An E-mail Gardening Newsletter from Cornell Cooperative Extension of Rensselaer, Albany and Schenectady Counties

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Root Concerns

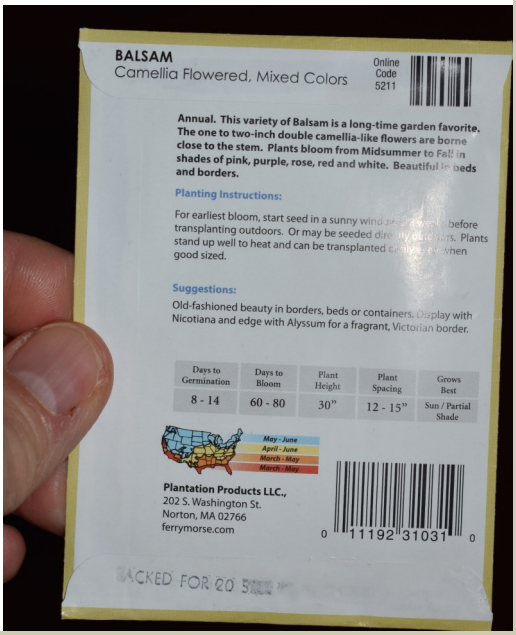
Notes from the underground

Getting A Head Start

Gardening guru Jerry Baker said plants were like people, and I believe seeds are, too. Some seeds grow easily under many conditions, like your friend who thrives no matter what life gives her. Similar to your black sheep cousin arriving on your doorstep, some seeds germinate unexpectedly by the back steps, in the driveway gravel, or in the compost pile. Others are as fussy as your little sister, needing precise coddling to get moving.

This last group of seeds generally requires starting indoors well before planting out in the wide world. The tiny print on the seed packet gently suggesting "start indoors eight to ten weeks before planting out" is a warning to plan ahead. Other crops, such as tomatoes, germinate easily but take a good three months or more to fruit, so giving them a head start indoors assures production in the current calendar year.

After assessing which seeds need what conditions, assemble your gear. I like to use a soil-less mix, containing peat, perlite and vermiculite, specially formulated for seeds. It's lightweight, drains well, and contains no killer pathogens. You can make your own mix, and even pasteurize it in your kitchen oven, but the stink and mess can substantially reduce household harmony. I also use professional grade plastic cells, those familiar "six packs" seen in nurseries, but a wide array of food containers, cleaned and given drainage holes, may work just as well. Containers can also be fashioned as soil blocks, made from peat or coir, or created from newspaper.



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Seedlings need light, a tricky proposition if you rely on a windowsill location here in sun-deprived upstate New York. While the daylight is incrementally getting longer, cloudy days and low light intensity tend to leave seedlings spindly and weak. Luckily, we've got artificial options. Swanky "growing systems" with stands, trays, and lights are attractive, durable and easy to use. Still, they're too costly for thrifty me, who relies on classic "shop lights," the four foot fixtures with two fluorescent bulbs. Newer T-8 bulbs are longer lasting and more economical than the older T-12 type, while LED bulbs are more efficient still, and seedlings of most plant species will thrive under all of them. Special "grow lights," which produce more red and far-red light, are not needed for seedlings, but are a must if you're trying to grow flowering plants under lights, such as African violets or orchids.

A swift kick in the bottom gets me motivated on Monday morning; a seed's equivalent is bottom heat. Put your seed tray on a heat mat, plug it in, and watch germination time drop as the seeds pop. Put the tray on a warm surface – the top of the refrigerator or furnace – to get the same effect. While many seeds will grow at normal room air temperatures, extra root-zone warmth helps. The biggest danger is over-exuberance. If your 'Lemon Gem' marigold packet advises six weeks start time, plant them on April 1, not February 1. Seedlings get cabin fever just like the rest of us.

Text and photos by David Chinery

Watch our seed starting video on the Web at the Cornell Cooperative Extension of Rensselaer County YouTube Channel at: Cornell Cooperative Extension of Rensselaer County - YouTube

Seeds Starting Basics Annuals and Vegetables- Lunch In The Garden Webinar Series

460 views • 3 weeks ago

Cornell Cooperative Extension of Rensselaer County

Starting your own seeds indoors is a fun project, lets you grow the exact plants you like, and gives you seedlin share with ...

Turtlehead, Pink and White

Last year I bought three pink turtlehead plants at a local nursery's year-end perennial sale. Turtlehead was recommended several years ago at a presentation by Cornell Cooperative Extension of Schenectady County. Turtlehead would be good for damp, shady ecosystems. I made the purchase to add to the native white turtlehead growing along the brook in the wetland.

Turtlehead plants are late season bloomers so it is always a challenge to find them early in the season and separate them from the un-wanted weedy plants and retain the turtleheads. I was confident the new additions to the garden would be successful because of their native heritage. Others were growing here unattended and unnoticed by the local deer for many years.

It was not to be for the cultivated, horticultural turtleheads. Their buds were snipped off before flowering by the local doe and her two children. The plants fought on showing some small seed heads at the time of garden cut back in the fall. However, the local natives persisted, continuing on without the gardeners' assistance. Several native turtlehead established themselves within the wires of the horse paddock fence. They escaped deer, voles around their roots, the lawn mower and weedwacker.

These hardy natives grew up through the wire mesh, blossomed and set seed. Their garden bed is a narrow strip about 4 inches wide along the fence line. It is difficult to find them early in the season along the stream in the wetland. There are many similar looking wild plants so until the turtlehead begins to bud and flower it is difficult to spot them in the wild.

Turtlehead is a native perennial. It blooms from August through October. It will grow in sun to full shade. Soil preference is acidic (pH<6.8) and wet to moist. The white flower is easily identified when in bloom. As a late bloomer, it provides a source of energy for pollinators into the autumn season. It is attractive to butterflies and hummingbirds. Turtlehead is the larval host for the Baltimore Checkerspot butterfly. It is described as growing in most of the eastern half of the United States. It is usually found along stream banks and damp ground growing to a height of 2 to 3 feet. Here it grows 18 to 24 inches. The plant has a square stem with leaves that are opposite, toothed and narrow. In a damp marshy area many inhabitants look very similar. There is a lot of green and no labels.

Turtlehead, *Chelone glabra*, is listed in the plant database of the Lady Bird Johnson Wildflower Center. Its' description says the terminal cluster of white 2-lipped tubular flowers are often lavender-tinged. The pink horticultural variety may have been bred from that lavender-tinge in the wild native. Garden uses for turtlehead include shade/woodland gardens, bog gardens and the edges of pond or water gardens. It is a natural for native plant or wildflower gardens that have the moist soil conditions. Next spring, the new pink turtlehead will be moved to more natural places in the garden to hopefully hide them from the neighborhood deer herd.

Text and photos by Rensselaer County Master Gardener Richard Demick

Horticulture Dreamin'

February usually finds me in "winter fatigue." It's not the cold and snow but their troubling consequences I find daunting. Will the car start up then stay on the road, will the furnace keep working, will I break my bottom falling on the ice? Our now familiar nemesis, the pandemic, has made solution to cabin fever, like socializing or ambling out to a museum, off-limits. Luckily, we gardeners have another option – garden daydreams.

Consider color. The snow finally melts, leaving the brown, garbage-strewn earth, then one day in April buds on soft maples start to show the faintest red. Hillsides become clothed in the pale greens, yellow-greens and maroons of expanding foliage and the pure white of shadbush blossoms. Pussy willow buds explode to reveal fuzzy gray catkins, making honeybees buzz joyfully. Soon spring comes on like a freight train, with chrome-yellow forsythia, Pepto-Bismol pink cherry blossoms, vibrant red tulips. My favorite colors appear at the height of summer. Screaming orange Mexican sunflower, bottle-blue gentian sage and pale, pale yellow *Abelmoschus manihot* all bloom in the dog days, each blossom as deep and rich as a July sky. Nature makes every color imaginable, but unlike home décor, they never clash or look out of place.

How does gardening feel? In spring my back creaks as I dig and spread compost before planting peas, then the warm air cools quickly after sunset. In summer I don my favorite gardening outfit – faded turquoise bathing suit, work boots, raggedy cutoff t-shirt from a 1999 trip to Maine – slather on sunscreen, and go out to weed. And perspire. Dripping sweat proves that gardening is no sissy activity. I like the dirt and salt on my hands and knees, and sunshine on my shoulders makes me happy. I remember the tactile-ness of vegetables, like the cool curvaceous smoothness of an eggplant, the fragile delicacy of a very ripe, very large Brandywine tomato, or the heft of a melon popped off the vine. Rounding up dumpy, lumpy Hubbard squashes in October measures the bounty of the season, and the mind feels good putting up food for winter.

Plants are largely silent, but recall the sound of summer rain pounding a tin roof, the hard splat of black walnuts hitting the driveway, the whoosh of wind in a white pine. The dawn chorus of newly-arrived birds in early May is a thrill. It doesn't seem as loud as it used to: I hope it is my imagination, and not their numbers (or my hearing) declining.

Garden smells are iconic but words fail to adequately describe. The earthy scent of the first warm spring days brings hope, as does the tang of damp compost. Consider the dusky sexiness of Chinese chestnut blossoms, the floral extravagance of pink 'Queen Elizabeth' roses, the green odor of a cornfield. My active, healthy hive of bees storing pollen, making honey and wax and brood, smells like nothing else. Imagine fresh cut grass, barbeque grills, smoky campfires. Garden daydreams restore sanity and are safer than walking on ice during a pandemic.

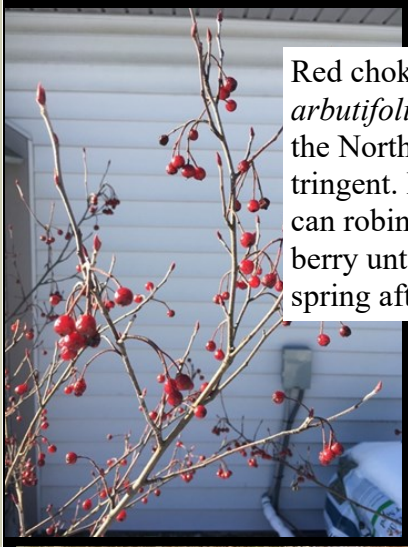
Text by David Chinery & photos by Meg Distell

Green Shots: The Gardening World in Pictures

Winter scene's from Master Gardener Richard Demick's Rensselaer County backyard.

The beautiful exfoliating bark of the river birch, *Betula nigra*, is a winter home for insects. It is also a place for chickadees to stash seeds.

Milkweed, *Asclepias syriaca*, is an example of Mother Nature's resurrection of life as the seed pods burst and the solitary seed flies away to reproduce at a new location.



Red chokeberry, *Aronia arbutifolia*, is a native to the Northeast. It is very astringent. Birds like American robins do not eat the berry until the following spring after it has fermented

Bridalwreath spirea, *Spiraea vanhouttei*, creates winter interest in the landscape. Chickadee, cardinal and junco find it a safe place to rest.

Miscanthus creates great winter interest as the fronds sway in the wind. Heavy snow can bring it down but it often pops back up after a thaw. This native from Asia isn't attractive to northeast birds and insects.

Joe Pye weed, *Eutrochium purpureum* (formerly *Eupatorium purpureum*) is a winter home for insect larvae. Pollinators flock to it in late summer.

PURPLE DEADNETTLE

Deadnettle is not related to the stinging nettle. It's not really clear where the name originated. Most sources suggest it has some physical resemblance in leaf structure and the 'dead-nettle' description signifies it is not a 'stinger'. In my experience, mature stinging nettle is two to three feet tall growing around old farm buildings while dead nettle 8 to 10 inches growing like a ground cover around garden beds and under shrubbery in the home landscape.

Purple deadnettle is found throughout Europe, Asia, North America and parts of New Zealand and Australia. Food foragers say the leaves and flowers can be eaten raw or cooked making it a nutritious addition to wild greens salad, pesto or soups. It was probably brought to the northeast by European immigrants as was the invasive garlic mustard. However, purple deadnettle is not on the New York State list of prohibited plants as is garlic mustard.

In the picture to the right, deadnettle has established itself next to raised beds in the vegetable garden. This occurred after the vegetable growing season. It also popped up across the gravel walkway next to the wire chicken run. Several frosts did not deter its' growth nor did a coating of snow. It can survive mild winters under the snow.

Deadnettle is an early spring bloomer helping provide energy for early pollinators. Bumble bees flock to the bright red-purple flowers. The pollen is a red color and can be very noticeable on the heads of bees. If there is an unused spot around the garden a bed of deadnettle will be welcomed by the bumbles

Purple deadnettle was also allowed to grow as a groundcover under weigela bushes last summer. It filled all the space under the shrubs while separated from the lawn by periodic edging. It had the appearance of a garden plan but was really benign neglect. A problem arose late in the season. It was time for *Colchicum autumnale* to push its' flower stalk up through the soil and blossom. This plant, also known as autumn crocus, meadow saffron or naked ladies, grows a 16 inch leafy plant in late spring that disappears over the summer. The crocus like flower appears in late summer. In order to give the delicate flowers the opportunity to make an appearance, we pulled all the dead nettle, creeping Charlie and purple violets that made the deep green groundcover over the summer. The *Colchicum* blossoms came through, looked great then disappeared after a short bloom time. Then the whole space under the weigela looked naked without the opportunistic green groundcover. We improved the appearance with a layer of pine bark mulch.

Next season the challenge will be to encourage the deadnettle, discourage the creeping Charlie and moderate the native purple violets. Creeping Charlie, (a.k.a., ground ivy), blossoms early and supports pollinators. However, it can take over the lawn. Purple violets are host for fritillary butterflies and mining bees, *Andrena violae*, a specialist pollinator common to the eastern United States.

What to pull and what to encourage? It's an ongoing challenge in the home landscape.

TEXT AND PHOTOS BY RICHARD DEMICK

Meet The 2021 Perennial Plant of the Year

Every year, The Perennial Plant Association announces their choice for the "Perennial Plant of the Year." The Association is made of people who are professionally involved in the herbaceous perennial plant industry. The award program began in 1990. This year, the award goes to *Calamintha nepeta spp. Nepeta* (common names, Calamint, Calaminta, Kalamint, Bassil Thyme, and Mountain Mint).

I can already see the red flags going up at the word "mint" in the name. It is considered an aromatic, perennial herb of the mint family. It is closely related to thyme and smells similar to peppermint. Being a member of the mint family doesn't make it all bad! *Calamintha* plays an important role as a pollinator plant. *Calamintha* is native to Great Britain, Europe and the Mediterranean area where it can be seen growing on dry, rocky soil. It will tolerate average garden soil just fine. It will not perform well in wet conditions.

There are several species of *Calamintha* and a few of them play nice in the garden. *Calamintha nepeta* is the most popular. The award winning sub-species, *Nepeta*, is reputed to have the most flowers. The flowers are white with a touch of blue.

Calamintha prefers full sun and well-drained soil. It will tolerate some partial shade but you will lose some of the fragrance. It is durable, pest free, and deer resistant. It flowers from summer through fall. *Calamintha* often becomes woody at the base. The plants can easily be cut back if they get overgrown. They will tolerate a hard pruning. If it gets a little ragged looking in late summer, you can shear it back to as much as half its size.

Calmintha nepeta ssp. Nepeta can be a good ground cover for a rock garden or a border. It can make an attractive, low-growing plant in the perennial garden.. It will attract bees and other pollinators to your garden. It's a good addition to a fragrance and/or a touch garden.

You may find some recommendations to plant this near the base of leggy plants such as *Echinacea* and tall asters. I don't recommend doing that because of the growth habit of *Calamintha*. It's woody and it spreads. You don't want to be whacking that back near your *Echinacea* or aster and accidently cut those. The birds and butterflies need those plants in the fall.

A good place to plant *Calamintha* is in full sun along the garden border. There you can brush against it to release the fragrance. It will be easy to maintain and you can shape it. In Europe, it is often planted along the edge of the garden paths. The picture below shows it spilling over a rock wall.

"Aromatic plants bestow
No spring fragrance when they grow
But crushed or trodden to the ground
Diffuse their balmy sweets around."

OLIVER GOLDSMITH

Text by Rensselaer County Master Gardener Carol Mastromarchi

Shot of Hope For Arrowwood

One of the original plantings in the Screen Garden at the Rensselaer County Master Gardener's Demonstration Garden was the shrub arrowwood. Its' proper name is *Viburnum dentatum*. It is native to the Eastern United States and Canada and found south to northern Florida and eastern Texas. The name arrowwood comes from the long, straight stems of the shrub thought to be used by Native Americans to make hunting arrows.

About 15 years ago, native species of viburnum were attacked by an invasive viburnum beetle originally from Eurasia, *Pyrrhalta viburni*. The native American cranberry bush, *Viburnum opulus*, and arrowwood were susceptible. When uncontrolled, the beetle killed the shrubs within one or two seasons.

The beetle is especially deadly because it feeds on the plant in both the larval and adult life stages. The beetle overwinters as eggs on stem tips. Larvae appear in May feeding on leaves into June then pupate in the soil. Adults emerge from the soil in late June and begin feeding on the leaves. The shrub takes a double hit during the growing season (see photo, top right). A lone American cranberry bush in the hedgerow along our backyard creek disappeared in one season. Berkshire Botanical Garden saw a 25 foot hedge decimated.

In order to avoid that fate in the Demonstration Garden, the arrowwood was removed and replaced with a viburnum not favored by the beetle, *Viburnum setigerum*, tea viburnum. The arrowwood was moved but not destroyed. It has struggled along for several years fending off the viburnum beetles. This past summer all the garden shrubs did very well. The arrowwood doubled in size. Application of neem oil with a hand-held spray bottle eliminated some of the larvae. The leaves did have the usual lacy look from larvae predation.

But it may not have been necessary to help the arrowwood with neem oil. The adult beetles returned later in the growing season. Walking up to the shrub with neem oil in hand, I found a new to me insect feeding on an adult viburnum beetle – the anchor stink bug with a viburnum beetle speared on its' proboscis. No need for neem oil. The anchor stink bug, *Stiretrus anchorago*, can be seen in different colors. The photo above was taken in the garden. A more mature stage with more white markings avoided the camera. It was very striking in color, nearly all white, and fast moving.

Researchers at Cornell say the populations of viburnum beetle are down significantly and it may be safe to again plant arrowwood viburnum. The plants will get some damage but nothing lethal. The beetle decline is likely due to predator insects and soil nematodes that have built up and found the viburnum beetle as a food source. According to the researcher *"This insect went through southern Canada about 30 years ago and they have experienced a similar situation. Now it's ok to plant susceptible species again just expect a little leaf feeding."*

The viburnum beetle lays eggs in late summer near the tips of stems. They chew small pits in the bark, deposit 5 to 8 eggs and cover the pits with chewed wood. To help control the beetle these egg cases should be cut off after a severe frost or during winter months and disposed in the trash or fire pit.

Spring 2021 could be an opportunity to bring *Viburnum dentatum*, arrowwood, back to the Demonstration Garden. Birds would enjoy the deep blue berries and they would complement the white berries of the grey dogwood.

Text and photos by Rensselaer County Master Gardener Richard Demick

Owls, Voles and Chicken Feed

I was very happy to see this visitor in the backyard in mid-November. I was at the kitchen counter preparing or cooking something about 10 in the morning. I looked up from my project and there was a barred owl sitting in the river birch tree about 50 feet across the yard.

I stopped what I was doing and ran for the camera. Thankfully the owl visitor waited for my return. I got a couple shots before it dropped off the branch in a long, low swoop heading for the neighbors' spruce trees.

The barred owl call, which I didn't hear, is said to sound like "Who Cooks For You? Who Cooks For You All?!" This is one of more than a dozen barred owl calls ranging from a "siren call" to a "wail" to a "monkey call".

We had seen signs of a "big bird" out back the past few weeks. One day it was seen dropping from an old white pine and sweeping up into the poplars in the wetland. Another day it flew from the back lawn followed by two small companions into the nearby woods. Seen from the back flying away it was a dark colored bird with large wings.

I haven't seen an owl in years. This was a real treat. It may also be the solution to clearing the lawn and garden beds of an explosion of voles, mice and moles. The vole tunnels can be seen running from the native border along the brook across the lawn into the catmint and lady's mantle perennial border. The steep lawn along Route 43 has conical piles of soil that look like mole excavations. There are spots in the lawn proper where your foot sinks as though stepping on a soft mattress. More vole activity?

Then the problem expands into the garden shed. Chicken feed is stored in plastic bins. An avant-garde chicken coop is attached to the shed. Three gasoline powered yard machines are stored in the shed. Today I started the snowblower and a cup full of oat seeds blew out of the muffler. Lifting up the garden tractor seat exposed another cache of seeds. The yellow bucket hanging from the ceiling used for oil change collection also contained oat seeds.

Oat seeds are in the scratch feed for the chickens. They prefer the cracked corn and don't eat the oat seeds. The mice are collecting the uneaten seeds from the chicken run or are getting them directly from the plastic bins. A trap was set but not strong enough to eliminate the seed savers. So, no human solution to the destructive rodent activity yet.

I'm hoping the barred owls will clear the lawn and garden beds of voles, mice, and moles. Traps, screen and weather stripping will help with the mouse invasion in the garden shed. Sorry to go the trap route but mouse damage to power equipment engines is costly to repair and if unnoticed can totally destroy a gasoline engine.

Text and photos by Master Gardener Richard Demick

Launching Potential

A new year and a packet of seeds: both are full of promise. This is what I think as I navigate around the four huge boxes of unsold seeds a large retailer gifted our Master Gardener group, which now sit in my office. Seeds of vegetables from A to Z and flowers of every color give a gardener the starry eyes of a Christmas morning kid with ribbons to untie and boxes to unwrap. And just about anyone can share in the magic of seeds. Author Sue Stuart-Smith writes, "Gardening is more accessible than other creative endeavors, such as painting and music, because you are halfway there before you start; the seed has all its potential within it – the gardener simply helps unlock it."

Some of these donated seeds are easy to grow, while others demand more coaxing. Seed packet verbiage gives clues how to begin. Something like "sow after all danger of frost has passed" means being patient until a dry, warm day in May, then heading outdoors with a shovel. Instructions will hopefully also reveal how deep to plant the seed and how far apart from its neighbor it should go. If planting in a row, some gardeners use two stakes and string to make a straight trench. Directions for planting squash and their kin call for planting on a "hill," which is just a slightly raised mound where you can install some seeds in a circular formation. Mel Bartholomew, who introduced the world to his "square foot gardening" method, encouraged growing vegetables in a grid pattern, and his books are well worth reading, especially if you grow in raised beds. Seed spacing is more important than your overall pattern, since seeds sown too closely will become overcrowded seedlings if the germination rate is high. While you can always thin them, by plucking out the extras and leaving a chosen few, doing your best to space properly reduces wastage and that guilty feeling of uprooting innocent creatures.

By walking outside and sticking a seed in the soil, you are participating in the "direct sowing" method. A wide variety of plants, from pumpkins and carrots to marigolds and zinnias, can be started this way. Most will desire full sun but will tolerate some shady times of the day. Most will prefer soil which drains well but still retains some moisture – something between beach sand and pottery clay. Checking the pH, adding compost and giving the soil some fertilizer are all things, as a professional horticulturist, I am supposed to direct you to do, with good reason, as generally the plants grow better. But sometimes professional advice can turn into obstacles, and I would much rather see people plant a garden and experience their results than get overwhelmed and stuck by too many rules at square one. You can always contact us at Extension if things go wonky.

If you work with a school or community group and need vegetable and flower seeds, email me at dhc3@cornell.edu and maybe we can help.

By David Chinery

"The days are short,
The sun a spark
Hung thin between
The dark and dark... ."

John Updike (1932-2009, American novelist, poet, short-story writer)

Gardening Questions?

Call The Master Gardeners!

During the COVID 19 Pandemic, our offices are closed to the public, but you are welcome to contact us as directed below.

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