



# SOW YOU KNOW 2025

Goochland-Powhatan Master Gardener Association  
Weekly Facebook Tips



[www.gpmga.org](http://www.gpmga.org)

2025 was the *FIFTH* 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:  
[gpmastergardener@gmail.com](mailto:gpmastergardener@gmail.com)

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# Winter Mulching

by Katrina McIntosh, Extension Master Gardener

1/6/2025

It's January. The holidays are past, decorations are put away, a new year is here. Some of us gardeners may have cabin fever and want to get outside. The good news: winter is a great time to mulch your garden beds.

Winter mulching is a simple way to protect plants throughout the cold season. Winter typically brings wide temperature fluctuations in central Virginia. Repeated freezing and thawing of the ground can cause susceptible plants to heave out of the ground, leaving them exposed to severe damage. Bark split on trees is also caused by temperature swings. Mulch will not warm or cool the plant's roots, but it will help to maintain steady soil temperatures.

Mulch will assist in suppressing weeds like chickweed and henbit that germinate in the cooler months, reducing the amount of weeding needed come springtime.

Mulching will also greatly benefit the soil. It helps prevent erosion by protecting soil from harsh wind and precipitation. Over time, organic mulches such as wood chips, shredded bark, pine needles & straw will break down and add organic matter. This increased organic matter will improve the soil's moisture retention, increase microorganisms and improve nutrient supply.

The best time to mulch is after a hard frost because it will help stabilize the soil temperatures at near freezing. Mulch 2-4 inches deep. Pull mulch away from tree trunks to discourage damage from diseases, insects, and small animals.

Applying a layer of mulch this winter will beautify your garden, protect your plants and feed your soil.

And it may just give you an extra boost of vitamin D to beat the winter blues!

## Resources

<https://wayne.ces.ncsu.edu/2020/11/winter-gardening-chores/>

<https://www.purdue.edu/hla/sites/yardandgarden/mulch-for-winter-protection-2/>



*Photo by Katrina McIntosh*

# Arborist Wood Chips

by Katrina McIntosh, Extension Master Gardener

1/13/2025



*Photo by Katrina McIntosh*

I use a lot of arborist wood chips! They are one of the best mulches for trees and shrubs. They have been very effective in establishing new habitats for native plants. They cover my vegetable garden paths. Wood chips have greatly helped improve soils everywhere I've used them.

So what are arborist wood chips? Unlike commercial mulches, which are uniform in size and material, wood chips include bark, wood, and leaves or needles from freshly cut or pruned trees. Wood chips are slow decomposers, breaking down to compost and adding nutrients over long periods. They resist compaction and retain moisture better than commercial bark mulches. Wood chips are a great help in controlling weeds. At a depth of 4-6", they suppress light and inhibit seed germination by robbing nitrogen between the mulch and soil layers. Research has shown wood chips applied to the surface will not drain nitrogen at the plant's root level where nutrients are taken up.

Another benefit is that most wood chips are free! If you see a neighbor having branches trimmed or a tree cut down, stop and ask the arborist if they can "drop" the wood chips in your yard. Nine times out of ten, they will be glad to deliver them and save a trip, and you will help keep plant materials out of landfills.

## **Resources**

Washington State University Extension:

<https://pubs.extension.wsu.edu/Product/ProductDetails?productId=4265>

# Frost Flowers: A Winter Wonder

by Laura Lemmon, Extension Master Gardener

1/20/2025

While few flowers are visible when nighttime temperatures drop below freezing, a different type of "flower" can be observed on early morning walks. This phenomenon, known as a "frost flower" or "ice flower," occurs when moisture in certain herbaceous plants freezes and causes the stems to split vertically. As the stem splits, the exposed sap is pushed out in ribbons, which then freeze into ice crystals. Frost flowers are most likely to form when the air temperatures are very cold, while the soil remains unfrozen.

Three of our native plants have demonstrated the ability to form frost flowers when environmental conditions are met.

*Verbesina alternifolia* is commonly known as Wingstem. This tall plant's bright yellow summer flowers may be seen in forests, low meadows, and clearings.

*Cunila origanoides*, is commonly known as American Dittany or Wild Oregano. Dittany likes well-drained soil and has purple blooms from late summer into fall.

*Verbesina virginica*, is commonly known as White Crownbeard or Frostweed. This tall, dappled, shade-loving plant blooms with white flowers in the summer months.

All three species are deer tolerant and support insect and pollinator populations with clusters of colorful flowers. They may also provide a bonus in cold weather if their stems remain after blooming with white ribbons of ice.



## Resources

University of Missouri - Integrated Pest Management:

<https://ipm.missouri.edu/meg/2018/10/iceFlowers/>

Illinois Extension - College of Agricultural, Consumer & Environmental Sciences:

<https://extension.illinois.edu/blogs/naturalist-news/2021-01-02-natures-current-event-frost-flowers>

## Holiday Cacti After-Care

by Karen Woodring, Extension Master Gardener

1/27/2025

Some of my favorite plants are my holiday cacti. I have 'Thanksgiving Cactus' *Schlumbergera truncata* and 'Christmas Cactus' *Schlumbergera bridgesii*. A friend inherited some cacti from her grandmother many decades ago and insists they are ALL Christmas cacti. I tell her the 'point' is to get a 'round' to it. Thanksgiving cacti have serrated (pointy) edges, while Christmas cacti have rounded edges. Now, Easter cacti are entirely different, but I've had little luck with them.

After the Cacti have bloomed out, move them to a cool location with indirect light and let them dry out some between light, weekly watering. I no longer move mine outdoors to a shady spot in the summertime since it is impossible to control the moisture they receive (and they pick up unwanted pests). You can prune cacti after blooming if you want a fuller plant. Share the pruned segments with friends and neighbors for the gift that keeps on giving! Holiday cacti perform better for me when kept slightly root-bound.



In October, cover the cacti with a black fabric tablecloth every night (7p-7a) for about 6-8 weeks. When you see blooms being set, move the cactus back out to a sunny location in your home, but keep them away from heater vents and fireplaces. Temperature extremes will cause buds to drop. Lightly apply fertilizer and keep them slightly moist. If you've been diligent in their holiday after-care, you may be rewarded with many years of beautiful blooms.

### Resources

University of Florida Extension:

<https://nwdistrict.ifas.ufl.edu/hort/2017/11/13/name-that-holiday-cactus/>

University of Florida Extension:

<https://blogs.ifas.ufl.edu/suwanneeco/2017/12/11/christmas-cactus-brighten-the-holidays/>

Oklahoma State Extension:

<https://extension.okstate.edu/announcements/horticulture-tips/hort-tips-december-2024.html>

## 2025 Focus Theme: Home Food Production

by Katrina McIntosh, Extension Master Gardener

2/3/2025

In 2025, the Virginia Extension Master Gardener (EMG) focused theme is Home Food Production. “This initiative comes in response to the significant community challenges faced by Southwest Virginia in the wake of Hurricane Helene”, according to the EMG office.

Food resilience is the ability of a food supply system to adapt and recover from changes and disruptions. With tragedies occurring recently from hurricanes, wildfires, flooding, and other weather-related events, food resilience has become a critical and timely theme. As communities continue to recover, master gardener volunteers hope to help make a difference in promoting sustainable and resilient food production at household and local levels.

Our goal as Goochland-Powhatan Master Gardener Association (GPMGA) volunteers is to take scientific, research-based information into our communities to help improve quality of life. Our mission is “Sharing Knowledge. Empowering Communities”. Throughout the year, I look for opportunities to learn skills that will help you grow food and contribute to local food resiliency. GPMGA has a wide variety of available resources, and we partner with organizations to offer educational events all year long. Stay tuned to our [Facebook page](#), visit our [website](#) for resources, and subscribe to our monthly newsletter for the latest information on upcoming events.

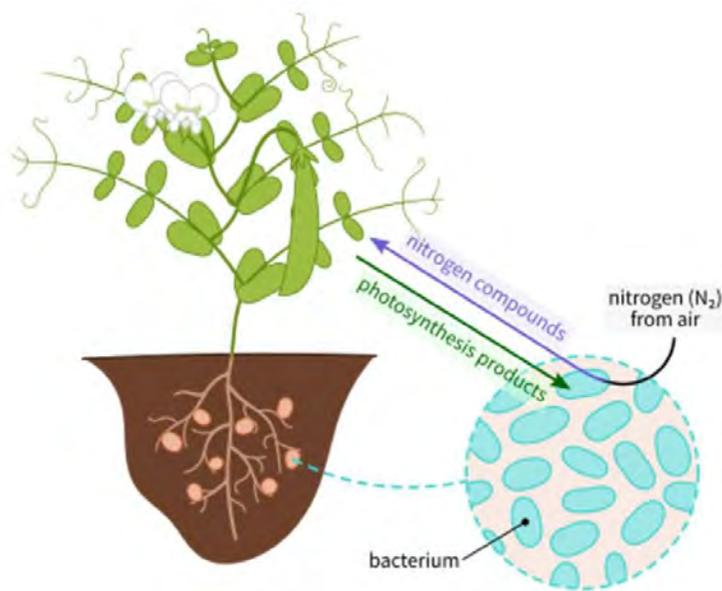


# Nitrogen and Nitrogen Fixation- What Exactly Is It?

by Audrey Hirsch, Extension Master Gardener

2/10/2025

Most gardeners have heard that legumes (clover, beans, and peas) benefit the soil by fixing nitrogen. But what does “fixing” mean, and how does it happen? Nitrogen is not just crucial but essential for plant development. It is a key element in many plant compounds, from chlorophyll (utilized during photosynthesis) to amino acids (building blocks of most plant components). Insufficient nitrogen will lead to stunted growth and yellowing leaves. Understanding the importance of nitrogen is one key to successful gardening.



Nitrogen fixation is a complex process primarily carried out by bacteria and microorganisms in the soil. These tiny organisms convert atmospheric nitrogen into a form (ammonia or nitrites) that plants can use. Legumes, however, stand out as they form root nodules with bacteria inside, storing nitrogen within the nodule.

Legumes play a crucial role in enriching the soil. The nitrogen stored in the root nodules of these plants moves up the plant to become part of the foliage. Nitrogen is transferred from the foliage to the seed pods when the plant produces seed pods. Little nitrogen is left in the root nodules once the plant has completed its growth cycle. If legumes die before seeds are formed, the root nodules release the remaining nitrogen back into the soil, making it available for other plants. This process enriches the soil and empowers gardeners to foster healthy crop growth.

## References:

Legumes and Nitrogen Fixation- <https://extension.wvu.edu/lawn-gardening-pests/news/2021/11/01/legumes-nitrogen-fixation>

Soil Health and Cover Crops- <https://ext.vt.edu/agriculture/soil-health.html>

Nitrogen-fixation: healthy soil, happy plants, full bellies- <https://www.hudsonalpha.org/nitrogen-fixation-healthy-soil-happy-plants-full-bellies/>

Joe Gardener Podcast # 215-Roots Demystified: The Amazing Unseen Things Roots Do July 1, 2021- <https://joegardener.com/podcast/roots-demystified/>

# Grow Your Indoor Lettuce

by Karen Woodwing, *Extension Master Gardener*

2/17/2025

Lettuce is a staple in many diets, commonly used in salads, sandwiches, and wraps. Recently, there have been several recalls of lettuce due to foodborne illnesses such as E.coli, Listeria, and Salmonella. If you're considering starting a small hydroponic garden, I recommend growing "Outredgeous Red Romaine" (*Lactuca sativa*), which is an Open Source Seed Initiative (OSSI) pledged variety. This type of lettuce is easy to grow, matures quickly, has a mild flavor, and presents beautifully on a plate. Notably, *Lactuca sativa* was the first vegetable grown and consumed on the International Space Station

Growing lettuce hydroponically allows you to control environmental factors such as temperature, nutrients, and water pH. Since soil is not required for lettuce growth, this method helps eliminate the risk of soil-borne contamination. It's important to note that bacteria can be introduced after the lettuce is harvested. To minimize this risk, cut the lettuce just before you plan to use it, and wash it thoroughly. It is best to use the lettuce immediately and limit its storage in the refrigerator.

Do you need special equipment to grow lettuce indoors hydroponically? You do not. Publication HS1422 (see below) discusses different methods to start your indoor lettuce patch.



Additionally, growing lettuce indoors means you won't have to worry about wildlife eating your salad before you get to enjoy it!

## References:

- <https://aces.illinois.edu/.../refrigerate-lettuce-reduce...>
- <https://edis.ifas.ufl.edu/publication/HS1422>
- <https://www.fda.gov/.../investigation-summary-factors...>
- [https://osseeds.org/ossi\\_variety/outredgeous/](https://osseeds.org/ossi_variety/outredgeous/)

# It's Not Too Late to Winter Sow!

by Laura Lemmon, Extension Master Gardener

2/24/2025

By tradition, Winter Sowing begins on December 21, the Winter Solstice. The good news is that the Winter Sowing of seeds may start anytime during "sweater weather" when overnight temperatures are below 50 degrees.

Winter Sowing is when seeds are planted in a milk jug or other container and germinated outdoors during winter. As seedlings develop, the containers work as mini greenhouses. This results in hardier seedlings, allowing the planter more control over where seeds are planted and germinated than planting seeds directly in the ground. This method also protects the seeds and seedlings from birds and animals or severe weather.

When selecting seeds for late Winter Sowing, look for a description on the seed packages like "cold tolerant," "cool season," "hardy annual," "perennial," "sow in early spring," or "self-sows." Seeds that require cold stratification (periods of cold break down their seed coat and encourage germination) are best sowed earlier in the winter. Tender annuals are not good candidates for Winter Sowing, but they do well sown in containers early in the spring. Many vegetables do well when winter sown. My best success is with native plants and late Winter Sowing of annuals, like nasturtiums and marigolds. Whatever you plant, one of the most appealing aspects of Winter Sowing is getting outside and doing a little planting during the winter months.



## References:

<https://fairfaxgardening.org/winter-sowing/>  
<https://piedmontmastergardeners.org/.../winter-sowing.../>

# Beneficial Bacteria

by Judith Kohnen, Extension Master Gardener

3/3/2025

Healthy plants depend on good soil, and billions of microbes have everything to do with providing our plants with all the things they need for survival. A large portion of those microbes are beneficial bacteria. They live within the plants, on the plants, and beneath the plants providing many essential tasks in the soil surrounding the plant's root system.

Though invisible to the naked eye, their presence and activities in the soil are fundamental to the ecosystem. They not only sustain plant growth but are also majorly involved in other much needed activities that support both plant and soil. Here are some of the ways they accomplish this:

- 1) Decomposition – they break down organic matter (dead plants, animal remains, and compounds like sugar, proteins, & fat that contribute to soil fertility.
- 2) Detoxification – they support *biomediation* by breaking down toxins & pollutants, heavy metals, oil, gas, pesticides, even Roundup and other contaminants in the environment.
- 3) Nutrient Cycling - decomposition releases essential nutrients like nitrogen, phosphorus, potassium and sulfur back into the soil so plants can absorb what they need.
- 4) Promote Plant Growth – they produce growth hormones to help the plants grow; fix nitrogen from the atmosphere (nitrogen cycle participants); and increase nutrient availability
- 5) Disease Suppression – they protect plants from disease, outcompeting harmful pathogens for resources, as well as producing natural antibiotics for them.
- 6) Improve Soil Structure – they produce sticky substances that bind soil particles together, improving soil aeration, water retention, and overall soil health.



Photo by Judith Kohnen

Resources:

<https://researchoutreach.org/blog/plant-life-partners-beneficial-bacteria/>

<https://ohioline.osu.edu/factsheet/anr-36>

# Rose Rosette Disease

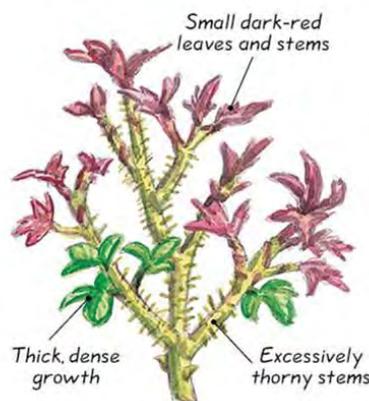
by Gary Roemmich, Extension Master Gardener

3/10/2025

With the warm weather, gardeners' thoughts turn to their gardens. For many gardens, roses are a centerpiece. Unfortunately, Rose Rosette Disease (RRD) has devastated many gardens in the past decade. Rose rosette disease (RRD) is caused by the rose rosette virus (RRV), a negative-sense RNA virus of the genus *Emaravirus*. The primary vector for this virus is the eriophyid mite *Phyllocoptes fructiphilus*. The disease can spread through grafting. The invasive multiflora rose (*Rosa multiflora*) is highly susceptible to RRD and is key in spreading the disease.

## Symptoms of Rose Rosette Disease

Symptoms of RRD include elongated and thickened shoots, red or yellow leaf mottling, leaf distortion, excessive thorns, and a characteristic "witches' broom" appearance where multiple shoots emerge from a single point. Infected plants may exhibit flower distortion, reduce winter hardiness, and increase susceptibility to other diseases. Symptoms can resemble herbicide damage but typically include excessive thorniness and persistent red pigmentation.



Rose with rose rosette disease



Healthy rose

## Treatment of Rose Rosette Disease

There is no cure for rose rosette disease. The most effective management strategy is to remove and dispose of infected plants, including their roots, to prevent further spread. Pruning can help reduce mite populations, and using horticultural oils may control remaining mites. Preventative measures include inspecting new plants for symptoms and maintaining good garden hygiene to minimize mite movement.

## References:

- <https://extension.okstate.edu/fact-sheets/rose-rosette-disease.html>
- <https://www.pubs.ext.vt.edu/450/450-620/450-620.html>
- <https://www.gardendesign.com/how-to/rose-rosette-disease.html>

# The Benefits of Dragonflies in the Garden

by Pam Talbott, Extension Master Gardener

3/17/2025

Dragonflies and Damselflies are mystical fliers and crucial ecosystem components. They symbolize luck, growth, and spiritual awakening. Virginia hosts 144 species of dragonflies and 55 species of damselflies. Distinguishing between the two species is straightforward. Dragonflies have large eyes that curve around to the sides, occupying most of their head, while damselflies are smaller, with space between their eyes. When they land, dragonflies extend their wings straight, whereas damselflies fold theirs up. These insects help control the mosquitoes and gnats that are particularly bothersome to gardeners. Their presence in a garden indicates a healthy, well-balanced ecosystem.

Attracting them requires a freshwater source to lay their eggs and a calm area for the nymphs to mature. They also need a spot for a cool drink. Tall plants or even a few small bamboo sticks or branches near your water feature will provide perches while they hunt for food or rest, often returning to the same perch after short flights. Rocks offer a place to absorb heat on a cool morning or dry out after dew collects on their wings. They may take a season or two to make your garden their home.

Habitat loss and declining water quality have depleted the environments of dragonflies and damselflies. However, we have the power to change that. By enhancing their habitat, we can enrich not only their lives but our own as well. We share this responsibility, and it can bring us closer to the natural world around us.

## References:

Van Dokkum, Pieter (2015). *Dragonflies*. Yale University Press.



Adobe free-stock photo

# Chaos Gardening

by Karen Woodring, Extension Master Gardener

3/24/2025

“In all chaos there is a cosmos, in all disorder a secret order.” –Carl Jung.

What IS Chao Gardening? It involves mixing seeds and scattering them randomly without regard to spacing or compatibility. I was recently introduced to Chaos Gardening, and I was instantly intrigued.

At the end of each growing season, I have packs of aging seeds and/or not a particular favorite. I usually give them away or let them sit in my Seedbox for another year. This year, they all get tossed into a spot next to the woods where they can grow (or not) without my intervention. If the deer, insects, rabbits, or squirrels forage, that’s OK too.

Chaos Gardening is not for everyone. I like neat and orderly plant beds. This old, terraced bed (pictured) is a perfect example of plant neglect. If I have a few extra Begonias or Petunias, I toss them in. Annual Dahlia seed and Milkweed, too. Adding focal interest (yard art, wind chimes, or garden flags) helps alleviate the stress of not tending to weeds or germination failures.

My 2025 Garden Plan has this terraced bed rebuilt with fresh compost and a new walking path. Chaos is NOT part of that plan, so I will enjoy the bed at the edge of the woods next to my two beloved Jack Russell’s resting spot. It will always be a surprise what blooms. And yes, there is always Cosmos in my Chaos Garden!



Photo by Karen Woodring

## References:

<https://blogs.ifas.ufl.edu/browardco/2020/06/15/a-gentle-plea-for-chaos-in-the-garden/>

## Pet Your Plants, The ‘Thigmo Response’

by Karen Woodring, Extension Master Gardener

3/31/2025

Ever heard of Thigmotropism? This term refers to the touch response in plants.

Many of us start seedlings indoors, providing a desk fan, a good source of light, water, and food. But have you ever considered petting your plants? Horizontal airflow fans (HAFs) help create a uniform greenhouse environment by mixing the air mass and, in part, regulating temperatures depending on their placement. Air circulation can also help deter the growth of fungi. A small desktop fan set up next to a rack of plants can serve the purpose of seedling rotation, and you can gently touch (pet) your plants.

There are ongoing studies on producing more substantial and healthier food from plant sources. This Thigmo Response may help plants survive wind, animals, or other mechanical stimulation in the environment and increase crop yield. Tomatoes grow towards the touch.



Photo by Karen Woodring

I doubt that gently brushing my hand over the top of my tomato plants today in my office window will help them survive being trampled by my hound in the garden this summer (that’s what good fences are made for). Still, I feel that both the tomato plant and I enjoy our daily petting. The hound does get jealous, however.

### References:

<https://www.canr.msu.edu/uploads/resources/pdfs/haffans.pdf>

<https://extension.usu.edu/yardandgarden/research/starting-vegetable-seeds-indoors-seeding-culture-and-transplanting>

<https://garden.org/learn/regional/view/1580/>

# Ground Cherry

*by Kelly Moore, Extension Master Gardener*

April 7, 2025

The Ground Cherry goes by many names. It is also known as Cape Gooseberry, Husk Tomato, and Chinese Lantern. They belong to the nightshade family and are related to tomatoes and tomatillos. What's more, Ground Cherry plants are not just fascinating to watch develop and delicious to eat alone or made into jam or salsa, but they are also incredibly easy to grow.

Ground Cherries have a rich history of cultivation that spans hundreds of years in their native South and Central America. Cape of Good Hope settlers later cultivated them, while providing them with a common name. This long history of cultivation not only adds to their allure but also connects you to a rich gardening tradition that you can be a part of by considering them for your garden.

The plants reseed easily and grow quickly to around three feet tall, spreading and branching out. Their fruit grows within a papery husk called a calyx and falls to the ground when ripe. As the fruit ripens, it transforms from green to a vibrant yellow-orange, resembling a tomato, hence the nickname 'Husk Tomato.' But don't let the name fool you, the mature Ground Cherry fruit is a culinary delight with a unique, sweet-tart flavor that's perfect for eating fresh, cooking into sweet jam, or adding a zesty kick to your salsa. The unique flavor, structure, and prolific growth of Ground Cherries make them a compelling choice for your garden.



## References:

<https://plants.ces.ncsu.edu/plants/physalis/>

# Did You Know Roses Have Fruit?

by Shere Macumber, Extension Master Gardener

4/14/2025

When you think of roses, you likely picture their vibrant blooms, delicate petals, and enchanting fragrances. But here's a surprise, did you know that roses also produce fruit? Known as rose hips, these small, often overlooked fruits are as fascinating as the flowers themselves.

Rose hips develop after the rose's blooms fade and are typically found on species roses or wild varieties rather than heavily cultivated hybrids. They are small, round, or oval, ranging in color from bright red to orange and sometimes even purple or black. Moreover, these rose hips are not just for show; they pack a nutritional punch, with a high vitamin C content, sometimes 50% more than oranges!

Rose hips have been used in a variety of ways, from teas, jams, jellies, and syrups to herbal remedies. They're believed to support immune health, reduce inflammation, and promote healthy skin. The versatility of rose hips doesn't end there; rosehip oil, extracted from their seeds, is a popular skincare product known for its moisturizing and anti-aging properties.

For gardeners, rose hips can add seasonal interest to your garden, providing a pop of color in the fall and winter. They also attract birds and wildlife, making them valuable to an eco-friendly garden.

Next time you admire a rose bush, look closer at its bloom. You'll discover that these beloved flowers offer more than beauty; they provide fruit full of hidden treasures!

## Reference:

[yardandgarden.extension.iastate.edu](http://yardandgarden.extension.iastate.edu)



Photo by Shere Macumber

# Phytoremediation – Part I: What Is Phytoremediation

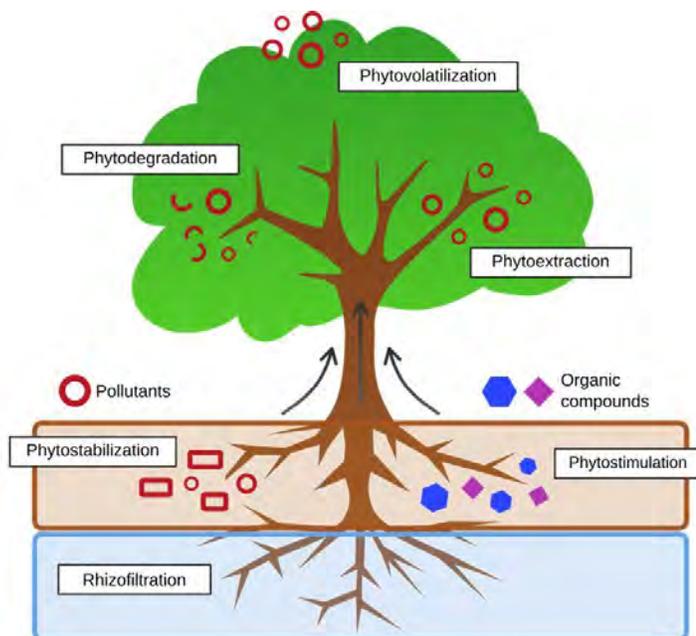
by Laura Lemmon, Extension Master Gardener

4/21/2025

Phytoremediation is a process that uses plants and associated soil microbes to clean up polluted water, soil, and air. The word comes from the Greek word phyto, meaning "plant", and the Latin word remedium, meaning "restoring balance."

Phytoremediation is widely accepted as a cost-effective environmental restoration technology.

Plants can help clean up many contaminants, including metals, pesticides, explosives, and oil. Recently, researchers in China have unveiled the potential of phytoremediation to clean up microplastic pollution.



Phytoremediation is used in both rural and urban environments. Plants work best where contaminant levels are low because high concentrations may limit plant growth, extending the cleanup time. Established plants may also help prevent wind, rain, and groundwater flow from carrying contaminants from the cleanup site to surrounding areas or depositing them deeper underground.

How does this work? All plants need some heavy metals in small amounts. A plant species capable of taking up more heavy metals than other plants is called a hyperaccumulator. Plants commonly used for phytoremediation include grasses, cattails, sunflowers, hemp, willows, or poplar trees, and often, plants native to the area to be remediated. Cattail, hemp, and sunflowers will be addressed in future Sow You Know articles, along with information on what happens to plants after they do their phytoremediation work.

Contaminants derived from human activities can adversely affect wildlife and impact human health. Phytoremediation is one tool to help bring our environment back into balance.

## References:

Citizen's Guide to Phytoremediation - [https://19january2017snapshot.epa.gov/sites/production/files/2015-04/documents/a\\_citizens\\_guide\\_to\\_phytoremediation.pdf](https://19january2017snapshot.epa.gov/sites/production/files/2015-04/documents/a_citizens_guide_to_phytoremediation.pdf)

Green warriors: plants on the frontline against microplastics - <https://phys.org/news/2024-08-green-warriors-frontline-microplastics.html>

Cleaning the Soil with Flowers - <https://www.thoughtco.com/phytoremediation-cleaning-the-soil-with-flowers-419222>

## Phytoremediation Part II

### Cattails and Hemp

by Pat Lust, Extension Master Gardener

4/28/2025

Before European colonization, Cattails, *Typha latifolia*, were a valuable food crop in most of the US. They can produce more starch per acre than potatoes or rice; as perennials, they require little cultivation. Usually found in marshlands and wet meadows, cattails provide food and protection for many animals, insects, and fish.

Cattails are one of the most noted plants for phytoremediation, since they can pull heavy metals and other water-soluble metals from the soil and store them in their leaves. They can also absorb herbicides, pharmaceuticals from contaminated soil, and phosphorus, nitrogen, sodium, and chloride from wastewater. In addition, Cattail roots can be very effective in stabilizing soil and preventing erosion.

Hemp, *Cannabis sativa* (not a VA native), produces a long, powerful fiber (called bast) that was used for making rope, sails, and other canvas, and at one time, farmers were required to grow a certain amount. Then, since hemp is the same species as marijuana, just with less THC, it fell victim to the Marijuana Tax Act of 1937 and disappeared from US agriculture.

Various studies have shown that hemp can not only remove toxins from the soil and store them in its leaves but can also transform some toxins into harmless substances. Hemp will grow most anywhere and has very deep roots. It was used to remove radioactive strontium after the nuclear disaster at Chernobyl in 1986. Research on the potential for Hemp to remove PFAS from the soil is ongoing.



North Carolina State University Plant Toolbox    University of Wisconsin-Madison CALS News

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What do Hemp and Cattails Have in Common? –

<https://www.straughanenvironmental.com/news-insights/what-do-cattails-and-hemp-have-in-common-learn-about-the-impressive-benefits-of-phytoremediation/>

How Hemp Plants Can Help Clean Up Forever Chemicals –

<https://www.fastcompany.com/91208763/how-hemp-plants-can-help-clean-up-forever-chemicals>

# Phytoremediation III: Benefits of Sunflowers

by Laura Lemmon, Extension Master Gardener

5/5/2025

Sunflowers are a source of bird seeds, food for pollinators, or a backdrop for pictures of friends and family. Here's another reason to plant sunflowers: The common annual sunflower, *Helianthus annuus*, can be a powerhouse for phytoremediation, which is using plants to remove contaminants from soil.

Sunflowers have a robust root system that efficiently absorbs heavy metals and other contaminants from the soil. They can accumulate high concentrations of these metals in their tissues, particularly in the roots, stems, and leaves. Some sunflower cultivars are known as "hyperaccumulators," meaning they can store exceptionally high amounts of contaminants in their biomass. Sunflowers effectively remove arsenic and heavy metals, including cadmium, lead, zinc, and nickel. Sunflowers were used after the 1986 Chernobyl nuclear disaster in Ukraine to remove cesium and strontium (radioactive elements) from the soil.

When used for phytoremediation, the resulting sunflower seeds and plants (biomass) must be appropriately disposed of, not composted. The contaminated vegetation is not suitable as a food source for humans or animals unless the soil is cleared by testing.

Sunflowers offer a promising, economical, and environmentally friendly approach to cleaning up contaminated soil by utilizing their natural ability to absorb and accumulate contaminants.

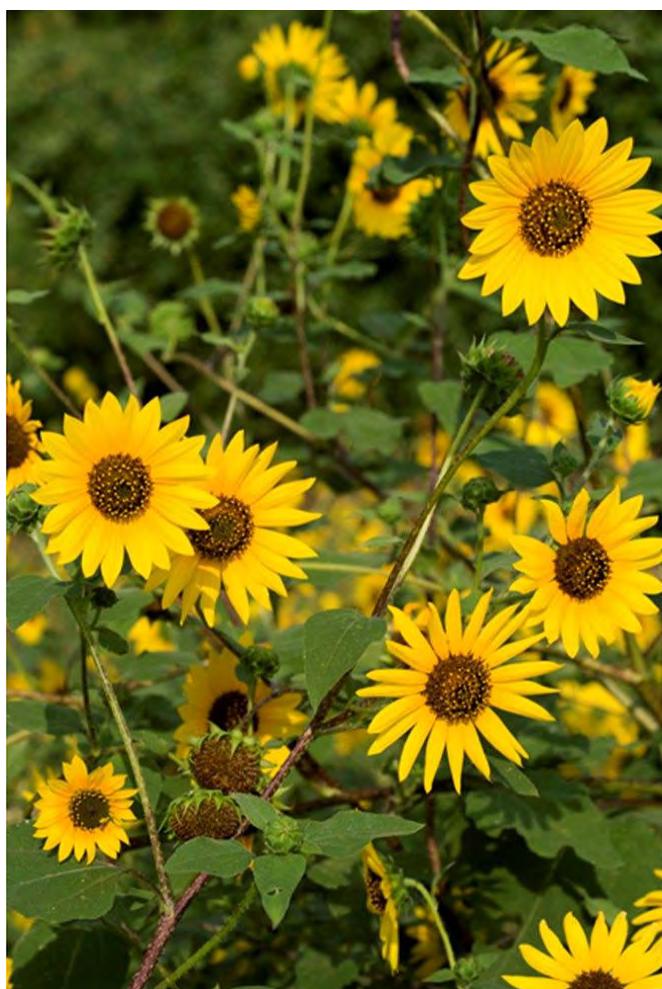


Photo by Laura Lemmon

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5 Things About Sunflowers -

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Sunflowers as a Natural Solution to Detoxify Soil and Air -

<https://womensearthalliance.org/in-the-news/seeds-of-carver/>

## Phytoremediation IV: PR plants after they absorb the toxins

by Pat Lust, Extension Master Gardener

5/12/2025

All parts of the Cattail plant (Part II of this series) are edible for humans, but when you choose it for your menu, be sure to harvest plants from an uncontaminated area. Through this series of articles, we've discussed plants that humans usually do not eat. The reason is this: Phytoremediation occurs in contaminated soil, and one should never plant food crops in contaminated soil.

So how does this work? Do phytoremediation plants suck up the toxins, die and decompose and the cycle repeats?

Here are some proactive means of disposing of the contaminated plants:



Poplar trees at a phytoremediation site – EPA

*Photo by Pat Lust*

- **Dumping in a landfill** – This is probably not the best solution.
- **Burning to destroy** – Specially designed incinerators can function in a manner that contains harmful elements and does not release them into the air.
- **Burning to create energy** – Harvest and burn the contaminated plants biomass to produce energy. This practice is more common in Europe
- **Phytomining** – This is a process by which the heavy metals are extracted from the burned plants' ashes and recycled.
- **Biofuel** – Hemp, with its especially high biomass, is a potential candidate for biodiesel or ethanol alternatives to fossil fuel.

This series of articles has discussed plants that are particularly good at phytoremediation. However, any plant grown in contaminated soil or near wastewater will exhibit some phytoremediation properties and should not be consumed by animals or humans or used as mulch.

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Where do chemical-sucking plants go to die?

<https://grist.org/.../ask-umbra-where-do-chemical.../>

Industrial Hemp's Energy Potential – Biofuel –

<https://hempgazette.com/industrial-hemp/biofuel-hemp-energy/>

## 2025 Winter Sowing Results

by Karen Woodring, Extension Master Gardener

5/19/2025

I recently requested feedback on winter sowing. I appreciate GPMGA members Rebecca Crow and Laura Lemmon for sharing this information with us!

**Laura:** “I winter sow native plants for two reasons. First, their seeds respond well to this method. Second, I don't fret over identifying the seedlings. I've pulled up many direct-sown seedlings over the years!

This year's successes: Spotted Bee Balm (*Monarda punctata*), Frostweed (*Verbesina virginica*), Common Milkweed (*Asclepias syriaca*), Golden Alexander (*Zizia aurea*), Maryland Golden-Aster (*Chrysopsis mariana*), and Blue False Indigo (*Baptista australis*).

I also nurtured a jug of Smooth Coneflower (*Echinacea laevigata*) seedlings. This Virginia native species is considered threatened in the United States. I have high hopes for these babies.”

**Rebecca:** “I did a winter sowing experiment with Foxglove seeds. I sprinkled some in prepared seed trays that came with clear plastic covers. The covers have some holes for ventilation and watering. Then I sowed some seeds directly on top of the ground next to the original plants. I covered this area with a seed tray's clear plastic cover and put a heavy rock on top. This was done to prevent the seeds from being eventually smothered by leaves.

The seeds in the trays started growing, but then all died when we had those two snows. The seeds on the ground, covered, are growing nicely!”

**Karen:** “I had great success with jugs of Penstemon, Calendula, Tall Thimbleweed (*Anemone virginiana*), and Snapdragons. Spotted Beebalm, Little Bluestem, Obedient Plant, and Gaura decided not to participate and germinate.”



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# Using Herbs for Medicine

by Judith Kohnen, Extension Master Gardener

5/26/2025

Herbs have been used for centuries to nourish, heal, and support the body. The same culinary herbs that flavor our meals — like thyme, basil, sage, and rosemary — also offer powerful medicinal benefits. Whether you're soothing a sore throat or calming frazzled nerves, many remedies begin right in your garden or kitchen window.

Herbal medicine is gentle and supportive. Unlike pharmaceuticals, herbs often work in harmony with the body, encouraging balance rather than masking symptoms. For example, lemon balm and chamomile are soothing to both the stomach and the nervous system. Thyme clears the lungs and fights infection, while calendula and yarrow are staples for wound healing and skin care. Most herbs serve in multiple ways. For instance, rosemary is an antioxidant and an anti-inflammatory, improves circulation and memory, eases headaches and migraines, and aids digestion.

There are many simple ways to use herbs at home:

- Infusions (herbal teas) are great for calming the nerves or aiding digestion.
- Tinctures are alcohol-based extracts that concentrate the herb's medicinal properties.
- Salves and infused oils are applied to the skin for cuts, rashes, and dry skin.
- Steams and poultices help with colds, congestion, and surface wounds.

You don't need to grow a large garden — herbs like Tulsi (holy basil), lavender, thyme, and hibiscus thrive in containers. Start small, learn what works for your body, and use herbs regularly to build resilience and wellness. Herbal medicine isn't about replacing doctors—it's about building relationships with plants and understanding your body's needs.

Resources:

<https://scienceandartofherbalism.com>

<https://pmc.ncbi.nlm.nih.gov/articles/PMC7491497>



# Too Much Mint?

by Laura Lemmon, Extension Master Gardener

6/2/2025

Mints, members of the Mentha plant family, gain peak growth during the warm months. This herb can be used in a variety of ways, beyond simply adding mint sprigs to cold drinks.

Warm tea made with peppermint, *Mentha piperita*, is known for its stomach-soothing properties. Fresh mint may be used in sauces or dips. Blend mint into pesto, chutney, or tzatziki for a fresh twist on classic flavors.

Incorporate chopped mint leaves into rubs or marinades. Consider mint as a garnish for grilled chicken, lamb, or fish. Add chopped or torn fresh mint leaves to a watermelon or fruit salad for a refreshing flavor.

Leftover or excess mint may also be preserved through drying or freezing. Mint may be dried in a dehydrator or oven for long-term storage. To freeze, chop the mint leaves and place them in ice cube trays filled with water for later use in drinks or sauces. Alternatively, you can freeze the leaves directly in a freezer bag, labeling it for easy identification.

Making and canning mint jelly is another way to add a touch of mint to meals in the cold months when mint is resting, hopefully, in a pot so it won't take over your garden!



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# The Art of Rooting in Water

by Sherè Macumber, Extension Master Gardener

6/9/2025

Propagating plants through water rooting is a simple, satisfying, and cost-effective method for growing new greenery. This method involves placing plant cuttings in water to encourage root development before transferring them to soil. It's an excellent technique for both beginners and experienced gardeners, offering a close-up view of the fascinating process of root formation.

To get started, select a healthy cutting from a plant that propagates well in water, such as pothos, philodendrons, spider plants, or herbs like basil. The cutting should be 4–6 inches long, with the lower leaves removed to avoid rotting. Place the cutting in a glass or jar filled with water, ensuring that the nodes (where the leaves were attached) are submerged, as this is where the roots will emerge.

Position the container in a well-lit area with indirect sunlight. Direct sun can overheat the water or damage the tender cutting. Refresh the water every 3–5 days to prevent stagnation and maintain the health of the cuttings. Within a few weeks, you'll likely notice roots beginning to sprout.

Once the roots are 1–2 inches long, the cutting is ready to transition to soil. Gently plant it in a pot with fresh soil, water it thoroughly, and watch it thrive.

Water propagation is not only practical but also an enjoyable way to expand your plant collection, allowing you to witness nature's resilience. Give it a try and experience the magic of growing life from a simple cutting!



# Herbal First Aid Kit: What to Grow & How to Use it This Summer

by Judith Kohnen, Extension Master Gardener

6/16/2025

Summer brings sunshine, adventure—and sometimes scrapes, stings, or itchy rashes. Creating a simple herbal first aid kit with easy-to-grow medicinal plants can help you care for these common issues naturally.

- **Aloe Vera** is a first aid essential. Its cooling gel soothes sunburns, minor burns, and bug bites. Keep a plant in a sunny spot and break off a leaf to use the gel fresh.
- **Jewelweed**, a natural antidote to poison ivy and poison oak, is a must-have. It grows best in moist, shady areas. Crush the juicy stems and apply immediately to exposed skin or rashes to help neutralize itch-causing oils and speed healing.
- **Plantain** (*Plantago major*), often found growing wild, is a skin-healing powerhouse. It draws out toxins, soothes irritation, and reduces inflammation. Chew a leaf or crush it to make a quick poultice for bites, stings, or poison ivy rashes.
- **Yarrow** is known for stopping bleeding and promoting wound healing. Apply fresh leaves to cuts or scrapes, or brew a tea for use as a skin wash.



Other herbs to add to your medicinal cabinet are Calendula, Lavendar, and Chamomile—all three containing anti-inflammatory properties that heal and soothe inflamed or damaged skin.

To make your herbal kit, grow these plants in garden beds or pots. Harvest leaves and flowers to use fresh or dry for teas, salves, and compresses. Always label preparations and store them in clean containers.

Let your garden provide comfort, care, and connect you to the healing power of plants.

## RESOURCES:

<https://sites.evergreen.edu/plantchemeco/yarrow-the-healing-herb-of-achilles/>

<https://www.weedsandwildmedicine.co.uk/blog-1/plantain-the-sacred-herb-under-our-feet>

<https://scienceandartofherbalism.com/>

## Popular Pollinators (Part 1 Survey)

by Karen Woodring, Extension Master Gardener

6/23/2025

Pollinator Week is an annual celebration in support of pollinator health. This year, Pollinator Week 2025 is a celebration of the vital role that pollinators play in our ecosystems, economies, and agriculture. This year, we asked our master gardeners to share their favorite pollinators.

Rebecca Crow: “Luna Moth. I attract it by planting Moonflower, a hardy annual, next to my house. Love seeing them at night on the huge white Moonflower blooms.”

Pam Talbott: “My Favorite Pollinator is two because I can't decide. I love butterflies and hummingbirds. I have planted many native plants this year and started a small wildflower garden. I will be expanding it. In the past, I just used a lot of favorite annuals and feeders.”

Sarah Soldat: “As a vegetable gardener, my favorite pollinators are our predatory wasps, specifically the parasitic wasps. They do not harm humans or beneficial insects in the garden. Braconid and Scoliid wasps are some of the most common. Braconid wasps are most well-known for preying on the tomato and tobacco hornworm caterpillars, a vegetable gardener’s mortal enemy. And the Scoliid wasps prefer beetle larvae, keeping the June bugs in check.

Both are attracted to flowers such as Yarrow, Clustered Mountain Mint, and Late Boneset. They are one of the best biological controls for our veggie gardens!”

Laura Lemmon: “Short-toothed Mountain Mint (*Pycnanthemum muticum*), a Virginia native plant that draws in the pollinators, including butterflies and the small native bees. Mountain mint was also the first native plant I purposely planted in my garden years ago, so we have a long history.”



Photo Credits: Rebecca Crow (Luna Moth), Pam Talbott (Wildflower Garden), Sarah Soldat: (Blue-Winged Wasp at Maymont Garden) and Short-Toothed Mountain Mint (stock photo)

## Popular Pollinators (Part 2 Survey)

by Karen Woodring, Extension Master Gardener

6/30/2025

Pollinator Week 2025 has just ended, but we continue to celebrate the vital role that pollinators play in our ecosystems, economies, and agriculture every day. This year, we asked our Goochland Powhatan Master Gardeners to share their favorite pollinators. Here is Part 2 of the responses.

Michelle Kaufmann shared some great tips. Bees are one of her favorite pollinators. She plants various flowers and vegetables to attract them to her garden. Some of their favorites (and hers) are sunflowers, cosmos, zinnias, cucumbers, tomatoes, peppers, and squash. Equally important is providing multiple shallow water sources, such as using clay or ceramic saucers and even bird baths. Be sure to place a few small landing stones in the water to prevent drowning. Contrary to what some may think, bees can be pretty harmless, and they are peaceful garden companions.

Don Vickers said that his favorite is the Swallowtail butterfly, and they frequented his Sweet Joe-Pye Weed last August! They also frequented the garden phlox and Woodland Sunflowers.

Nancy Stephenson says the pollinators are loving her Coneflowers, Lantana, and Hydrangea.

From Karen Woodring: Thank you all for your great responses to the 'Popular Pollinator' Survey. We greatly enjoyed your insights and pictures. Thank you for sharing!

There will be another Survey this Fall, so put your thinking caps on and stay tuned for an email asking the question "What is your favorite gardening tool (and why)"?



Photo Credits (clockwise top left): Nancy Stephenson, Don Vickers, Michelle Kaufmann.

# American Beauty Berry

by Nancy Stephenson, Extension Master Gardener

7/7/2025

American Beauty Berry (*Callicarpa Americana*) is a member of the Lamiaceae (mint) family. This shrub is also known as the French Mulberry, sour bush, bunchberry, and purple beauty berry. This shrub is native to the United States, Bermuda, and Cuba. It grows up to 3-5 feet, but can reach 9 feet in optimal, moist soil conditions. It is a deciduous, perennial, woody shrub. You will most likely find this plant in moist woodlands, wet slopes, lower and rich nutrient bottomland, coastal forests, and at the edges of swamps. They thrive well in moist, rich soils, as well as sandy, medium, and clay loams. Leaf spots and black mold are diseases that may affect this plant.

This shrub's limbs exhibit a loose and graceful form. The leaves are a yellow/greenish color and can be up to 9 inches long with pointed or blunt tips. Their leaves tend to be in pairs or threes. Leaves are a favorite treat for deer. Their flowers form at the base of the leaves and are pink and in a dense cluster. During the fall, purple berries are produced, and they are made only on new growth. These berries are beneficial to many birds, but particularly to the Northern Bobwhite.

Native Americans used the leaves of this plant to treat malaria fevers and rheumatism. Within the early 20th century, farmers would crush the leaves and place them under the harnesses of horses and mules to repel mosquitoes.

These shrubs require little maintenance. They can be severely pruned before new growth begins in the spring to control their size and shape.

## References:

<https://www.wildflower.org>

<https://www.plants.usda.gov>

<https://plants.ces.ncsu.edu>



Photo was obtained from [www.istockphoto.com/photo/American beautyberry](https://www.istockphoto.com/photo/American-beautyberry)

# Gardening in Containers

by *Melanie Yates, Extension Master Gardener*

7/14/2025

Have you ever wanted to grow your own fruits and vegetables but felt limited because you don't have a garden bed? Good news—you can grow many of your favorite crops in containers!

Container gardens are space-efficient, offer greater control over your growing environment, improve accessibility, give mobility, and can enhance the aesthetics of your home.

Old pots, buckets, wagons, wading pools, wooden crates, plastic storage bins, and more can all be repurposed into containers for vegetable gardening. Get creative!

With a few drainage holes, a good potting mix designed for containers, and a spot that receives six or more hours of full sunlight per day, you'll be well on your way to growing your favorites.

Make sure to provide enough potting mix and space to accommodate the full size of the plants you're growing.

Keep an eye on your container plants, especially in hot weather, as they tend to dry out faster than plants in the ground and may need more frequent watering. Be sure to water thoroughly, until it drains out of the holes in the bottom.

And don't forget—have fun!

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Types of Containers for Growing Vegetables, University of Maryland Extension  
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Vegetable Gardening in Containers, Diane Relf, Virginia Cooperative Extension,  
<https://www.pubs.ext.vt.edu/426/426-336/426-336.html>



*Photo by Melanie Yates*

# Radiator Charlie's Mortgage Lifter Tomato

by Kelly Moore, Extension Master Gardener

7/21/2025

When you consider varieties of beefsteak tomatoes for your garden, you probably come across many with interesting names and promises of heavy, meaty fruit production. I want to share with you the Mortgage Lifter tomato, a plant that not only produces reliably large, juicy, and delicious fruit but also has an epic backstory.

In the 1930s, in Logan, West Virginia, a man named M. C. Byles operated a mechanic shop from his home. He was clever, as his business was situated at the bottom of a steep hill, so when work trucks' radiators would die during their attempts up the incline, they would roll back down and right to his doorstep. He quickly became known as "Radiator Charlie."

This wasn't his only venture, though. As a gardener and lover of tomatoes, like many of us, he set out to create a new breed to call his own. Byles planted a German Johnson plant alongside three other varieties. He hand-pollinated them, saved seeds from the best fruit, and continued the pattern after six years had developed a new beefsteak tomato.

Byles sold his new creation at \$1.00 per seedling, and after a few years, he had accrued enough to pay off his \$ 6,000 mortgage. Thus, the Radiator Charlie's Mortgage Lifter was born!

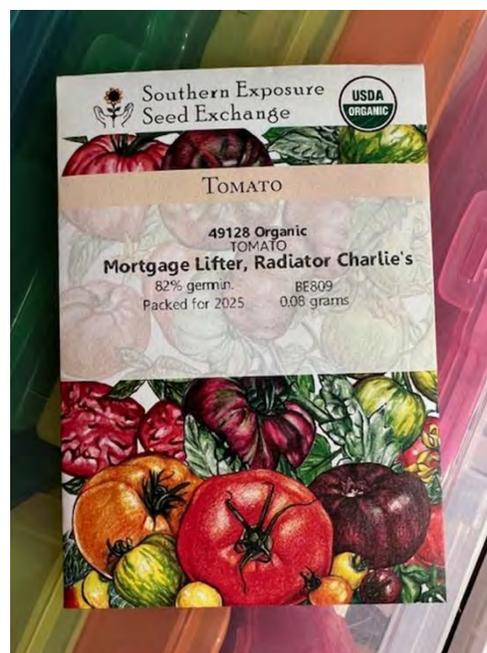


Photo by Kelly Moore

## References:

"Just Two Things Money Can't Buy." University of California, Agriculture and Natural Resources, The Backyard Gardener blog.

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"The Historied Mortgage Lifter Tomato." Jennifer Friend, WVU Extension Agent, Harrison County.

<https://extension.wvu.edu/.../08/01/mortgage-lifter-tomato>

# Creating a Dragonfly-Friendly Garden

by Holly Pugh, Extension Master Gardener Volunteer (Intern)

7/28/2025

Dragonflies, an ancient insect belonging to the order Odonata, are vital contributors to the ecosystems in which they thrive. Dragonflies are among the oldest living insects; their ancestors predated the dinosaurs.

It is essential to understand the dragonfly's lifecycle to create the ideal habitat. Female dragonflies lay their eggs in water. Upon hatching, the larvae (nymphs) begin an aquatic life. Dragonfly nymphs are voracious predators, feeding on mosquito larvae, tadpoles, and even small fish. This stage can last up to several years. During transformation, the nymph climbs out of the water and the adult emerges from the exoskeleton, dries off, and waits for its wings to harden before beginning the adult aerial phase. This phase is the shortest, typically lasting only a few months. The adult dragonfly can eat its weight daily and feeds primarily on other insects, such as mosquitoes, flies, moths, and bees.

A clean freshwater environment, such as a pond, lake, or stream — whether natural or artificial — provides ideal conditions for aquatic life to thrive. Incorporating some tall plants or reeds for perching and rocks to warm up in the sun will offer an inviting space for the adult dragonfly. A wildflower area that attracts a wide range of insects provides a great hunting ground for the adult dragonfly.

While dragonflies are widespread and resilient, several species face threats to their habitat. Conservation efforts to preserve wetlands, control invasive plants, and promote clean water can provide valuable protection for dragonflies.



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Schilling, E. G., Lawrenz, R., & Kundel, H. (2019). A review of the reproductive habitat preferences and conservation challenges of a rare, transient, and ecologically restricted darner dragonfly: *Rhionaeschna mutata*. *International Journal of Odonatology*, 22(1), 1-9. doi:10.1080/13887890.2018.1554513

# Paw Paw Trees

by Nancy Stephenson, Extension Master Gardener

8/5/2025

The Paw Paw Tree (*Asimina triloba*) is a native tree found primarily in North America and is a member of the tropical plant family. *Amonaceae*. It is a small understory tree found in numbers within the forest canopy. It is a deciduous tree with three large, lobed leaves that grows in deep shade to full sunlight. The leaves will turn yellow in the fall, and the bark is smooth with wart-like lenticels. They grow well in rich, acidic soils found in woodlands, well-drained lowlands, and drier uplands.

To produce fruit, these trees require pollinators, as they are not self-pollinating. Their pollinators consist of flies and beetles that transfer pollen between trees. When their flowers are in bloom, the trees tend to have an unpleasant odor, similar to carrion or rotting meat. This odor attracts their pollinators.

This tree produces edible fruit, which ripens in late summer and is ready to harvest in September and October. The fruit tastes like a banana, with a combination of vanilla, mango, and citrus notes. It can be considered a creamy tropical fruit. The fruit has the appearance of a green potato and could occur in clusters. The fruits are not typically available in stores because they are challenging to store, bruise easily, and have a short shelf life. Deer will avoid the tree's foliage. Opossums, raccoons, and foxes enjoy foraging for the fallen fruits. These trees are an essential food source for Zebra swallowtail larvae.

## References:

<https://plants.ces.ncsc.edu>

<https://npg.org>



Photo by Nancy Stephenson

## How to Save Tomato Seeds

by *Uwanna Thomas, Extension Master Gardener*

8/11/2025

You've grown your perfect tomato. Your open-pollinated tomato is everything you could want: robust, carefree, and, most of all, tasty. The best way to ensure you have your favorite tomato in your garden year after year is to save the seeds.

Saving tomato seeds is not difficult, but it does require a little time. Tomato seeds must go through a fermentation process to remove the gel coating that inhibits germination.

Cut the tomato in half and scoop the seeds and pulp into a glass jar. Add enough water so that the mixture is not too thick to stir and to provide enough room for the viable and non-viable seeds to separate. Cover the jar with a permeable material such as a piece of cloth or a coffee filter. Stir this mixture once or twice a day. The dead seeds will float, while the good, viable seeds will sink to the bottom of the jar.

The entire process should not take more than 4 days. Fermentation is complete when bubbling stops or a light layer of mold has formed for a day or two.

Next, skim the mold and pour off the dead seeds and scummy water. Rinse the remaining seeds until they're clean. Arrange them in a single layer on an aluminum pie plate or a coffee filter and allow them to dry thoroughly. Once dry, place the seeds in a container and store them in a cool, dark, and dry location.



# Attracting Bats to Your Virginia Garden – Part I

by Sheila Swiney, Extension Master Gardener

8/18/2025

Bats are often overlooked, but they are an incredibly beneficial part of a healthy garden ecosystem. In Virginia, where mosquitoes and garden pests are common, attracting bats can provide natural pest control while increasing local biodiversity. By understanding what bats need and how to create a welcoming environment, homeowners can encourage these helpful creatures to make their gardens home.

Bats are insectivores, meaning they feed primarily on insects such as mosquitoes, moths, beetles, and other bugs that most people would consider nuisances and damaging to plants. A single bat can eat up to 1,000 insects per hour, making them a powerful ally for natural pest management. In Virginia, common bat species like the Little Brown Bat and Big Brown Bat are particularly effective in controlling pests in both rural and suburban areas.

To attract bats, the first step is to provide appropriate shelter. Bat houses are an ideal option, especially in areas where natural roosts like dead trees or caves are scarce. These houses should be made from untreated wood, with rough interior surfaces that allow bats to cling easily. They must be 15 to 20 feet off the ground and face south or southeast to receive at least 6 hours of sunlight daily. Placing them on a pole or building rather than a tree increases occupancy, as bats tend to avoid predators that might lurk in branches. Multiple bat houses, especially of different sizes or mounted back-to-back, can accommodate varying species and colony sizes. Come back on 9/8/25 for part two!



*Adobe Free-Stock Photo*

## References:

<https://www.batcon.org>

# Attracting Bats to Your Virginia Garden – Part II

by Sheila Swiney, Extension Master Gardener

8/25/2025

Food availability is another critical factor in attracting bats. Although you can't feed bats directly, you can increase the number of insects in your garden by planting night-blooming flowers like evening primrose, moonflower, and yucca, which attract nocturnal pollinators that bats hunt. Avoiding chemical pesticides is essential, as these toxins can harm bats either directly or by reducing their food supply. A clean, reliable water source will also make your garden more inviting. This could be a pond, birdbath, or even a shallow dish placed in a quiet, sheltered spot. Bats need water to drink and often prefer to skim the surface in flight, so providing open water with minimal vegetation around the edges makes access easier. Lighting is another consideration.

Since bats are nocturnal and avoid bright areas, reduce or eliminate outdoor lighting where possible. Use motion-activated or downward-facing lights to minimize interference with bat activity. In addition to creating a bat-friendly environment, it's essential to educate neighbors and others in your community about the benefits of bats.

Many people fear bats due to myths about disease or aggression, but most bats are harmless, shy, and more helpful than harmful. Supporting conservation efforts and protecting local habitats benefits not just bats, but the entire ecosystem. By installing bat houses, planting night-blooming flowers, providing water, and reducing pesticide and light use, Virginia gardeners can turn their yards into bat havens. In return, bats offer natural pest control and contribute to a balanced, thriving environment for both plants and people.



Adobe Free-Stock Photo

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<https://www.batcon.org>

# How Honey is Made

by Kelly Moore, Extension Master Gardener

9/1/2025

To understand how honey is made, it is essential to know the anatomy of the honeybee. Specialized body parts enable the extraction of nectar from flowers, its transport back to the hive, transformation into another substance, dehydration, and safe storage.

First, the bee uses her straw-like tongue, or proboscis, to draw out nectar from a flower by flexing the strong muscles in her pharynx. Once the liquid is in her mouth, the salivary glands add enzymes, such as invertase, to the mix before it travels into her honey crop. A specialized valve keeps this second stomach closed, preventing its contents from entering the digestive stomach. The honey crop can be stored for maximum duration until the honeybees are ready to return to their hives.

Once the worker returns home, she will eject the transforming nectar from her mouth and hand it off to another bee in the colony who will either use it to feed brood or move it to long-term storage. If it is meant to become honey, she will distribute it into open cells of the comb and work with others to dehydrate the mixture by fanning their wings over the honeycomb. Once they are satisfied with the thickness of the honey, they will use specialized glands on the underside of their abdomen to secrete flakes of wax, which they will use to seal the comb.



## References:

College of Agricultural & Life Sciences, University of Wisconsin-Madison

<https://grow.cals.wisc.edu/deprecated/environment/knowhow-how-bees-make-honey>

University of Arkansas, Division of Agriculture, Research & Extension. "About Honey Bees: Types, Races and Anatomy.

<https://www.uaex.uada.edu/farm-ranch/special-programs/beekeeping/about-honey-bees.aspx>



*Photos by Kelly Moore*

## Rare Native VA Plants

by Pat Lust, Extension Master Gardener

9/8/2025

Virginia has some marvelous resources that provide information about the status and nature of our native plants in the state. If you want to know if a plant is native to your county, check the “Digital Atlas of the Virginia Flora” (link below). If you are a native plant enthusiast and don’t already have this Website bookmarked, you will want to do so.

Let me bring to your attention another essential and interesting resource for information about Virginia native plants. The “Natural Heritage Resources of Virginia: Rare Plants” (link below), published by the Virginia Department of Conservation and Recreation (DCR), includes essential information about the status of Virginia’s endangered native plants. This list of rare plants is extensive, identifying the status of each plant both globally and within Virginia.

The photograph attached to this post shows two plants included in the DCR list of rare plants. The Showy Tick-trefoil is classified in VA as critically imperiled (high risk of local extinction) and is currently found in only eight western and northern VA counties. If you’d like to try a Showy Tick-trefoil in your garden, visit the GPMGA Native Plant Sale and Pollinator Fair at Fighting Creek Park in Powhatan on September 20th. We plan to have a few Showy Tick-trefoil plants available. The Smooth Echinacea, the only echinacea considered native to Virginia, is classified as imperiled (at risk of local extinction) and is found in just over a dozen counties in Virginia, with the closest to us being Nottoway County.

References:

<https://www.dcr.virginia.gov/natural-heritage/document/plantlist-current.pdf>



Photos by Pat Lust

Showy Tick-trefoil – *Desmodium canadense*

Smooth Coneflower – *Echinacea laevigata*

# Plant Perennials in the Fall

by Pat Lust, Extension Master Gardener

9/15/2025

It may seem counterintuitive, but the best time to plant perennials is in early fall – late September and October. Here are three good reasons to plant perennials in the fall:

#1 Strong root system: Plants know that fall is not the time to produce new foliage and flowers, so they will spend their energy growing good roots and will be well established by spring when they are expected to make. (With fall-blooming perennials, you may want to cut off the flowers when you plant them so the plants can spend their energy forming roots rather than seeds.)

#2 Less competition: Annuals, including many weeds, have completed their life cycles and are ready for the compost heap. So, there will be less competition for water and nutrients for perennials planted in the fall.

#3 Bargains in the fall: The perennials at the nursery won't look as beautiful as they do in the spring because they are closing down for the season, so you can probably get twice as many for the price.

Fall is also a good time to divide the perennials already growing in your garden and to share the excess plants with friends and neighbors. You can make this your primary fall gardening task rather than worrying about the traditional fall cleanup. Please remember to leave some stalks, seeds, and other debris for the insects, birds, and other critters when you do a “minor” fall cleanup.



*Photo by Pat Lust*

## References:

Brooklyn Botanic Garden: Can I Plant Perennials in the Fall? –

[https://www.bbg.org/article/ask\\_a\\_gardener\\_can\\_i\\_plant\\_perennials\\_in\\_the\\_fall?](https://www.bbg.org/article/ask_a_gardener_can_i_plant_perennials_in_the_fall?)

Meadows Farms: Planting Perennials in the Fall -

<https://www.meadowsfarms.com/blog/excellent-fall-perennials/>

# North Georgia Candy Roaster Squash

by Kelly Moore, Extension Master Gardener

9/22/2025

Today, I am delighted to introduce you to a winter squash that has been grown, harvested, and eaten by folks in southern Appalachia for over a hundred years. It is called the North Georgia Candy Roaster as it originated in western North Carolina, eastern Tennessee, and northern Georgia. It was initially grown by the Cherokee people in the 1800s. In 1925, the Cherokee Nation decided to release these heirloom seeds to the public. An article in the Charlotte Observer tells how people could apply to purchase seeds through the Chamber of Commerce.

The North Georgia Candy Roaster starts with a light-yellow color and matures to an orange-beige with blue-green streaks on the end. This heirloom cross-pollinates easily, which has led to more than 40 known varieties that carry the candy roaster name. North Georgia specifically can grow up to 2 feet long and up to 15 pounds in weight. To keep these rare seeds accurate, the Cherokee Nation grows them in isolation and protects them in a seed bank within its Natural Resources Department.

This winter squash is cherished for its sweet flavor, resistance to winter frost, and ability to be stored for long periods. Its skin is thinner than that of most other winter squash, and the longer they are kept, the sweeter they become. It is said to be delicious in any recipe calling for squash, pumpkin, or sweet potato.



Photo by Kelly Moore

## References:

“North Georgia Candy Roaster: A Winter Squash to Remember.” Jon Traunfeld.

<https://marylandgrows.umd.edu/2017/11/17/north-georgia-candy-roaster-a-winter-squash-to-remember/>

“Candy Roaster – the Impressive Winter Squash.” Emily Barrow.

<https://extension.wvu.edu/lawn-gardening-pests/news/2024/12/01/candy-roaster-the-impressive-winter-squash>

# A Gardener's Best Friend

by Karen Woodring, Extension Master Gardener

9/29/2025

We all know the adage ‘The right tool for the right job.’ We fight the all-mighty weeds each day, and digging holes without any appreciable ground moisture is no fun! Abraham Maslow paraphrased Adam Kaplan with the statement, ‘If all you have is a hammer, everything looks like a nail.’ The Favorite Garden Tool Survey of the Goochland Powhatan Master Gardeners offered some interesting results.

Don Vickers likes the Weeding Tool pictured. Unlike the right-handed version, this works great for lefties as well.

Nancy Stephenson has many favorites: Bypass pruning hand clippers, a battery-powered 6” hand saw (for cutting limbs), a serrated garden knife (for weeding and digging) to name a few.

George Schuson appreciates the Hori Hori garden knife—a multi-purpose tool for prying, digging, cutting roots, measuring hole depth, and pruning.

Pam Talbott recommends her soil knife and her mattock pick. Both are very useful against those dreaded roots that refuse to pull easily.

My favorite is now the Hula Hoe. I have to weed under shrubs and sloped areas. This long-handled tool allows me to avoid direct contact with Poison Ivy and doesn’t disturb the mulch bed as much as a rake or trowel would.

Whatever tool you choose, it is essential to provide regular maintenance by cleaning, sharpening blades and tightening loose nuts and screws. Store your tools in a dry, protected space, and they will give many years of service to you.

## References:

North Carolina Extension Garden Handbook/Appendix D/Garden Tools



*Photo by Don Vickers*

## ***Stevia rebaudiana*: Sweet Herb of Paraguay**

by *Uwanna Thomas, Extension Master Gardener*

10/6/2025

Here's an herb that's 300 times sweeter than sugar. Stevia is a natural sweetener that offers several health advantages: it contains zero calories, does not raise blood glucose levels, and does not promote cavities.

Often grown as an annual in our zone 7 climate, it also flourishes in a sunny window as a houseplant. Prune back your stevia plant a few times throughout the growing season to prevent flowering and to encourage branching. Stevia is a miraculous beverage enhancer. Just drop a fresh or dried leaf or two into your favorite concoction. Otherwise, use this easy-to-make liquid extract made with fresh (or dried) stevia leaves and vodka.

Wash the leaves and coarsely chop them. (if using fresh). Place the leaves into a clean, glass jar. Fill the jar with vodka, making sure the leaves are completely covered.

Place the lid on securely, give it a good shake, and set it aside. Let the leaves steep in the vodka for around 48 hours. If you let it sit longer, the resulting extract will be bitter. Strain the leaves from the vodka. Pour the extract into a small saucepan and heat for 20 minutes. Do not let it boil. Heating will remove alcohol and improve sweetness. It will also thicken up a bit and reduce in volume. Pour your finished extract into a small bottle and refrigerate. It should last several months.

For use in baking, finely grind dried leaves. One teaspoon replaces 1 cup of sugar.



*Photo by Uwanna Thomas*

### **References:**

Winger, J. (2014). How to Make Stevia Extract, The Prairie Homestead, Last updated 2019.  
<https://www.theprairiehomestead.com/2014/08/homemade-stevia-extract.html>

# Forest Succession

by *Laura Lemmon, Extension Master Gardener*

10/13/2025

Forest succession refers to the natural process by which the composition of a forest changes over time due to disturbances such as fire, flooding, land clearing, or tree harvesting.

For example, pine plantations, created and managed by humans, represent an early stage in forest succession, which can lead to more diverse forests. Pine species may dominate cleared fields or disturbed areas due to their rapid growth in full sunlight and potentially barren soil. Over time, the pines may be replaced by more shade-tolerant hardwoods, such as oak, beech, and hickory. A mature forest with a mix of species is known as a climax forest.

Part of succession includes tree loss and a change in flora and fauna. For example, when a tree dies, the "snag" becomes habitat for mammals, insects, and birds. Some species, like woodpeckers, choose dead trees to make their homes with an insect dinner right outside the door! Pioneer species appear in the clearing, both native and invasive species. New growth is based on seeds resting in the soil until they are disturbed and germinate, a process known as the "seedbed." During the Autumn season, a careful observer can see examples of forest succession in the variety of leaf and flower colors.

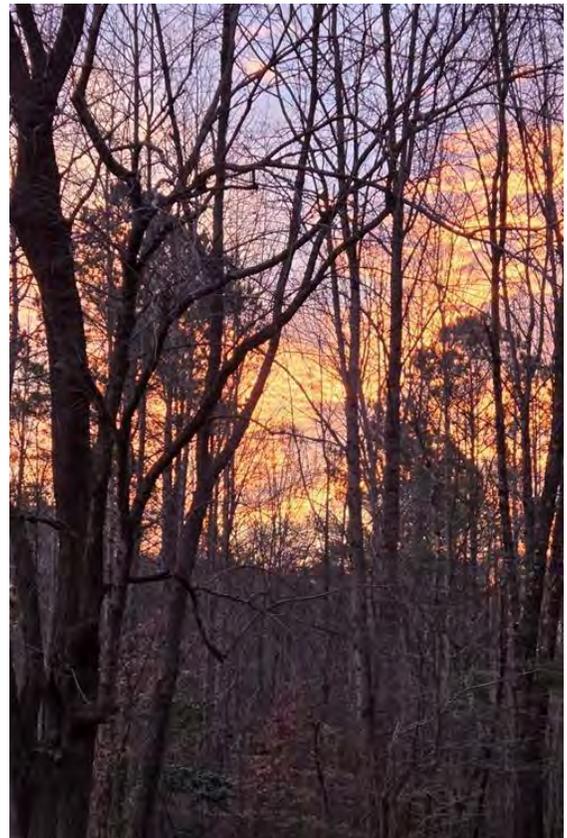
## References:

Duke Forest Succession

<https://dukeforest.duke.edu/forest-environment/forest-succession/>

Welcome to the Woods! A Guide for New Virginia Woodland Owners

<https://www.pubs.ext.vt.edu/ANR/ANR-136/ANR-136.html>



*Photo by Laura Lemmon*

## Plant Oddity: Pumpkins on a Stick

by Karen Woodring, Extension Master Gardener

10/20/2025

These little cuties are ornamental eggplants, *Solanum integrifolium*, and so fun to grow if you have just the right spot for them. They need sun, their 'personal space', and support. Fertilize them as you would tomatoes. I start mine under grow lights from the previous year's seeds about 6 weeks before the last frost.

Every year, I try to find the perfect spot for them at my house since their thorns rival roses. They make excellent trap plants, so I plant them close (but not TOO close) to my vegetable garden. This year, I tried placing four plants together to support each other against a sunny fence. I added a piece of wire fencing, and we still managed a few scratches as we passed through the gate next to them. Lesson learned!

They are ready to harvest in about 65-70 days. Cut the branches long and carefully remove all the leaves. I like to cure mine in the garage on a mesh tray for a bit. They will continue to ripen after being cut, so make sure to harvest before a frost hits.

Pumpkins on a stick are edible and used in stir-fry (although I never have). To be edible, you would need to harvest when their skin is shiny green. As they turn reddish orange, they become bitter-tasting. I grow them for ornamental purposes, and they become their own seed holders for next year's crop!



Photo by Karen Woodring

### References:

<https://cutflowers.ces.ncsu.edu/capsicum-pumpkin-on-a-stick/>  
<https://www.thespruce.com/pumpkin-on-a-stick-plant-4773067>

# Leave the Leaves

by *Laura Lemon, Extension Master Gardener*

10/27/2025

Did you know that October is National Leave the Leaves Month? You may have seen articles or memes advising you not to rake leaves this year. I know I have, and it may be my social circle, but your local native insect population would appreciate it if you left the leaves this Fall season.

Leaving the leaves doesn't mean an unkempt yard area. Of course, leaves should be removed from access areas, like sidewalks and driveways, for safety reasons. Also, lawns may be mowed for aesthetic reasons and to avoid neighbor complaints. Mulching leaves while mowing is a way to feed the turf as part of lawn care.

Leaves will be beneficial if left in less-used areas, like the wood line or garden beds. Gently rake the leaves, and any cocoons, sleeping insects, or caterpillars, into their final resting place. The leaves eventually decompose and become part of the soil. Meanwhile, the leaf litter provides homes for many of our native insects, including bumblebees, moths, caterpillars, and the larvae of our beloved lightning bugs.

Want to see more lightning bugs in a year or two? Leave the leaves in wooded areas and provide hiding spots in your gardens!



## References:

**Leave the Leaves** - <https://richmond.ces.ncsu.edu/2016/10/leave-the-leaves/>

**Leaving the leaves saves pollinators and other beneficial insects** - <https://extension.missouri.edu/news/leaving-the-leaves-saves-pollinators-other-beneficial-insects>

# Native Bee Hotel

by Shere Macumber, Extension Master Gardener

11/3/2025

Solitary bees like mason bees and leafcutter bees are vital pollinators in Virginia gardens, and unlike honeybees, they don't live in hives. Instead, they seek small holes in wood, stems, or soil to lay their eggs. Building a bee hotel provides much-needed habitat for these beneficial insects—and it's simple to do with natural, local materials.

Start with a small wooden box, approximately 6 inches deep, with an open side. Inside, tightly pack a variety of hollow materials such as cut bamboo, dried elderberry or sunflower stems, or drilled hardwood blocks (not pressure-treated). Each hole should be between 3–8 mm in diameter and 4–6 inches deep. Avoid using plastic or glass, as these materials can trap moisture and harm developing bees.

Place the hotel at least 3 feet off the ground, facing southeast to catch the morning sun and sheltered from heavy rain. Ensure the structure is secure and doesn't sway in the wind. Solitary bees are most active from early spring through summer, so install your hotel by March.

Once occupied, avoid moving or disturbing the hotel. In the fall, gently clean or replace materials to prevent mold or mite buildup. Providing clean, dry tubes each season can significantly improve bee health and success.

By offering a safe nesting site, you'll support native pollinator populations and enjoy improved pollination in your garden — a small, meaningful way to contribute to local biodiversity.



Photo by Shere Macumber

## Reference:

[https://www.pubs.ext.vt.edu/content/dam/pubs\\_ext\\_vt\\_edu/ENTO/ENTO-151/ENTO-424.pdf](https://www.pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/ENTO/ENTO-151/ENTO-424.pdf)

# American Beech Tree

by Nancy Stephenson, Extension Master Gardener

11/10/2025

The American Beech (*Fagus grandifolia*) Tree is one of my favorite trees. It is a native tree found in Canada, extending west to Wisconsin, and South to East Texas and northern Florida. It is more common within the Piedmont area in the mid-Atlantic and along the coastal plain. Some familiar names are Beech, Beechnut tree, Red Beech, Ridge Beech, and White Beech.

This tree has smooth, grayish bark that distinguishes it from other trees within the woodland forest where it is found, growing in well-drained soil. Its roots are shallow and do not tolerate compacted soil. It prefers moist, well-drained, acidic soil and is typically found in woodlands with oaks, hickories, and poplar trees. It is a slow-growing plant, generally characterized by low-hanging branches, but once mature, it develops a beautiful canopy. At maturity, it can reach 60 – 80 feet tall and can live from 300-400 years. It tolerates sun and shade. The leaves are 2-6 inches long, toothed, and tapered at the ends. In the fall, this tree puts on a spectacular display with leaves turning from green to yellow and then to tan. Younger trees will retain their leaves until spring when new growth begins. But the tan coloring speckled throughout the forest is more interesting during the winter months than just bare trees.

Beech trees have male and female flowers on the same tree (monoecious). The male flowers are yellow, with a red edge. Female flowers are yellow and are in pairs. The beech nuts produced are triangular in shape and are harvested each fall, ripening on the tree. A picture of a branch with its fruit is shown below. Deer, black bears, foxes, turkeys, ducks, woodpeckers, white breasted nuthatches, crows, blue jays, and grouse eat these nuts. This tree hosts more than 125 butterflies and caterpillars.

The wood of this tree is hard and strong, with a high fuel value. The wood is susceptible to splitting and is therefore not suitable for use in furniture or construction. The wood is odorless and tasteless and thus is used to make cutting boards, barrels, and tool handles.

This tree is susceptible to two diseases: beech leaf disease, caused by a nematode, and beech bark disease, a native fungus that invades after an introduced scale insect feeds on the tree. Beech scale and Beech blight aphids can also be a problem.



Image from Laval University Library Collection. Distributed under the Attribution-Share Alike 4.0 International license.

## References:

<https://research.fs.usda.gov/srs>  
<https://plants.ces.ncsu.edu/>

# Thankful for Sage

by Laura Lemmon, Extension Master Gardener

11/17/2025

Sage is a traditional herb of Thanksgiving, prized for its flavor that complements savory dishes like turkey, sausage, and stuffing. Sage's traditional association with the holiday is rooted in both flavor and historical practice. Today, we know that Sage is an antibacterial herb. Our ancestors learned that to ensure food safety, it was best to add an abundance of Sage to stuffing. In traditional lore, Sage is known to aid in the digestion of rich, fatty foods, making it a functional addition to a heavy holiday feast.

Beyond flavor, Sage is also synonymous with wisdom. In the 17th century, physician Nicholas Culpeper claimed that Sage "heals the memory, warming and quickening the senses".

Our familiar Culinary Sage, *Salvia officinalis*, is an aromatic perennial shrub in the mint family native to the shores of the northern Mediterranean. A valuable addition to any herb garden, Sage grows best in a sunny location with well-drained soil and tolerates some drought. Purple flower spikes appear in Summer. For the best flavor in cooking, this short-lived perennial is best replaced every few years, or at least every few growing seasons.

Salvia, the Latin name for Sage, translates to "Life," so add some life to your foods this holiday season with sage!

## References:

<https://plants.ces.ncsu.edu/plants/salvia-officinalis/>

<https://hort.extension.wisc.edu/articles/sage-salvia-officinalis/>



*Salvia officinalis* illustration by Carl Stupper

# Herbs in the Cold Season

by Judith Kohnen, Extension Master Gardener

11/24/2025

As the garden slows down in late November, many herbs are still offering us benefits if we know how to care for them.

## Outdoor care:

- Hardy herbs like **thyme, sage, oregano, rosemary, and winter savory** can withstand chilly nights.
- Add 2–3 inches of mulch (shredded leaves or straw) around roots to insulate soil.

## Indoor strategies:

- Tender herbs such as **basil, parsley, cilantro, and lemon balm** dislike frost—pot them up and move indoors.
- Place on a sunny windowsill or under grow lights.
- Snip leaves often to encourage fresh growth.

## Preserving herbs:

- Dry sprigs of **mint, rosemary, or lavender**: tie bundles, hang in a warm airy spot, then store in jars.
- Freeze chopped herbs like **chives, dill, or tarragon** in olive oil cubes for easy flavor boosts in winter stews.



Image from Judith Kohnen's November garden.

Gardening in November is less about planting and more about protecting, preserving, and planning. A little care now ensures your herbs' flavor, fragrance, and healing qualities carry into the heart of winter. Whether you're sipping herbal tea, seasoning soups, or preparing remedies, your garden's bounty can still nourish you through the cold.

## Resources:

VCE Publications | Virginia Tech –

<https://www.pubs.ext.vt.edu/426/426-420/426-420.html>

NC State Extension Publications –

<https://content.ces.ncsu.edu/winterizing-the-herb-garden>

University of Maine Cooperative Extension –

<https://extension.umaine.edu/gardening/2022/10/04/how-do-you-prepare-potted-perennial-herbs-for-winter-outside/>

# Birds and Native Plants, Part I

by Joanne Gergle, Extension Master Gardener

12/01/2025

Native plants play a crucial role in supporting bird populations by providing essential food, nutrients, and shelter that are vital to their survival, reproduction, and migration, while also showcasing the beauty of nature. This includes species such as native oaks, maples, dogwoods, hollies, serviceberries, sumacs, black-eyed Susans, goldenrods, and coneflowers.

Baby songbirds require large quantities of caterpillars, which are abundant on native oaks and maple trees, but rarely on non-native varieties. Oak and maple trees can support over 500 species of caterpillars that are vital for the survival of young songbirds.

Flowering dogwoods, elderberries, and persimmons produce fruits that nesting birds rely on. American holly, winterberry, and serviceberries also offer important berries for birds. Female Sumac plants produce fuzzy, red fruit clusters that are high in fat and highly appealing to birds!

Black-eyed Susans, Goldenrod, Joy-Pye Weed, Asters, and coneflowers provide seeds that many bird species enjoy. Additionally, ornamental native grasses, such as switchgrass and Little Bluestem, not only produce tasty seeds but also offer winter shelter. Native coral honeysuckles attract insects and provide nutritious berries and nectar for birds.

By planting a diverse range of native trees, shrubs, perennials, and grasses, you actively contribute to the survival of local bird species. This approach ensures birds have a continuous supply of essential berries, fruits, seeds, nectar, insects, and eco-friendly shelter options throughout the year.



*Yellow Warbler on Goldenrod, Adobe Licensed Photo*

Please research the specific needs of the native plants that you want to grow to determine the species, toxicity, growing conditions, control of spread, care, maintenance, and upkeep that match your gardening style.

## References:

VA Dept of Wildlife: <https://dwr.virginia.gov/wp-content/uploads/media/Habitat-at-Home.pdf>  
Virginia Native Plant Guides at <https://vnps.org/virginia-native-plant-guides/>  
Plant VA Natives at <https://www.plantvirginiannatives.org/>

## Birds and Native Plants, Part II

by Joanne Gergle, Extension Master Gardener

12/08/2025

Native plants are crucial to protect bird populations, in that they offer natural food sources, shelter, and nesting materials for residents and migratory birds; and include:

Oaks and maples, which host hundreds of insects, deliver acorns and seeds, and provide shelter and nesting habitats for bluebirds, cardinals, chickadees, finches, jays, nuthatches, robins, woodpeckers, and other birds. Oaks are a primary source of food for baby birds' survival. Maples contain residual sap for hummingbirds in late winter and early spring.

Dogwoods supply nutritious berries and host insects for bluebirds, cardinals, robins, thrushes, waxwings, warblers, and other bird species.

Persimmons yield fruits for jays, robins, woodpeckers, warblers, and other songbirds.

Elderberry clusters are bluebirds, cardinals, finches, robins, and 40+ other species of birds' delights, especially during migration.

Holly berries are nutritious, high-fat food sources for bluebirds, cardinals, goldfinches, mockingbirds, robins, thrushes, woodpeckers, and thirty-five other feathered friends. Hollies also shelter birds from the weather and predators.

Female Sumac produces fuzzy, red fruit clusters rich in fat that birds eat, including bluebirds, chickadees, cardinals, robins, sparrows, woodpeckers, and 300 other species.

Black-Eyed Susans, asters, coneflowers, joe-pye weed, and goldenrod attract seeds and host insects for chickadees, cardinals, finches, juncos, nuthatches, titmice, sparrows, wrens, and others, especially those leftovers in the fall and winter.

Coral honeysuckle bears nutritive berries, nectar, and insects that attract birds such as finches, goldfinches, hummingbirds, robins, thrushes, waxwings, and quail.

Switchgrass and Little bluestem provide seeds, serve as hosts for insects, and offer shelter for cardinals, finches, juncos, quail, sparrows, wild turkeys, and other birds.

### References:

VA Dept of Wildlife: <https://dwr.virginia.gov/wp-content/uploads/media/Habitat-at-Home.pdf>  
Virginia Native Plant Guides at <https://vnps.org/virginia-native-plant-guides/>  
Plant VA Natives at <https://www.plantvirginianatives.org/>



Virginia Cardinal in Dogwood Tree, Adobe Licensed Photo

# Bayberry and Holiday Traditions

by Laura Lemmon, Extension Master Gardener

12/15/2025

Southern Bayberry (*Morella cerifera*), also known as Wax Myrtle, is an evergreen shrub native from New Jersey to Central America, westward to Oklahoma and Texas. Small white blooms in Spring develop into waxy berries.

Bayberry has a rich history of lore and practical uses, particularly in the South. The plant has been used for candle-making, medicinal purposes, and as a seasoning. The waxy berries were boiled to extract wax for fragrant candles, a tradition carried on by early colonists and still practiced today by artisans. Bayberry leaves are aromatic and have been used to flavor food and to repel insects. The plant also has a history of use in traditional medicine, with various parts used to treat ailments ranging from fevers to digestive issues.

As well, Bayberry or Wax Myrtle has long been part of holiday traditions in the South. Its evergreen branches are used in household decorations and wreaths. A long-standing tradition of lighting a bayberry candle on Christmas Eve or New Years Eve endures. The burning candle is believed to bring health, wealth, and prosperity to the household. An old rhyme associated with the tradition is: "A bayberry candle burned to the socket, brings luck to the house, food to the larder, and gold to the pocket".



*Photo credit: Ladybird Johnson Wildflower Center*

## References:

Plant of the Month: Southern Bayberry or Wax Myrtle

<https://www.nvnps.org/blog/fw2hjplv0f518rtwjawhy99iv3heqd>

Wax Myrtle Sparkles in Winter

<https://vnps.org/wax-myrtle-sparkles-in-winter/>

# Cold Starts: Seed Stratification vs. Winter Sowing

by Judith Kohnen, Extension Master Gardener

12/22/2025

Not all seeds sprout the same way. Some need a cold nap before they wake up, while others thrive when sown outdoors in winter. December is the perfect time to explore both seed stratification and winter sowing.

## Seed Stratification

- Many perennials, herbs, and native wildflowers (like milkweed, lavender, and coneflowers) need weeks of cold, moist conditions to break dormancy.
- Stratification mimics nature: seeds are placed in a damp medium (like sand or peat) and stored in the refrigerator for 4–8 weeks.
- By spring, they're primed to germinate once planted.

## Winter Sowing

- Instead of the fridge, seeds are sown outdoors in containers (milk jugs, soda bottles, or clear tubs) with drainage holes.
- These mini-greenhouses sit outside, exposed to rain, snow, and natural temperature swings.
- Hardy vegetables (spinach, lettuce, Swiss chard, kale, cabbage) and native flowers sprout when conditions are right, often earlier and stronger than indoor starts.

## The Difference

- Stratification is about preparing seeds indoors with controlled cold.
- Winter sowing is about letting nature do the work outdoors.
- Both methods give gardeners a head start and expand what can be grown successfully.

December offers the long, steady cold period seeds need. Think of it as a gift to your future garden: a little preparation now means healthier sprouts and earlier blooms come spring.

## Resources:

<https://cce.cornell.edu/orleans/winter-sowing-101>

<https://extension.missouri.edu/publications/ym105>

<https://www.ramseymastergardeners.org/post/all-about-seed-stratification>

<https://piedmontmastergardeners.org/article/seed-stratification-why-does-temperature-make-a-difference>



# How to Create a Mini Meadow with Little Bluestem and Purple Lovegrass

by Shere Macumber, *Extension Master Gardener*

12/29/2025

Creating a mini meadow with native grasses like Little Bluestem (*Schizachyrium scoparium*) and Purple Lovegrass (*Eragrostis spectabilis*) is an excellent way to transform a small, sunny, dry area into a low-maintenance, wildlife-friendly garden. Supporting local pollinators and birds can make your space more vibrant and meaningful.

Start by selecting a site with full sun and dry to moderately dry soil. These grasses thrive in poor soils and don't need amendments or fertilizers. Clear the area of existing turf or weeds using solarization, smothering with cardboard, or careful hand removal.

In early spring or fall, plant container-grown plugs or scatter seed. If seeding, mix native grass seed with dry sand for even distribution. Press seeds into the soil, but do not bury deeply—both species need light to germinate. Water gently until established. These seasons are ideal for success and help you feel ready to start your meadow.

Space Little Bluestem about 18–24 inches apart. This upright grass turns brilliant shades of copper and red in fall and provides nesting cover for insects and birds. Tuck in clusters of Purple Lovegrass at edges or between Bluestem—its delicate, purple-pink seed heads form a soft, cloud-like haze in late summer.

Once established, maintenance is minimal. Cut back grasses in late winter and remove any aggressive weeds that may sneak in. This simple routine can make your meadow a stress-free, rewarding project.

A mini meadow adds visual interest, supports pollinators, and requires no irrigation or fertilizing, making it a sustainable and attractive choice for Virginia gardeners seeking native beauty in small spaces. Creating one now can enhance your garden's ecosystem and beauty with minimal effort.



*Photo by Shere Macumber*