makes it a risk for becoming harmful to nature (invasive).

Getting rid of Houttuynia is a challenge. Even if you use a commercial herbicide, you will probably still have to dig some of it up. I have reduced mine in the last few years by digging it as soon as I see it. That way the leaves can't perform photosynthesis – and the plant starves. When you dig it up, DO NOT dispose of it in your compost pile.

I am slowly winning this battle, I think...

Resources

Houttuynia cordata - <https://plants.ces.ncsu.edu/plants/houttuynia-cordata/>

Missouri Botanical Garden - <https://www.missouribotanicalgarden.org/.../PlantFinderCo...>

Beautiful Waterperry Farm

By Rebecca Crow, June 20, 2022

One of the most enjoyable perks of being a Master Gardener is going on field trips! Our recent trip to Waterperry Farm was nothing short of inspiring. Waterperry Farm is the creation of Mrs. Katherine Kane who has owned, developed and designed the 100-acre property for over 30 years.

Building on the “good bones” of the property, Mrs. Kane took an existing walled-in area, the previous property owner’s bull pen, and added elaborate vine-shaped wrought iron fencing on top of the stone walls. This area is now a glorious rose and clematis parterre garden.



Paths under arbors of fragrant climbing roses and more clematis lead to various garden rooms. The shade garden has hostas, azaleas, and hellebores that lead to a grassy path through herbaceous beds bursting with color. Among the many water features throughout are a small pool, a manmade stream complete with a small waterfall and a large pond.

Everywhere I looked there was something lovely to see. Tall, thin spires of Slender Sweetgum trees (*Liquidambar styraciflua*) looked like Cyprus trees and were just magical. Mrs. Kane said this sweetgum variety does not produce annoying spiky balls. Although she has planted many kinds of trees, she prizes most her many varieties of Japanese maples which she said she could not live without!

Waterperry Farm, located in Free Union, VA, has been featured on Virginia Home Grown and is available for tours and other events. Special thanks to Richard Nunnally, former Chesterfield Extension Agent, for recommending this destination and to Karen Webber for organizing our trip.

For more information, see <https://waterperryfarm.com/the-gardens/>

Invasive Plants for Sale

Introduction

By Pat Lust, June 27, 2022

Many gardeners have become keenly aware of problems that certain plants cause when they escape our gardens and get into places where they shouldn't be. Unfortunately, some in the nursery trade are still guided more by salability and profit issues than by the environmental issues. However, we the consumers can have a lot of influence on that.

Invasive plants are defined as follows:

- Brought to our region by humans, either accidentally or on purpose
- Have escaped cultivation, spread rapidly and crowd out native plants
- Use resources but do not contribute to the environment (do not support bees, butterflies and other wildlife)

When I was a young gardener, the term "invasive" referred to plants that behaved badly in our gardens. Now the term generally applies to plants that have escaped into the environment and are causing harm. Good terms to use for those misbehaving garden plants might be aggressive, persistent or nuisance.

GPMGA Sow You Know is launching a monthly series featuring plants that are available for sale in the nursery trade but are classified by the Virginia Department of Conservation and Recreation (DCR) and other agencies as invasive – harmful in Virginia. For each one, we will recommend several friendly alternatives. Watch our GPMGA Facebook page for this series on the fourth Monday of each month.

And please – do NOT purchase invasive plants for your garden.

References:

Morning Chore: 20 Invasive Plants Sold at Nurseries You Should Never Use - <https://morningchores.com/invasive-plants/>

Mount Cuba Center: Native and Invasive Plants Sold by the Mid-Atlantic Nursery Industry (A Baseline for Future Comparisons) - <https://mtcubacenter.org/.../Native-and-Invasive-Plants...>

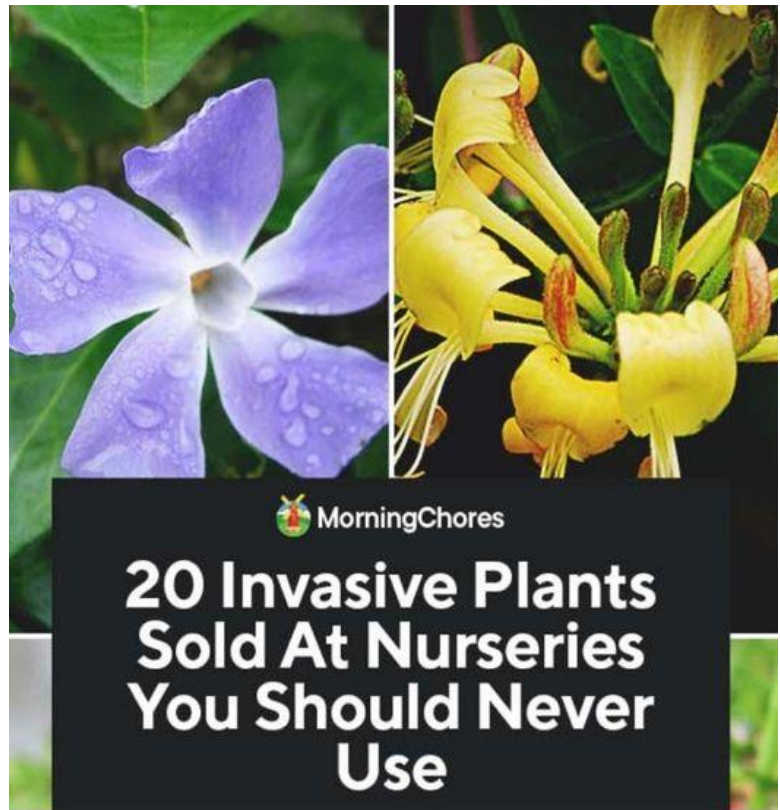


Photo from Morning Chores

Helpful Gardening Info!

By Rebecca Crow, July 4, 2022

As a Master Gardener who does residential site visits, I frequently rely on these tools. Many have been mentioned in previous Sow You Know posts, but here they are – all in one place.

1. **PictureThis**– a reliable plant identifier app available for iPhone or Android phones. (Free trial period, then monthly or annual payment options.) <https://www.picturethisai.com>
2. **Rutgers Deer Resistant Plants database** – <https://njaes.rutgers.edu/deer-resistant-plants/>
3. **Native Plants for Virginia’s Capital Region** – Native trees, shrubs, perennials, grasses and ferns loved by butterflies and caterpillars with their water/sun requirements. <http://www.vaplantatlas.org/>
4. **Sandy’s Plants-Advanced Search** – Free plant website landscaping tool <https://www.sandysplants.com/Plant-Finder>.
5. **Smart Lawn** form & instructions (Goochland residents only). \$20 fee for Virginia Tech lab report and recommendations for great-looking lawns. <https://goochland.ext.vt.edu/.../2019%20GP%20SMART%20Lawn...>
6. **Soil Test** forms and kits for lawns, gardens, fruit trees and ornamentals may be picked up at either Goochland or Powhatan Extension Offices. \$10 fee for Virginia Tech Lab report with results and recommendations. www.soiltest.vt.edu
7. **Pollinator native plant collections for Virginia** curated by Dr. Doug Tallamy, for sale online or locally. <https://gardenforwildlife.com/.../native-plants-for-virginia>
8. **GPMGA HOPE from the Garden** Checklist – five practical gardening principles to make a positive impact on our planet. PDF below.
9. **Arbor Day Foundation’s Best Tree Finder**: Tree Wizard helps select the best tree to plant <https://www.arborday.org/shopping/trees/treewizard/Intro.cfm>
10. **Virginia Conservation Assistance Program** – free site visit to discuss water runoff and rain garden installations. Cost sharing available for eligible installation <https://vaswcd.org/vcap>

To request a free Master Gardener residential site visit for your Goochland or Powhatan home, discuss plant problems or submit photos showing your concerns, email gpmastergardener@gmail.com

Tomatoes – Part I – In the Garden

By Vickie Botkin, July 11, 2022

July is a gardener's delight with all the luscious, lovely, ripe tomatoes ready for slicing and canning. Some people prefer to grow heirloom tomatoes for various reasons, but I prefer to stick to the same varieties each year as I know how they will produce in my soil. They are proven varieties that will reliably yield the crop I need for slicing and canning.



Tomatoes prefer eight hours of sun but mine get about six hours and do well. While they are warm weather plants, tomatoes don't like temperatures above 90 degrees. In Central Virginia we have many days above 90, but mine still survive and do very well. You are supposed to plant them at least 36 inches between plants and I don't do that either – maybe 24 inches at the most. Most of the time when I pick, I have to squeeze between the plants.

Some people remove suckers from their tomatoes. (A sucker is a small shoot growing out of the joint where a branch meets a stem.) I don't because I feel that it would promote disease and I just let them grow. Since I have them planted so close to each other, I don't like to touch the plants if I can help it.

I plant mostly indeterminate tomatoes, which means they grow all season. Determine varieties will produce one crop and that is it.

More about tomatoes next week – pre-season prep.

Resources

Virginia Cooperative Extension: Tomatoes https://www.pubs.ext.vt.edu/.../426/426-418/426-418_pdf.pdf

Tomatoes – Part II – Pre-Season Preparation

By Vickie Botkin, July 18, 2022

Having luscious, lovely tomatoes in July requires a lot of prior planning and preparation. If you don't already have them in your garden, save this post so you will be ready next year!

About 6-8 weeks before the last frost date– April 20 for Central Virginia – I start my seeds under a grow light. I put one seed in each cell of a 24-cell system and keep the cells moist, not soaking. Sometimes I use a heating mat in addition to the grow lights. After germination, I remove the plastic cover from the system. When the seedlings get their first true leaves, it's time to transplant them to 3-4-inch pots.



Of course, you can also buy plants from a nursery.

Tomatoes do not like the cold, so watch out for late frosts. Plants should be hardened off before planting in the ground. Put the potted seedlings outside to acclimate to temperature changes. If you put them directly in the ground before hardening off, they will have a real shock!

After a few days, transplant the seedlings as deeply as possible in raised beds. If they are leggy, plant them on their side to get more root. I use a little Black Cow or Tomato Tone at this point and no fertilizer after that. Just wait for the beautiful crop in July

Some favorites for canning include Star, Better Boy, Supersonic, Chef's Choice Yellow and Orange – all late-season tomatoes. And, for eating, I choose earlier varieties like Goliath Early, Early Doll, Sophie's Choice and 4th of July.

Resources

VA Cooperative Extension: Tomatoes https://www.pubs.ext.vt.edu/.../426/426-418/426-418_pdf.pdf

Native Alternatives to Invasive Mimosa (*Albizia julibrissin*)

By Katrina McIntosh, July 25, 2022

All around roadsides, clearings and wooded areas of Virginia's Capital Region, trees with fuzzy pink flowers are blooming. These are *Albizia julibrissin*, commonly called Mimosa or Silk trees. Native to Asia, they were introduced to the U.S. in 1745 as ornamentals. Since then, they have escaped cultivation and distributed themselves throughout the native landscape. Anyone who has one in their yard will ask if you want one — the seedlings come up everywhere!



While the fragrant, pink pom-pom flowers are attractive to many, Mimosa trees are included on the Virginia

Invasive Plant Species list (and those of several other states) for good reasons. They grow vigorously and have displaced native trees. The seeds also contain a neurotoxin that can be dangerous when ingested by animals. And like most fast-growing trees, the limbs are weak and prone to storm damage. In spite of this, these trees are still available at many retailers.

So, what are some alternatives to planting a Mimosa tree? Consider the following options:

Eastern Redbud, *Cercis canadensis*. These 15'-35' deciduous trees have beautiful deep pink flowers in the spring and tolerate varied growing conditions.

Fringetree, *Chionanthus virginicus*. Growing only to 20', these lovely deciduous trees have fragrant white blooms in late spring that mature into blue-black fruits that provide a food source for birds.

Sourwood, *Oxydendrum arboreum*. A 20'-30' deciduous tree with fragrant cream panicles in June-July. Showy red to purple fall color and furrowed bark provide multi-season interest.

Resources

Native Alternatives to Invasive Plants by C. Colston Burrell, Brooklyn Botanic Garden, 2006.

Brooklyn Botanic Garden https://www.bbg.org/.../native_alternatives_plant_list1

North Carolina State University Extension <https://plants.ces.ncsu.edu/plants/albizia-julibrissin/>

Heat Survival Tips for your Plants

By Rebecca Crow, August 1, 2022

Summers in Virginia are HOT, but you can help your plants survive the heat.

- 1) **Set your lawn mower to a higher grass cutting setting.** Lawns can turn to dust bowls from repeatedly mowing the grass too short in the heat of summer.
- 2) **Mulch.** Azaleas and Dogwoods, for example, have shallow roots systems. They appreciate the addition of two to three inches of mulch spread out to the drip line, four inches away from the main trunk. Water after mulching to retain moisture around the roots.
- 3) **Hold off on fertilizing.** Fertilizing encourages new growth in plants, which during a heat wave will only further stress them. It's better to fertilize in the spring so that new the plant growth is more adapted to handle the heat when summer arrives. Potted plants are the exception. Because they should be watered frequently, nutrients are flushed out, so fertilize potted plants with a water-soluble fertilizer every other week.
- 4) **Water in the morning and deeply.** Frequent watering encourages shallow root formation, so water less often. Watering in the morning, when it is cooler, will also reduce water evaporation as will the addition of a drip irrigation system. Avoid wetting plant leaves as this can lead to leaf scorch as water magnifies the intensity of the sun's rays.
- 5) **Wait to prune, transplant, or re-pot.** These activities should be done in the fall.
- 6) **Check plant labels for heat tolerance rating.** For example, daffodils may be labeled 3-8, 7-1 (winter hardy in zones 3-8 and heat tolerant in zones 7-1).

Resource

American Horticultural Society's Heat Zone Map:

<https://solanomg.ucanr.edu/files/245158.pdf>

Japanese Beetles, Part I

On the Attack

By George Schuette, August 8, 2022

Japanese beetles (*Popillia japonica*) are again at work in Powhatan and Goochland gardens, busily eating the leaves of flowers and vegetables. Adult beetles are about 1/2-inch long, with a hard shiny green/reddish-brown colored exterior and patches of white hairs along the sides and tip of the abdomen (Figure 1). A clear sign of Japanese beetle infestation is “skeletonized” leaves (Figure 2).



Figure 1: Adult Japanese Beetle



Figure 2: Skeletonized Leaf

First found in New Jersey in 1916, it is possible they entered the country earlier as larvae in the soil of iris plants imported from Japan. After spreading through states east of the Mississippi River, they are now moving westward. At this point, eradication is impossible; the only option is to limit their damage by population control.

The Japanese beetle life cycle is relatively short. Beetle grubs winter underneath turfgrass. As the soil warms up in the spring, they move upward to feed on grass roots. In late spring adults emerge and begin feasting on over 300 species of flowers, vegetables, and trees – including yours. After mating during the summer, females dig holes 1-3 inches deep where they lay eggs for next year’s beetles. These eggs hatch into beetle grubs that again feed on grass roots until colder weather forces them deeper into the soil.

The mobility of adult Japanese beetles limits the effectiveness of chemical and biological methods available to the homeowner, but don’t despair. Watch this space – next Monday, Part II will examine your options for controlling these pests.

References

Japanese Beetles. VCE. <https://www.pubs.ext.vt.edu/2902/2902-1101/2902-1101.html>

Japanese Beetle, CSU Extension, <https://extension.colostate.edu/.../japanese-beetle-5-601/5-601/>

Japanese Beetles, Part II

Controls

By George Schuette, August 15, 2022

Treating your lawn with insecticides may kill Japanese beetle grubs, but when your garden blossoms, beetles in neighboring yards will come on over.

On larger properties, insecticides *are* an option. Chemical insecticides (e.g. trichlorfon, imidacloprid, and halofenozide) have proven effective for reducing grub populations in lawns. Biological control agents (e.g. “Milky Spore Disease” *Paenibacillus papillae* bacterium) are available for homeowners willing to accept less effective control for a more environmentally friendly approach.

Japanese beetle traps can make your problem worse. In principle, it’s a great idea: attract beetles with a powerful pheromone scent, then trap them. You see, the pheromone attracts beetles not only from your yard, but from your neighbors’ yards as well. A trap never captures every beetle, so a single trap can *increase* the number of beetles in your garden. Adding more traps will attract more beetles from outside your yard, making a bad problem worse.

Manually capturing beetles as they feed is simpler and less expensive, and won’t make the problem worse. It is easier to do in the cooler temperatures of early morning or late evening when the beetles are sluggish. And it gets you into the garden. Brush the beetles off the plant into a bucket of soapy water (to drown) or into a 1-gallon plastic bag (to be crushed – my personal favorite).

Finally, stop watering your lawn from July through mid-August when the beetles are most active. The dry soil will discourage females from laying eggs, which helps reduce the beetle population next summer.

The Japanese beetles are here to stay. But as gardeners, so are we.

References

What to do about Japanese Beetles. Illinois Extension. <https://extension.illinois.edu/.../2021-07-01-what-do...>

Managing the Japanese Beetle: A Homeowner’s Handbook. USDA. https://www.aphis.usda.gov/plant_health/plant_pest_info/jb/downloads/JBhandbook.pdf



Native Alternatives to Invasive Butterfly Bush

By Pat Lust, August 22, 2022

Some gardeners love butterfly bushes, *buddleja (buddleia) davidii*, because their flowers are beautiful, and their high sucrose nectar attracts a lot of butterflies. But there are very good reasons to look for alternatives instead.

Butterfly bushes produce over 100,000 tiny seeds per bush that are distributed by the wind. Even those advertised as sterile usually produce a few seeds.

“People who say butterfly bush doesn’t move around are in the denial stage,” notes Doug Tallamy. A typical invasive plant, it escapes cultivation, gets into nature and starts crowding out the native plants that support wildlife. This disrupts the ecosystem, depriving birds, insects and other critters of their food and resources for successful reproduction.



North Carolina State University Extension

Gardeners who plant butterfly bushes with good intentions may be contributing to the decline of certain species.

Enticing butterflies with butterfly bushes is like bait-and-switch. They are lured by the sweet treat of the nectar, but that’s all they get. Neither monarchs nor any other native butterfly can use a butterfly bush as a larval host plant. Butterfly-friendly gardens must provide both nectar and host plants to support the next generation of butterflies.

Instead of butterfly bushes, consider native bushes that do provide beneficial habitat:

- Buttonbush, *Cephalanthus occidentalis* – Deciduous bush, pink-white flowers. Attracts butterflies, bees and other insects. Fruit attracts birds. Deer resistant
- Summersweet, Sweet Pepperbush, *Clethra alnifolia* – Deciduous bush, white-pink flowers. Attracts bees, butterflies and hummingbirds. Provides fruit for birds and mammals.
- Virginia Sweetspire, *Itea virginica* – Deciduous bush, white flowers. Attracts insects and birds. Great fall foliage color.

And, if you want more monarch butterflies, plant more milkweeds, *asclepias*.

Resources

Lady Bird Johnson Wildflower Center – <https://www.wildflower.org/plants/>

Digital Atlas of the Virginia Flora – <http://www.vaplantatlas.org>

How to Buy a Healthy Orchid

By Susan Gracik, August 29, 2022

Orchids are among the most adaptable and widespread plants on the planet. They can be found all over the world, and their popularity as a house plant has increased significantly in recent years.

Today, orchids can be purchased at orchid nurseries, garden centers, florists, orchid shows, grocery store and big box stores.

Buying an orchid for your home may seem like a daunting task, but these few tips can help you find the perfect plant.

Once you've decided on what type of orchid to buy, compare the orchids.

- Plants with larger flowers and more buds are usually the healthiest.
- Buds should be green, not yellow.
- The flower spike should be staked and not bent.
- Leaves should be green, firm, unbroken and self-supporting.
- Check on top and under leaves for signs of pests and disease and avoid purchasing an infested plant.
- The orchid should not wobble in its pot – this may indicate a poor root system.
- After selecting your orchid, be sure to get its name so you will know how to care for it properly.

When transporting your orchid home, secure the plant in the car so it cannot fall and damage the flower spike. On sunny days, shop early or late in the day to avoid excessive heat and direct sunlight

Once home, take the orchid to the sink and water with room temperature water, letting it run through the pot.

Enjoy!



Mt. Cuba Plant Trials

By Rebecca Crow, September 5, 2022

Many varieties of the same plants are available for purchase. How can you know which one will perform the best in Goochland or Powhatan?

The Mt. Cuba Center in nearby Wilmington, Delaware, has some excellent suggestions and advice.



The center evaluates multiple varieties of certain native plant to identify which are best for our mid-Atlantic region. Among them are mountain hydrangea, echinacea, helenium, coreopsis, summer phlox, woodland phlox, monarda, baptisia, heuchera and aster.

Conditions in the 15,000 sq. ft. trial garden mirror those in Goochland and Powhatan, including sunny and shady areas and clay loam soil with average pH of 6.5. It's in the same USDA Cold Hardiness Zone of 7 as Virginia.

Plants are tested in real-life conditions. Perennial plants are watered only during the first year of the three-year trial period, and pesticides are only used if there's a serious threat to the survival of the whole trial. Over the three-year period, they experience a variety of weather conditions. After the first winter only, dead plants are replaced to compensate for poor establishment or quality.

According to the website:

"Each taxa is evaluated weekly and assigned a rating based on a scale of 1-5 (5 being excellent). This rating takes into account habit, floral display, disease resistance, hardiness, and foliage quality. The average of these weekly ratings is then used to calculate the final score."

Trial results and educational resources are at <https://mtcubacenter.org/research/trial-garden/>

Sericea Lespedeza – A Horticultural Mistake

By George F. Schuette, September 12, 2022

The sarcastic adage “No good deed goes unpunished” certainly describes the horticultural history of *Sericea Lespedeza* (*Lespedeza cuneata*), a plant found along many roadways in Goochland and Powhatan counties.

A member of the pea family (Fabaceae), *Sericea* is a perennial legume native to eastern Asia. It was introduced in North America during the 19th century for erosion control, cattle forage, and food (seeds) for wildlife.



Figure 1: Stand of *Sericea Lespedeza*



Figure 2: Rounded leaf tip shape



Figure 3: *Sericea* root structure shape

Sericea adapts to a wide range of soil conditions and tolerates periods of extreme drought. But its benefits come at a high price. It aggressively crowds out native flora, mature seeds in the soil are viable for 20 years or longer, and wildlife avoid eating mature *sericea* because of its high tannin content. Today it is considered a “plague on the prairie” by many extension agents.

As *Sericea* fixes nitrogen from the air as fertilizer, it is still used as a minor component in commercial forage crops. It is not invasive in pastures or residential lawns when it competes with healthy forage grasses or turfgrass. Problems develop when it invades areas that are not regularly grazed or mowed. Removing *Sericea* by hand is an effective, but temporary, solution because of its extensive root system. A better solution is annually cutting it to the ground as soon as it appears in the spring and throughout the summer. Controlling *Sericea* with chemical herbicides is rarely necessary and should be a last resort in residential yards.

Resources

Plant Conservation Alliance Fact Sheet: Chinese Lespedeza

<https://www.invasive.org/.../pdfs/wgw/chineselespedeza.pdf>

Sericea Lespedeza: History, Characteristics, and Identification

<https://bookstore.ksre.ksu.edu/pubs/MF2408.pdf>

Conversion of *Sericea Lespedeza*-Dominant Vegetation to Quality Forages for Livestock Use

https://ext.vt.edu/.../pubs_ext.../460/460-119/CSES-219.pdf

Lespedeza virginica – A Royal Addition to Any Garden

By George Schuette, September 19, 2022

Unlike sericea lespedeza (*Lespedeza cuneata*), the invasive non-native perennial described in last week's tip, slender lespedeza (*Lespedeza virginica*) is welcomed in any garden. A member of the *Fabaceae* (bean) family, it fertilizes surrounding plants by fixing nitrogen. The plant blooms from late summer to early fall, when its pink pea-sized flowers provide nectar to bees and butterflies, and its seeds are food for quail and other birds.

Slender lespedeza grows in a wide range of soil types but prefers well-drained clay loam or sandy loam soils in full or partial shade. As a native plant, it requires minimal care once established, tolerating drought and dry soils, making it an ideal addition to a meadow or prairie garden that relies on rainfall for water.

It is a host plant for the larvae of the Eastern Tailed Blue (*Cupido comyntas*), a member of the Gossamer-Winged Butterfly group. The Blue is a small (2 in. wingspan) butterfly found in meadows and woodlands throughout the US, Canada, and Mexico. This butterfly has evolved an unusual defense against predators: in their caterpillar stage, Eastern Tailed Blues secrete a sugary solution to attract an army of ants for protection.

If you need any more reason to add slender lespedeza to your garden, then know that the British Royal Horticultural Society recognized it for its qualities with their Award of Garden Merit. *Lespedeza virginica*– the plant of royalty.

Resources

Slender Lespedeza (*Lespedeza virginica*), North Carolina State Extension Gardener Plant Toolbox
<https://plants.ces.ncsu.edu/plants/lespedeza-virginica/>

University of Kentucky, College of Agriculture, Food & Environment – Eastern Tailed Blue
<https://www.uky.edu/hort/butterflies/Eastern-tailed-blue>



Figure 1: Flowering Slender Lespedeza



Figure 2: Eastern Tailed Blue Butterfly

Cover Crops in the Vegetable Garden

By Audrey Hirsch, September 26, 2022

Fall is traditionally the time when gardeners relax from their spring and summer labors. One more task that can protect and nourish your garden soil next spring, though, is to plant a winter cover crop over your garden beds.

Soil left uncovered after the season is left vulnerable to erosion, weeds, and pests. Aply named cover crops manage erosion, add organic matter, improve soil quality, encourage biodiversity, and diminish pests, disease, and weeds. These plants help you maintain and build the structure of your soil, reducing erosion and improving soil structure all year long.



They serve a variety of other purposes, too. Some can remain in the garden to serve as green mulch for spring crops. Legumes add nitrogen to the soil to increase fertility. Decaying plant material contributes nutrients to be used by future crops.

Cover crops can out-compete weeds for light, water, and nutrients. Some have deep or tap roots that can loosen compacted soil, and some brassicas and mustards will fight soil borne diseases and pests, such as verticillium wilt, or root knot nematodes.

Popular fall-planted cover crops in Central Virginia include oats, winter rye, winter wheat, daikon radish and legumes, such as crimson clover and hairy vetch.

Winter cover crops should be planted by mid-October so they can germinate and become established before the first hard frost. They should be left to grow until spring when it is time for the spring garden planting. While some are killed by cold winter temperatures, most will go dormant and resume growth in the spring.

Pansies

By Pat Lust, October 3, 2022

Imagine a northerner's surprise when she first saw a Virginia pansy blooming in January snow! These cool weather lovers don't seem to notice a frost and can even make it through single-digit temperatures.

It's best to plant pansies in the fall, before the soil cools off, to give their roots a chance to get established before winter arrives. Once established, they will also be one of the first flowers to bloom in the spring as the temperatures warm up.

Growing pansies from seed is fairly easy, and plants in the garden often reseed themselves, but most gardeners prefer to buy already-started plants from a nursery. Choose young plants, preferably without any blooms, so they can develop their roots in your garden instead of in the nursery cells. Pansies are heavy feeders that prefer slightly acid, well-drained soil in a sunny to mostly sunny location.

Pansies are relatively disease and pest free, perhaps because they love the cooler weather when there aren't quite so many pests out there looking for lunch. They do attract slugs, especially in moist areas, and they are not deer resistant.

As we know them, pansies emerged from cross-pollination between various viola species in early 19th-century England. They continue to grow even more appealing due to the explosion of colors that have emerged from the competitive propagation practices of the late 20th century.

These beautiful and edible flowers also make perfect garnishes and decorations for almost any kind of food, from salads to entrées to desserts.

Resources

North Carolina State University Extension

<https://plants.ces.ncsu.edu/plants/viola-tricolor/>

How to Grow and Care for Pansies

<https://www.thespruce.com/pansies-growing-a-cool-weather...>



North Carolina State University Extension

Fall blooming natives – Asters

By Connie Sorrell, October 10, 2022

Fall asters are among the most nutritious food plants for native bees, bumblebees, honeybees and butterflies. They will extend your garden's food supply.

The Flora of Virginia Atlas lists several *Symphyotrichum* species native to Virginia. Five recommended by Plant RVA Natives Guide for to the Virginia Capital Region are:

Eastern Silvery Aster (*Symphyotrichum concolor*) perennial; densely hairy silver leaves; wand shaped inflorescence of heads violet-purple; yellow disk florets, found on roadsides, oak scrub, pine flatwoods and fields; blooms Sept-Oct.; Grows 12"-31"; full sun-part shade; good drainage, clay to loam to sandy soil.

Heart-leaved Aster, Blue Wood Aster (*Symphyotrichum cordifolium*) perennial; Pale blue to violet flowers in large, loose panicles; naturalized woodlands, meadows, or stream banks.; Can be weedy; self-seeds easily; pinching back produces bushier plant; tolerates shade well; moist, well drained soils; cut to ground after blooming to promote strong new growth.

Large-flowered Aster (*Symphyotrichum grandiflorum*) perennial; purple with yellow centers; dry woodland areas, along roadsides and disturbed sites; full sun to partial shade; good drainage; 12"-36" tall.

New England Aster (*Symphyotrichum novae-angliae*) perennial; large showy purple flower; 4' - 7' tall; 1" flowers; tolerates clay soil; great rain garden plant; cut flower; great source of nectars for migrating insects. More deer resistant.

New York Aster (*Symphyotrichum novi-belgii*) aka Michaelmas Daisy; larval host for the Pearl Crescent butterfly (*Phyciodes tharos*) butterfly; low growing may grow 3' to 5'; prefers full sun; requires well-drained soil and prefers sandy, loamy clay soils; good edging plant; works well with or as a substitute for chrysanthemums.

Resources

Flora of Virginia – www.vaplantatlas.org

Plant RVA Natives Guide – www.plantvirginianatives.org/plant-rva-natives)

Image: Eastern Silver Aster CC BY 4.0 Jay Horn - <https://www.inaturalist.org/photos/56416300>



Thinking about Planting for Spring?

BULBS AND OTHER GEOPHYTES

by Pat Lust, October 17, 2022

It's October and time to think about planting some of those bulbous roots that the stores are selling as bulbs. Well, some of them are bulbs, but not all of them are. Some are corms or rhizomes or just plain tubers. All of these, as a group, are called geophytes.

A geophyte is a plant that has an underground swollen structure that serves as a storage organ for food (carbohydrates) and water. The three general categories of geophytes are: bulbs, stem tubers and root tubers.



Photo borrowed from North Carolina State University Extension

A bulb is distinctly different from all the other geophytes because it has the baby plant inside the bulb. Cut a daffodil, tulip or onion (all true bulbs) in half and you will find a lot of layers, including the center, which is the embryo of a new plant. Cut a corm or rhizome in half and all you find just one solid hunk of flesh - no layers, no baby plant

One of our favorite rhizomes is the bearded iris. Have you noticed that the leaves come straight out of the rhizome without stems? That's because the rhizome itself is the stem, and a perfect example of a geophyte that is a stem tuber. (When it's time to bloom the plant gets generous with a more recognizable stem to show off the flower.)

Some of our favorite foods are geophytes:

- Bulbs – onions, shallots, garlic
- Rhizomes – ginger, turmeric
- Other stem tubers – potatoes, kohlrabi
- Root tubers – sweet potatoes, water chestnuts

So, plant lots of geophytes, both for their beauty and for your gourmet kitchen.

Resources

- "Bulbs and More." University of Illinois Extension - <https://web.extension.illinois.edu/bulbs/bulbbasics.cfm>
- "Five Facts: Geophytes. Florida Museum - <https://www.floridamuseum.ufl.edu/.../five-facts-geophytes/>

Native Alternatives to Invasive Miscanthus Sinensis (Chinese Silvergrass or Maidengrass)

By Katrina McIntosh, October 24, 2022

Grasses are striking additions to landscapes and are growing in popularity due to their architectural appearance and four-season interest. But all are not equally desirable. A very popular ornamental grass, *Miscanthus sinensis*, also known as maidengrass, silvergrass, or zebra grass, is one to avoid. This large, clumping grass is categorized invasive in 25 US states and DC. The wind-disseminated seeds escape cultivation and displace native grasses (which are crucial to wildlife habitat). In the winter, the seed heads persist, attracting songbirds which further spread the seeds.



In home gardens, *Miscanthus* can become a nuisance. The foliage tends to flop and often requires staking and frequent dividing. It is highly flammable and should not be planted close to your home.

While there are many *Miscanthus* cultivars that are less likely to self-seed, why not consider the following beautiful native grasses instead?

- Sugarcane Plumegrass, *Saccharum giganteum*. 6-12' tall with dramatic golden to red plumes in the fall. Very adaptable to many soil conditions, heat and air pollution tolerant.
- Pink Muhly Grass, *Muhlenbergia capillaris*. 3' tall with stunning pink/lavender feathery floral display in fall. Especially showy in a mass planting. Provides year-round cover for wildlife.
- Switchgrass, *Panicum virgatum*. 3-7' tall with pink flower panicles that remain attractive all year long. Very adaptable, high drought tolerance. Seeds attract birds and mammals.

For more on alternatives to invasives, see the following resources:

Brooklyn Botanic Garden Webpage https://www.bbg.org/.../native_alternatives_plant_list1

North Carolina State University Extension Webpage <https://plants.ces.ncsu.edu/plants/miscanthus-sinensis/>

Image Pink Muhly Grass *Muhlenbergia capillaris* plant photo by John E. Branch, Jr. [CC BY-NC-ND 2.0](https://creativecommons.org/licenses/by-nc-nd/2.0/)

Nature's Best Hope

By DanaDee Carragher, October 31, 2022

If climate change and biodiversity concern you, *Nature's Best Hope/Talks at Google* by Doug Tallamy is inspiring. In the video, he outlines ways we gardeners can help reverse the consequences of our neglect of nature and restore its balance.

The situation is catastrophic, Tallamy notes. Recent headlines describe an insect apocalypse. In the last 50 years three billion birds have disappeared from North America. Two thirds of our wildlife has vanished since 1970.

The pristine natural ecosystem we inherited has shrunk to only five percent of what it was in 1908 when Teddy Roosevelt first imagined the National Park System.

But Tallamy gives us hope, and an action plan using steps that each one of us can follow right in our own gardens. He says we have the power and responsibility to do the following:

- 1) Choose the right plants to restore biodiversity place. In the video, he suggests several good species to plant and introduces the best keystone plant. (Spoiler alert: it's the oak)
- 2) Shrink the lawn by half (he calls lawns "deadscape") – and add plants that support wildlife. If every homeowner did it, it would total 20 million acres, more than 20 national parks combined, to support insects and the species that depend on them.
- 3) Check your security lights – light pollution is a major contributor to insect decline. Use motion sensors and yellow LED lights
- 4) Create a layered landscape, so when caterpillars and insects fall from the trees, there are places they can hide. Use wild ginger, mayapple and ferns so they have something to eat.

Resources:

Nature's Best Hope/Talks https://www.youtube.com/watch?v=XCek-3S_js

www.nwf.org/NativePlantFinder/ suggests native plants that will thrive in your area so you can start planting right away.

<https://homegrownnationalpark.org> is a grassroots call-to-action website with inspirational videos, call-to-action articles and more.



Choose Your Mum Wisely

By DanaDee Carragher, November 7, 2022

FLORIST MUMS

If you're like me, you love the Virginia fall colors and look forward to displaying some pots of brightly colored mums on your doorstep or table. Orange, purple, yellow, rust and red blooms take you well into Thanksgiving. These beautiful plants are picky and are best grown as annual flowers for fall decoration. They probably won't survive the winter because they produce few or no stolons (a slender stem that grows horizontally along the ground, giving rise to roots and aerial (vertical) branches at specialize points called nodes), and they wilt if the weather is too warm. Mine get thrown on the compost heap in a fit of cleaning for Christmas.



GARDEN (SOMETIMES CALLED HARDY) MUMS

Usually sold in the spring, garden mums are hardy perennials that will come back every year when planted in a sunny spot in the garden. They produce underground shoots and stolons that enable them to survive cold weather — if well mulched. Remove the mulch once the ground thaws and cut back the dead stems before new growth appears.

Another way to keep garden mums over the winter is to put them in pots and move them to an unheated garage or shed after the first hard frost. Cut the stems to about 3-4 inches, wrap the pots and keep the soil slightly moist during winter dormancy. In the early spring, find a well-drained spot and plant them about one inch deeper than they were in the pot.

Resources:

<https://extension.unh.edu/.../can-fall-mums-be-planted...>

<https://extension.psu.edu/chrysanthemums>

How to Plant a Hardy Mum: Step-by-Step Gardening <https://www.youtube.com/watch?v=1f-0Yw4415c>

Photo courtesy photos-public-domain.com

Soil Health for Vegetable Gardens

By Kaz Mock, November 14, 2022

(In case you missed it *(back by popular demand)*)

The cooler weather has finally arrived! Perhaps you still have fall greens and carrots or beets growing? Ideally, your cover crop is also going strong, to provide you with organic matter to incorporate into the soil next spring.

Cover cropping is a helpful way to follow these basic tenets of soil health:

- Always keep soil covered with life
- Engage in minimal disturbance
- Maximize living roots
- Grow diverse plants

Another important tool for your gardening success is a soil test. It will eliminate guesswork and provide specific amendment recommendations to improve YOUR soil health. Stop by your extension office or visit the link below for more information. At only \$10 for a routine test, you'll get a wealth of information to give you a head start for growing thriving plants in the spring.



If nothing is currently growing in your garden, fall is a great time to work in those amendments, as well as some compost, before covering the growing space.

The perfect way to stave off any winter blues is to plan your spring garden! These days you need to order seeds early! Establish a plan with the Extension's Virginia Home Garden Vegetable Planting Guide which tells you the plant and harvest dates for each crop. Remember the soil health tenets, and prioritize crop rotation and attracting pollinators. Have fun drawing a garden map for each season and keep a journal.

Most importantly, get geared up to plant what you love to eat!

Resources

Building Healthy Soil: https://www.pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/426/426-711/426-711_HORT-244Pv2.pdf

Compost: What is it and What's it to You?

https://www.pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/HORT/HORT-49/HORT-49-PDF.pdf

Fertilizing the Vegetable Garden: https://www.pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/426/426-323/SPES-295.pdf

Home Vegetable Gardening: <https://ext.vt.edu/lawn-garden/home-vegetables.html>

Soil Sampling for the Home Gardener:

<https://digitalpubs.ext.vt.edu/vcedigitalpubs/1198948978743472/MobilePagedReplica.action?pm=2&folio=1#pg1>

Decorating with Fresh Greenery and How to KEEP It Fresh

By *Connie Sorrell*, November 21, 2022

Many of the evergreens in our gardens are excellent for decorating inside and outside the home. Many are also fragrant. Fir, magnolia, cedar, pine, boxwood, holly, cryptomeria, arborvitae and juniper are great examples.

With proper conditioning, most indoor arrangements should last approximately two weeks. Outside they can last longer, if kept out of the sun and away from heat.

HOW TO SELECT AND CONDITION GREENS



Photo by Pixabay CC0 1.0 Universal (CC0 1.0)

- Choose fresh, full, bright green plant material. Needles should be firmly attached. Woody branches should be pliable and smell fresh.
- Make sure your cutting tools are clean and sharp.
- Put cut ends in water immediately, then submerge entire cutting in water overnight or up to 24 hours.
- Leave ends in water and allow to dry until ready to use.
- Woody stems will take up more water if the ends are crushed
- Spray with anti-transpirant or anti-desiccant to seal in moisture. These are available online and at local garden centers.
- Do not soak eucalyptus. It dries to a beautiful, sage green color, but keep them “fresh cut” in a deep bucket in water for 24 hours before using.
- Do not spray juniper berries, cedar, or blue spruce so as not to damage the wax coating that gives these plants their distinctive color.
- Spray small male cones with lacquer or acrylic to prevent the release of pollen at room temperature!
- Check daily for freshness. If greenery becomes dry, either MIST VERY LIGHTLY, (or do not mist berries or dried flowers) replace or remove the dry portions.

<https://hgic.clemson.edu/.../holiday-decorating-with.../>

Native Alternatives to Invasive Periwinkle

By Pat Lust, November 28, 2022

Periwinkle, *Vinca minor*, is a popular trailing, broadleaf, evergreen plant native to Europe. It was brought to the US in the early 1700s as an ornamental ground cover and became very popular in Virginia gardens. A vigorous grower, it forms mass tangles, rooting at any of the intervals that touch the ground.

Unfortunately, periwinkle has escaped cultivation and is invading natural areas throughout the eastern U.S. The extensive, dense mats it forms along the forest floor are crowding out native plant species and causing harm to the native habitat.



CONTROL OF PERIWINKLE:

It can take a while to get rid of periwinkle in your garden. Periwinkle can be pulled by hand, but it is difficult to get all of it on the first pass. Be persistent and be sure to remove as many underground portions as possible. Use a rake to loosen roots and gather up all parts of the plants and destroy them.

Good alternative ground covers:

- Allegheny Spurge - *Pachysandra procumbens*. Semi-evergreen, shade-loving perennial. White or pink flowers
- Wild Pink - *Silene caroliniana*. Semi-evergreen, shade-loving perennial. Spring-blooming pink flowers
- Green and Gold - *Chrysogonum virginianum*. Semi-evergreen, shade-loving perennial. Showy plant with yellow flowers

Images. *Periwinkle* borrowed from North Carolina State University Extension. *Green and Gold* mass planted as a groundcover. Tom Potterfield (CC BY-NC-SA 2.0)

For more information about Periwinkle check out these sites:

“Invasive Plant Atlas of the US” - <https://www.invasiveplantatlas.org/subject.html?sub=3081>

“*Vinca minor*” - <https://plants.ces.ncsu.edu/plants/vinca-minor/>

How can I get my Christmas Cactus to bloom for the holidays?

By Kim Price, December 5, 2022

Schlumbergera truncata is also known as Thanksgiving cactus, holiday cactus or crab cactus.

Although it may be called a Christmas cactus, it does not require the same type of care as a desert cactus. Unlike most cacti, it prefers a rich organic potting mix and should not be allowed to dry out. Bright indirect light is best, as direct sunlight can cause the leaf segments to burn.

A healthy Christmas cactus can be encouraged to bloom for the holidays by offering it two magic ingredients; cooler temperatures and darkness. A good time to start giving your plant the signal is about 6-8 weeks before the holidays.

Keep the temperature around 60 degrees but avoid drafts. Flower production also requires a lot of “rest time.” Put your plant in a dark place for 16 hours a day and give it eight hours of bright indirect light during the day for at least 8 days. Circumstances and space permitting, darkness may be accomplished by placing the plant inside a plastic tote and covering it with a blanket to block out any light.

https://www.canr.msu.edu/.../the_secret_to_getting_a...

<https://extension.umn.edu/houseplants/holiday-cacti>



Bats as Pollinators

By Stacy Zimmerman, December 12, 2020

Perhaps December isn't typically associated with bats, however we should be grateful every day -- or, at least, every night -- for the crucial role they play. Misunderstood, feared, and often hated, bats are essential to the reproduction of hundreds of plant species around the world. Through pollination, seed dispersal, and pest control, bats are even responsible for the survival of many species of fruit, flowers, and agricultural crops.

Chiropterophily, the pollination of plants by bats, occurs at and after dusk. The nocturnal winged mammals seek out tasty nectar using echolocation, smell, and sight. Plants

that rely on bats for reproduction have evolved to attract them. Their flowers open at night and have specific shapes and scents, such as rotting fruit. In turn, bats have developed specialized mouth parts in this symbiotic evolution, making them the only creatures able to obtain the plants' nectar and the sole pollinators of many species. Bats can carry more pollen on their furry bodies over longer distances than other biotic pollinators, creating more diversity and larger populations in the plant species they pollinate.

Bats are also excellent farmers. After eating fruit, they carry seeds over great distances and areas and deposit them in a small package of fertilizer, or "guano," helping maintain biodiversity. Finally, by consuming many agricultural insect pests, bats save farmers billions of dollars per year and help prevent use of chemical pesticides.

Next time you enjoy tequila (agave), mango, bananas, cocoa, eucalyptus, or use balsa wood, THANK A BAT!

Bats should not be feared but revered!

Mark your calendars for next October 24-31 for Bat Week!

More information:

<https://www.batcon.org>

<https://www.fs.usda.gov/.../pollinators/animals/bats.shtml>

<https://blog.umd.edu/agr.../2020/07/23/bats-and-pollination/>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2766192/>

<https://www.nacdnet.org/.../celebrating-bats-unexpected.../>



Mistletoe

By Pat Lust, December 19, 2022

American Mistletoe, *Phoradendron leucarpum*, is native to most counties in Virginia. It is common in the coastal plains and less common in the mountains.

When the holiday season rolls around mistletoe is easy to spot in the treetops because it is still green while the trees have lost all their leaves. The history of mistletoe as an inspiration for kissing is a little murky, probably tied up in mythology and folklore. Many ancient cultures valued mistletoe for its medicinal qualities or considered it a sacred symbol of vitality because of its ability to bloom in winter.



Evergreen Leaves and Winter Fruit of American Mistletoe – Photo by Betsy Washington

Classified as a perennial subshrub, mistletoe is a hemiparasite. While it sinks its roots into the tree branch to get water and some nutrients, it is green and performs photosynthesis to create its own food for at least part of its life cycle. Its dependence on the tree may weaken the branch it inhabits, but usually without harming the tree. Mistletoe grows slowly.

With inconspicuous flowers in late fall, it is attractive to a wide variety of insects. The white berries are an important food source to many species of songbirds. And then, the seeds have a sticky substance that allows them to adhere to new branches as the birds drop them.

If you bring mistletoe inside your house as a holiday decoration, be sure to keep it away from children and pets. The leaves and berries are both somewhat toxic.

For more information about Mistletoe, check out these sources:

What is Mistletoe? NC Extension - <https://hoke.ces.ncsu.edu/2021/12/what-is-mistletoe/>

The Biology of Mistletoe - <https://www.smithsonianmag.com/.../biology-mistletoe.../>

Why Do We Kiss Under the Mistletoe - <https://www.history.com/.../why-do-we-kiss-under-the...>

Used Christmas Trees for Wildlife or for Your Garden

By Pat Lust, December 26, 2022

After you remove the tinsel and ornaments, you can redecorate your tree for the birds. Leave the strings of stale popcorn on it when you take it outside. Any uneaten fruit that is a bit past its prime can replace the ornaments. Get creative! Make special birdie ornaments out of oranges, peanut butter and so on.

Temporarily plant the tree outdoors and brace so it won't fall over, or just lay it in a corner of the garden. Wild creatures have ways of surviving the cold of winter, but a protected spot, like your used tree, where they can nestle in for a little extra warmth is a welcome find.

Or, reassign your Christmas tree to your garden:

- Use the needles for mulch. Pine needles are good for holding moisture and over time they break down and add nutrients to the soil.
- Chip the entire tree for mulch. This is especially useful around trees and shrubs.
- Separate the limbs and use them to build a Hügelkultur bed. This tree layer will hold moisture as the bed evolves into a rich garden spot
- Put the tree in your pond to provide habitat for fish. They can congregate with protection from predators.
- Insulate your perennials with the boughs. Chop the limbs into small pieces to provide a winter coat for your sleeping perennials.

If you burn your used Christmas tree, be sure to save the ashes. They can add lime, potassium and other important nutrients to your compost pile and garden.

Resources

What to do with an old Christmas Tree - <https://www.thisoldhouse.com/.../10-uses-for-your-old...>

8 Uses for Your Tree After Christmas - <https://arbordayblog.org/.../8-uses-for-your-tree-after.../>



Photo by Bob Norton