Gardening Matters

Master Gardener
Cornell Cooperative Extension

Yates County Master Gardener Newsletter

Winter 2023, Issue 4

Inside this Issue

Executive Director's Note

Another growing season has come and gone.

If you are new to gardening, you may be ready to give up.

There are so many questions…so many things you do not know or understand.

But one season does not an expert make! Gardening is an individualized journey of learning and exploration. During planting season, we roll up our sleeves, get on our hands/knees and get in the dirt! Digging, mulching, composting, watering, and looking for harmful and beneficial insects are all part of the process.

Photo Credit: Robert Bogdan

Winter is your season for reading, writing, and research this year! Make a list of your questions and things you want to learn. Pull up your comfy chair, a nice hot cup of tea [or a long cool glass of water], and dig in—with a notebook, smartphone, or computer. Winter of 2021 mission: I learned what I didn't know about the raspberries I planted to harvest more than **half a cup of berries** from six plants.

So, I watched gardening shows on YouTube and PBS. I looked and learned from the beginner's garden guides, the advanced berry experts, the organic growers, the berry bug police, and those in between. Each has a unique and different perspective on staking, harvesting, fertilizing, and even children playing in a berry patch. Some were useful, and some were not. (My personalized notes began to coalesce.)

I read gardening newsletters from Cooperative Extension (other counties, other states) gardening magazines and learned about pruning/draping canes (in English and Spanish), strategies on how often to harvest (to outcompete the ants), watering methods during high temperature/heat season. Some were useful, and some were not. (My personalized notes were condensed and had an order for operations and a timeline.)

I chatted with other Master Gardeners and observed different berry batches (the Penn Yan Community Garden, wild berries, friends) and compared that information with my observations from the 2022 growing season.

Results: eight cups of berries from six plants.

So, the 2022 growing season is complete—and there are still more questions. And I am fine with that—I have several new boxes of tea and quilts ready for the digging into reading and social media watching on gardening.

I encourage the same for you!

Sincerely,

Arlene A. Wilson

Executive Director & Master Gardener
Cornell Cooperative Extension of Yates County

Front Cover Photo Credits (Top to Bottom): Frosty Flower (Nina Gaisch), White Crowned Sparrow (Michael Klotz), Austrian Pine (Cornell Botanical Gardens), Witch hazel Flower (Doug McAbee)

Garden Chat:

Catching up w/ the Yates County Master Gardeners!

With the long, warm fall, what surprises did your garden have in store for you?

Beverly

For me, my Swiss chard came back with a strong 2nd crop. Truly enjoyed that and will again from my freezer.🤗

Caroline

The size some of my plants that I usually only grow as annuals got by the end of the summer was impressive! The extra few weeks of growing made a huge difference. I was also surprised to still be watering in the garden into November!

Michelle

My Kale is still growing and producing beautiful variegated foliage. I used it in my fall centerpiece arrangement.

Arlene

1. Raspberries into mid-November!! (I need to focus any berry vine expansion on the varietals that bloom later in the year.)
2. The need to have two distinct planting times: Memorial Day weekend (standard) and July 4th weekend (for Southern zone produce such as okra, eggplant and callaloo).

Cheryl

The extended warm weather provided cutting flowers from a mum plant that I could give a friend who took care of my goats when we were away on vacation.

Have a gardening question?

Contact us at 315-536-5123, or stop by the CCE-Yates County office!

What to do in...

January

* Winter's combination of low light intensity and short-day length will usually bring houseplant growth to a halt without supplemental light of some sort. Although the plants may not be growing, pests such as scale and aphids may still increase. Check your plants regularly for growing pest issues and treat them promptly.
* With our inconsistent winter weather and more frequent warm spells, mulching marginally hardy plants is more important than ever to prevent growth starting up too early in the year. Make sure to check on mulched plants regularly to make sure the mulch is still in place.
* Check on any stored bulbs and tubers such as Cannas and Dahlias and remove any rotten or shrunken specimens.
* Want to grow a few fruit trees? This is a great time to order bareroot trees. Bareroot trees are easier to plant than containerized specimens. Although they look small, they grow fast and can adapt quickly to local soil conditions.

February

* Do a late-winter garden inventory. Look at your garden without the benefit of leaves and flowers to evaluate the bones. Think about where you'd like to more height, winter interest or structure. Begin to build a "wish list" of plants or hardscaping to fill those roles.
* Looking for a little winter garden inspiration? Take a trip to visit the Cornell Mullestein Winter Garden. The garden contains over 700 plants selected for their winter beauty. For more information, visit: https://bit.ly/3WPTtsx
* Think you may need some garden help this summer? Contact landscapers now to get on their schedule for the growing season.

March

* Craving some early-season color? Branches of pussywillow, quince, forsythia and other early blooming shrubs can be cut and forced into bloom indoors. Cut the branches and put them in a bucket with clean water, changing the water once a week until they bloom. Top tip: cut new branches every two weeks to keep the floral display going until the garden wakes up for spring.
* Don't start tomatoes, peppers and eggplants just yet. They'll get tall and lanky well before it's safe to put them outside. Excited to get growing? Try seeding parsley, leeks and onions. These are very slow growers and can be started in March. Bonus: starting from seed means you can experiment with varieties you normally can't buy as starts or transplants!

Pictured (Top to Bottom): Bird's Nest Spruce, Mullestein Winter Garden (Alec Frazier), Forsythia (Rachel Glaves)

Yates County Master Gardener's Corner

Cheryl Flynn (Master Gardener Volunteer Coordinator)

It was a busy summer, and we were sad to put our gardens to bed for the winter. We will look forward to spring planning and planting the garden. Next year's Cornell Vegetable Variety Trial Gardens theme will be "Cultural Roots of Eastern Asia."We are excited to try out some new-to-us varieties. The Master Gardeners grew 280 pounds of produce which we donated to the Hope Food Pantry (190 lbs) and Milly's Pantry (90 lbs). We genuinely appreciate the Penn Yan Community Garden for hosting the Master Gardener Beds, which allows us to give back to our community! Are you interested in learning more about the Penn Yan Community Garden? Please visit https://bit.ly/pygarden to learn more about the history of the garden and how to become a member!

We also made time for fun, educational field trips! Celeste Lewis, Bev Barnwell, and I attended Cornell Ag In-Service on Friday, November 18th. The topics included sustainable weed management in the garden, inspirational program sharing across the NYS Master Gardener Program, and creative container and small space gardening for vegetables and herbs. It was an inspirational, educational opportunity that we shared with fellow Master Gardener volunteers and colleagues across the state.

On Saturday, December 3rd, the Arts Center of Yates County held a wreath workshop for the second year. Master Gardener Michelle Buschner led the class and showed how to use fresh greens and other natural decorative objects to create a unique holiday wreath.

I want to thank all the Master Gardener Volunteers. As always, our hard work was made more accessible by the willing hands and great attitudes of our small but mighty Master Gardener volunteers! We have three new volunteers that will be taking the training in the fall of 2023. If you are interested in joining the Master Gardeners, please email me at cj348@cornell.edu or call (315) 536-5123

I would also like to thank Executive Director Arlene Wilson and Caroline Boutard-Hunt, Agriculture and Horticultural Educator, for their dedication and support of our Master Gardener Volunteers Program. I wish all of you the happiest and joy throughout the holiday season! See you next year in the garden!

Pictured (Top to Bottom): Penn Yan Community Garden, Cornell Ag-In-Service, Holiday Wreath Workshop)

Starting Native Plants from Seed– One Gardener's Experience

Caroline Boutard-Hunt (CCE-Yates County Ag Educator)

Pictured: Agastache seedlings
Photo Credit: Erutuon cc Flickr

I started growing native plants from seed a couple of years ago for the Master Gardener Native Plants for Pollinators sale. It's been a learning experience with some notable successes and failures. Starting native plants from seed is a great way to incorporate less common native perennials into your garden.

Many native plants produce seeds finely tuned to the seasons, particularly the earliest blooming wildflowers. They have complex biological systems to prevent the seeds from germinating too early or all at once. Why make it so difficult for seeds to germinate? The goal of any wild plant is the survival of the next generation. Staggering germination, even by years, gives the best chance for at least some of the seedlings to survive adverse conditions such as a dry summer. We need to work with the plants' natural systems to maximize the number of seedlings germinating. Sometimes this means mimicking seasonal weather patterns, soaking the seed to soften the seed coat, or even nicking the seed coat with coarse sandpaper or a knife to allow water to enter the seed and stimulate consistent germination.

Many native plants need a cold period to imitate the seasonal winter/spring cycle. This is called stratification. Some species are easier to germinate than others. For example, Agastache must go through a 60-day cold-moist period, which is fairly easy to accomplish. On the other hand, Trillium, one of the most stunning spring bloomers, requires a cold -moist period, followed by a warm period, another cold-moist period then warm again for the seeds to break dormancy. In the wild, this process takes about two years. Starting the seeds yourself, you can condense the stratification process down to about nine months, but it is still not exactly a quick process!

Native seed producers are happy to share how to get various native plants to germinate. As if you were following a complex cake recipe, it's essential to follow the instructions on the packet precisely for the best success.

Easiest method: put them outside!

Why go through a complex procedure to convince the seeds they've gone through winter when you can just let them experience the real thing? In the fall, you can plant your seeds in a raised bed or flats filled with potting mix. Cover the flats with window screening or hardware cloth to prevent exploratory digging if you have a lot of squirrel pressure.

I've also had luck seeding in the fall and keeping the flats in our unheated garage. I covered each flat with a piece of Saran Wrap to help reduce moisture loss. I also checked the flats regularly to ensure they stayed dry. The biggest downside is the amount of room this project requires. All in all, taking advantage of our natural cold period makes the process much simpler. When days grew noticeably longer, and I began to notice shoots pushing up through the soil, I moved my flats from the garage to an unheated greenhouse. If your plants are outside, they'll be fine and adapt to cooler conditions. In the case of an unexpected cold snap, you can cover them with a piece of landscape fabric to prevent overnight frost damage.

Pictured: Trillium Seedlings
Photo Credit: William Cullina cc Flickr

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Starting Native Plants from Seed– One Gardener's Experience

You can set up a seed germination bed to start your native seeds outdoors. This gives you the advantage of a larger space requiring less watering and allowing the plants to grow larger before you need to transplant them. Below are instructions from the Wild Garden Seed Project on how to build a seed germination bed:

Choose a location in full to part shade for woodland species and part shade for most other species, except for full sun for plants that need dry, sunny conditions. Make a frame out of rough-cut 2" x 10" or 2" x 12" lumber (not pressure treated, as it releases too many nasty chemicals). A four-foot-wide by ten-foot-long bed will hold a lot of seedlings for several years. You can also use logs that are 6 – 10" in diameter. Staple some heavy-gauge screening to the bottom, flip it over, and set it in place. Fill with a weed-free compost-based potting mix. You can create your growing medium by mixing three parts weed-free compost or leaf mold, one part vermiculite, and one part coarse builders' sand. The compost and leaf mold will contain many beneficial microorganisms and slowly release nutrients over time, unlike peat moss-based potting soil, which is sterile and deprived of nutrients.

Seeds can be sown in 4' rows across this bed and marked with long-lasting plastic labels. If there is a nearby source of weeds, such as an old field or dandelion-strewn lawn, cover the bed with Reemay.

Second method: Start them in your fridge

This is the method I'm trying this year, following instructions I received with my seed order from Prairie Moon Nursery. I rinsed my seeds and drained them into a coffee filter placed inside a fine strainer. I allowed the excess water to drain, then moved the seeds around, so they were in a single layer on the filter. I folded the filter in quarters and placed it into a Ziploc bag containing a dry folded paper towel. The paper towel should help regulate the moisture in the bag to prevent the seeds from rotting. I recorded the following information on the front of the bag: plant species, date started, stratification days needed, and estimated removal date. I also made sure the removal dates were entered in my phone calendar so I remember them! I popped the bags into a refrigerator drawer. I plan to check the bags weekly to see adequate moisture. If this method is a success, it will allow me to start a wider variety of seeds without taking up the whole garage.

You can also mix the seeds with damp sand or perlite, place them in small flats, and then put them inside plastic bags in the fridge for the recommended cold stratification period.

Once stratification is over, follow the planting instructions. Some of the smaller seeded perennials require light to germinate, so they must be planted on the soil surface. If you need to know precisely how deep to plant a seed, an excellent general guideline is to plant it two times as deep as the seed's width.

A couple of final thoughts:

Be very patient during the germination period. Even following the directions exactly, you may notice staggered germination. Just keep caring for the flats; you may see seedlings pop up weeks or months later than expected.

Realize that your first attempt may fail to be successful. Starting native plants from seed is incredibly challenging and fun, but there is a steep learning curve. Nothing beats the accomplishment of looking out at your garden and seeing beautiful, uncommon native perennials you have known since they were a seed.

Resources:

* Prairie Moon has an excellent guide for starting seeds: https://bit.ly/3vCUZTo
* The Wild Seed Project also has a very in-depth guide available: https://bit.ly/3IqV5VR
* Rutgers University has good instructions on seed collection and propagation: https://bit.ly/3VMZN3g

Using Your Kitchen Scraps for Fun Winter Gardening

Karen Welch (Master Gardener Volunteer)

Many of the vegetable and fruit remains from the kitchen that you might normally throw away or into your compost bin can be fun and educational learning experiences for your child. Sprouting vegetables or fruits from your cooking remains in the winter can be great fun for children. You can call it "trash" gardening! While they enjoy watching something grow that they planted, they will also learn about sunlight and water's role in growing plants. If you are not already composting your kitchen remains, you can certainly incorporate that into the experience.

There are many options when it comes to “trash” gardening. Some easy and fun-to-watch projects are starting an avocado tree and growing carrots, beets, and celery from their base.

To start an avocado tree, you will need the following:

* Several avocado seeds. They often don’t all sprout, so it is good to start with a few.
* Toothpicks
* Several glasses of water
* A sunny location

When removing the seed from the avocado, wash it thoroughly to get all the green meat off the seed. Don’t let the seed dry out. After you clean it, insert three toothpicks into the sides so it can suspend above a glass of water. About 1/3 of the seed needs to be suspended in the water. Make sure the broader end of the avocado seed is the part that is submerged. Put the glass in a sunny window and change the water every few days to prevent the water from getting slimy. In about two weeks, the seeds should split in half, and roots will start to emerge from the bottom. If this doesn't happen in 3 weeks for any of your seeds, throw them out. In a couple of months, the roots will fill your glass, and you can then transplant your avocado plant to a pot of about 8 inches in diameter using regular potting soil. Drainage holes in the pot are necessary because avocado plants prefer not to stay too wet. Position the seed in the soil with 1/3 of the seed above the soil. Feed your plant monthly. It is unlikely you will get any avocado fruits from your plant as it takes 7-10 years until they are ready to produce fruit.

Celery is another interesting and easy plant to grow from the end of your celery you may have bought from the store or grown in your garden. If you try this about three weeks before the last frost in your area (depending on what zone you are in), you can transplant your rooted celery right into the garden or into a pot for the outdoors.

To start a celery plant, you will need the following:

* the cut end of a celery plant
* a shallow bowl
* a sunny location

Start with cutting across the bottom of a celery plant about 2-3 inches above the base. Rinse the stub off this base and place it in a shallow bowl of water. Change the water in the bowl about every two days. The outer portion may dry and shrivel, and that is normal. After about a week, you will notice that the inner part will begin to show evidence of growth. When you see some roots emerge from the bottom, the celery is ready to plant in the garden or in a pot. Plant it so that about an inch of soil covers the base. It takes about three months for the celery to mature in the garden.

Pictured: Avocado Seedling
Photo Credit: Mannewar (Flickr)

Photo Credit: Vanessa Greaves

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Using Your Kitchen Scraps for Fun Winter Gardening

The base of carrots can be planted indoors for their pretty, fern-like foliage. The ends will even produce pretty, white lacy flowers! Make sure your child understands that these roots will not grow into a carrot, just a lovely plant.

To start a carrot plant, you will need the following:

* carrots
* a shallow bowl
* a sunny location

Start with you or your child cutting the carrot about 1 inch from the top. Float the top in the shallow bowl with some water in it. Make sure the water does not cover the top of the carrot. Change the water every 2 -3 days. After it begins to sprout on top and develops some roots on the part submerged in the water, you can plant it in a pot filled with potting soil. It will be pretty if you do this with a few carrots, as they will grow and develop some flowers. Keep in a sunny location. Be sure to remind your child this will not produce carrots. Some people do use this method to get carrot seeds, but this may be a bit much for a young child. Following up in the spring with planting some carrot seeds directly into the garden will be a good follow-up for this activity.

Have fun with your child with these winter gardening activities!

References

* Baley, Anne. (Date unknown). “Garden Project During Winter: Winter Gardening Activities for Children”(online). https://bit.ly/3ZbsLfT
* Rhodes, Jackie. (Date unknown). “Grow Carrots from Carrots-Sprouting Carrot Tops With Kids” (online). https://bit.ly/3X6WF35
* The Ripe Tomato Farms. (2020). “How to Regrow Celery from Celery ." https://youtu.be/TLVE0jS_ug4
* Sansone, Arricca Elin (1/11/2022). “How to Grow an Avocado Tree from the Pit” (online). https://bit.ly/3VWuH9u

A Late-Harvest Recipe

4 bulbs of garlic

1/2 chopped onion

Kosher salt

Ground pepper

4 cups chicken or vegetable broth

8 oz fried bacon or pancetta

1 cup heavy cream

3 cups chopped greens (I used choy sum, pictured right)

Steps:

1. Roast garlic at 350°C by trimming tops and sprinkling with olive oil and salt and wrapping in foil.
2. Fry bacon or pancetta until crisp. Set aside
3. Use residual fat to fry onions.
4. Add roasted garlic and broth to onions.
5. Cook for 5 minutes then blend until smooth.
6. Add greens and cook until tender.
7. Add heavy cream, heat through and serve with a sprinkle of cooked bacon or pancetta

Recipe by: Christine Vojt, Master Gardener

Art and Ornamentation in the Garden: Home

The New York Botanical Garden

Garden ornaments can provide direction, movement and space
Photo courtesy of Flickr cc/ Herry Lawson

Experimenting with art and ornamentation is a wonderful way to decorate your garden and ornaments serve multiple purposes. They can be highly functional, used as bird baths and feeders, benches, or even scarecrows. By acting as a focal point or creating an illusion of depth, garden ornaments can provide direction, movement and space. While they are often instrumental in designing garden scenes and rooms, other times they are simply a personal decorative accent.

Let's explore a number of ways to effectively combine art and nature to embellish any garden setting. Decorative elements in the garden can range from an antique table to newly collected seashells. It's important to consider how an object relates to the landscape and what it adds to the scene.

A Japanese stone water basin - chozubachi (tall) or tsukubai (small) - enhances a shady, woodland corner, while a lanky scarecrow is best placed in the vegetable garden. Sundials and armillary spheres complement traditional herb gardens and formal perennial borders, while bamboo tepees and seashells are well suited for cottage gardens and informal plantings.

In the struggle to find the right balance between deciduous and evergreen material, garden ornaments add multi-seasonal interest and structure. When used effectively, ornaments add a sense of permanence and stability. They also provide wonderful contrasts, juxtaposing smooth metal, rough stone and muted terra-cotta surfaces with feathery and flat foliage, and act as a fantastic foil for garden plants.

In the NYBG perennial garden, we have an enormous, terra-cotta urn that acts as a focal point at the end of a long path. Adjacent to the urn is a large swath of astilbe. Its fluffy, pale, pink plumes contrast beautifully with the smooth surface of the urn, creating an eye-catching scene through elegant simplicity.

Ornaments also provide destinations in the garden, guiding us from one point to another, literally leading us down a path. A statue or an urn placed in a shady border can create a sense of depth by leading the eye into the bed. Ornaments can also be effectively used to frame views. Think of how a well-placed trellis highlights scrambling vines or how containers accentuate their contents.

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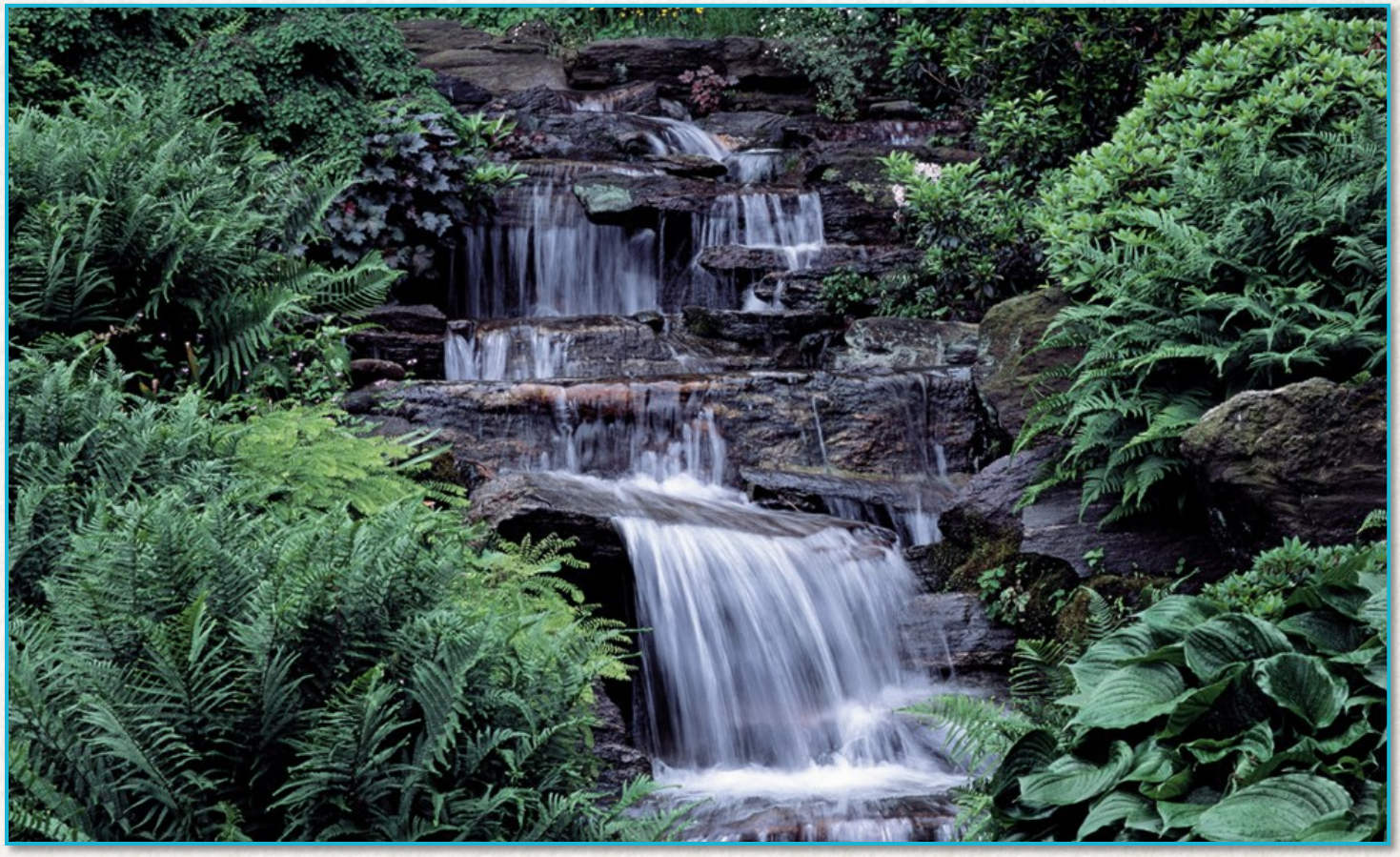
Arches, Arbors and Pergolas

Arches, arbors and pergolas are overhead structures that create a sense of enclosure. They provide shade and shelter and form rooms or tunnels to move from one space to another. They also add height by introducing a strong vertical element. Arches have rounded tops; pergolas tend to be flat on the tops; and arbors can take on many shapes and usually include seating underneath the structure. They all have openwork roofs that can support plants and are commonly made of either wood or metal.



Waterfalls creates a focal point in the NYBG Rock Garden

Water Features

Water features include ponds, fountains, and bird baths. Swimming pools can also be designed and integrated into the garden setting with well-chosen paving stones and plantings. Streams can be highlighted by building wooden or metal bridges. Stepping stones are another creative alternative.

Stones

While rock outcrops are instrumental in rock gardens with small alpine plants distributed through the nooks and crannies and are imperative in creating tension and solemn stillness in a Japanese garden, they can also play other roles. Large rocks demarcate space and instill solitude in a woodland garden while they add a nice basking site for butterflies in a sun-filled garden. Rock features can have a natural feel or can be carved and sanded for a more sculpted effect.

Statuary

Statuary can be old or new creating a sense of history or place. It can be subtle and refined or bold and innovative. Statuary is made in a vast array of materials from bronze and cast iron to stone and marble and many synthetic materials. Price and aesthetics must also be considered. Statuary includes sculptures, urns, wall plaques, obelisks, tuteurs (fancy tepees) and armillary spheres.

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Art and Ornamentation in the Garden: Home

The New York Botanical Garden

Tuteur in NYBG Perennial Garden

Furnishings

Garden furniture plays an important role in decorating the garden scenes. It creates places for rest and congregation, often setting a mood. Garden furniture can be made from many materials ranging from cast and wrought iron to solid teak, plastic and fiberglass. It can be inventive and fun; a comfortable hammock can be the most sought after spot in a garden.

Pots and Containers

Pots and containers can be important decorative elements in the garden portrait. Made of stone, wood, terra-cotta, faux terra-cotta (poly-resin) and ceramic, to name a few, containers fill in empty terrace corners or add height and focal points.

Buildings, Structures and Paths

Tree houses, sheds, greenhouses and gazebos are structures commonly used in a garden. Even play equipment, such as sand boxes and swing sets, can be effectively integrated into the landscape. Paths can also be integral decorative elements. Gravel paths complement dry gardens and xeriscaping; and stone paths, simple or ornate, enhance a multitude of garden designs.

Trellises

Trellises are vertical structures for supporting and displaying plants effectively screening a wall or fence. Free-standing trellises are often used to support espaliers of fruit trees. Trellises are ideal for growing vines, whether perennials, such as rose (*Rosa*) and honeysuckle (*Lonicera sempervirens*), or annuals, such as scarlet runner bean (*Phaseolus coccineus*) or purple hyacinth bean (*Lablab purpureus*).

Sourced from: https://libguides.nybg.org/artandornamentation

Pruning Peach Trees

Beverly Barnwell (Yates County Master Gardener)

At my childhood home in Niagara County, we had a wonderful garden full of vegetables and fruits such as strawberries, raspberries, peaches, and rhubarb. To me, peaches were the true jewels of summer. Nothing is better than a warm, freshly picked peach for a summer afternoon snack. Their season can be later than many other summer fruits. Depending on their variety, harvest can extend into mid-September, gracefully bridging the gap between summer and autumn fruit. I never truly appreciated access to the bounty in my backyard until many years after I had moved away.

Photo Credit: Peach Jackson Orchard

Our peach tree was planted in the southwest corner of the garden, easily accessible at all times of the year. My dad would prune the tree in late winter to prepare it for fruit the following year. Peaches bear fruit on wood grown during the prior year. Pruning helps stimulate new growth the next summer, leading to increased fruit production the following year. As a kid, I didn't understand the concept of fruit-bearing on second-year wood. But I did understand that pruning was a critical step in maintaining tree health and supporting sustainable harvests year after year. Here are some tips on how to best prune your peach trees in early spring. Plan on pruning in late winter or early spring before the budbreak, ideally during cool, dry weather.

Photo Credit: North Caroline State University

1. If this is the first winter after planting, choose the 3 to 5 healthiest branches that form a "V" or vase shape. None of the branches forming the "V" should form a 45-degree or larger angle with the trunk. Remove any branches 20 inches or less from the tree's base. Peach trees mature rapidly, and it's important to establish a good framework early on.
2. When pruning older trees, aim for 10 o'clock or 2 o'clock crotch angles. A narrower angle can cause the branches to break off under heavy fruit load.
3. Ensure branches are evenly spread around the tree and at least 6 inches apart.
4. Prune any damaged, dead, or diseased branches on the tree.
5. Remove any branches that are crossed. These can rub on each other during windy days and cause damage where disease can get in.
6. Remove all the sucker shoots that appear at the base of the tree.
7. If you have a branch that has no new growth, remove it. Older growth can be identified by grey bark, while new growth is reddish in appearance.

Need a little help? Check out the resources below for more information on peach tree maintenance. Or contact your local extension office. Our CCE Yates Horticultural and Agricultural Educator is happy to do at-home demonstrations or help walk you through the process. Good pruning will help ensure the continued supply of homegrown peaches for years to come.

Sources and Resources:

* Penn State Extension, Peach Tree Pruning- Managing Light and Crop Load: https://bit.ly/3GHTxFt
* Cornell Garden-Based Learning-Growing Fruit: https://bit.ly/3CqI0I1
* Cornell Guide to Growing Fruit at Home: https://bit.ly/3Cu6TCL (visit the link to download the guide or contact Caroline at cb239@cornell.edu to receive a copy via regular mail or email)
* Virginia Tech: Pruning Peach Trees: https://bit.ly/3VQ09pN

Native Spring Ephemerals

Mariellé Anzelone (Brooklyn Botanic Garden)

A walk in the woods in early spring is an optimistic activity. What I hope to find are wildflowers, but my rewards are often tawny, shriveled stems—the remains of last fall's flora. If I'm lucky (more accurately, if it's early April and warm), I'll find the blossoms of Dutchman's breeches (*Dicentra cucullaria*). These flowers are funny looking, distinctive floral pantaloons, creamy white with yellow trim. They dangle above feathery sage-green foliage that grows in mounded colonies. This unique wildflower has a short aboveground presence—it blooms, sets seed, and dies back before the trees overhead block the sunlight with their leaves.

By June, the plant has utterly disappeared. In botanical parlance it's a "spring ephemeral." Other plants share this strategy: spring beauty, trout lily, trillium, Virginia bluebell, toothwort, rue anemone. These species have a small window of sunshine between snowmelt and leaf-out in which to grow, flower, be pollinated, and produce seeds. By mid-June the deciduous trees that tower above have cloaked the forest floor in deep shade. Spring ephemerals disappear in the heat of the summer, retreating underground until next year.

Found throughout the eastern United States and Canada, spring ephemerals thrive on the floor of rich, undisturbed woodlands. This verdant, moist environment is the ideal site for myrmecochory, seed dispersal by ants. The seeds of spring ephemerals bear fatty external appendages called eliaosomes. The insects, attracted to the elaiosomes, carry the booty back to their nests, where the lipid-rich food source is consumed by their young. The unharmed seeds are thrown into a midden, a rich, composting stew that stimulates germination. A single ant colony may collect as many as a thousand seeds over a season. While the volume is great, the distance is not; on average, a seed is carried just two meters from the parent plant. Because offspring remain so local (unlike plants dispersed by birds or wind), habitat fragmentation is a major threat to the survival of spring ephemerals. Once these plants are gone from the forest, it is rare that they return.

Of course, to have fruits, you need flowers. From a woodland walker's vantage point, this is where spring ephemerals shine.

A Tour of Native Vernal Bloomers

One of the earliest flowers is rue anemone. Formerly named *Anemonella thalictroides*, the taxonomy has changed and it is now *Thalictrum thalictroides*— meaning meadow rue–like meadow rue. Silly Latin names aside, it is a lovely find during a walk in the woods. Diminutive in stature, its flowers are whorls of white petals above delicate, divided foliage.

White wake-robin (*Trillium grandiflorum*) takes seven long years to journey from seed to flower. Then one spring as we thrill to hear the robin's call, the wait is over; the plant carpets the forest floor with flowers. Showy, three-petaled blossoms of white (turning pink with age) rise above the leaf litter on single stems, highlighted by three green leaflike bracts.

Virginia bluebell (Mertensia virginica) buds and blossom Photo by Uli Lorimer.

If your woodland rambles include floodplains, you may encounter colonies of Virginia bluebells (*Mertensia virginica*). Soft magenta flower buds open as tubular blossoms of an enchanting sky blue. The color is so rare and so exquisite that you may find it difficult to stifle a "barbaric yawp" worthy of Walt Whitman.

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Trout lily (*Erythronium americanum*) gained its fishy moniker from the resemblance of its fleshy, mottled leaves to brook trout. Intermittently presiding over these leaves are golden-yellow bell-shaped flowers. Large colonies may be over 100 years old, often older than the surrounding trees.

Spring beauty (*Claytonia virginica*) has delicate small white blooms with pink venation that follow the sun. It only grows about six inches high, but that's tall enough to be found by the insects it depends on for pollination. In fact, the solitary bee *Andrena erigeniae* makes spring beauty its exclusive goal. Trout lilies too have an andrenid specialist pollinator, the trout lily bee (*Andrena erythronii*).

Important Pollinators

Bumble bees (*Bombus* species) are vital to the success of many spring ephemerals. In fact, the reproductive success of Dutchman's breeches utterly depends upon bumble bee queens, which feed their larvae the nectar and pollen produced by these and other wildflowers when early-spring food sources are scarce. The young bees emerge as workers that pollinate other plants later in the season. Some *Bombus* species even choose their nesting sites relative to the abundance of early-spring ephemerals.

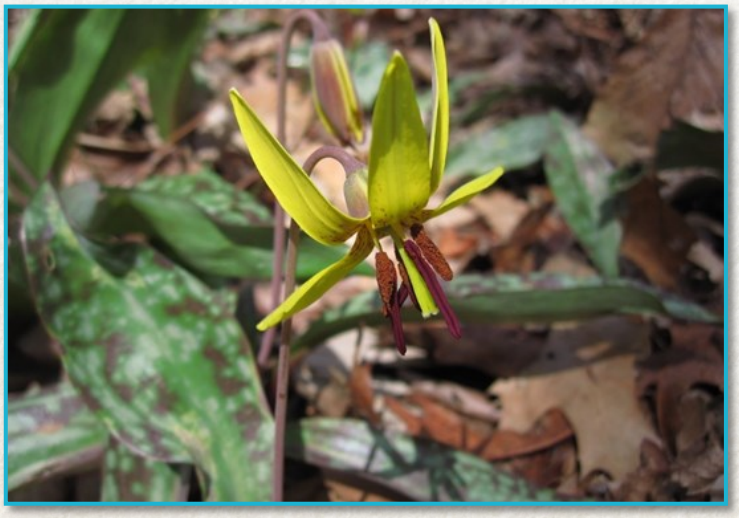
There are other floral visitors that aid in pollination, including bee flies (especially *Bombylius major*), halictid bees (including green metallic bees), and muscid and syrphid flies. Less often, butterflies and skippers linger on the flowers. Despite their ubiquity and abundance, exotic honey bees (*Apis mellifera*) are not very effective pollinators. They may even disrupt ecological relationships between native insects and spring ephemerals.

Threats to Natives

In the best of times, spring ephemerals face a number of obstacles to pollination, including a short blooming season, pollinator sharing due to overlap in flowering times, and inclement weather that interrupts insect activity. Human activity, overpopulation of herbivores like deer, and other threats add to their fragility. Although secure throughout most of their ranges, spring ephemerals are declining in urbanized areas. As late-successional species, they may require as many as 20 years after a disturbance to reappear.

One of the biggest threats to our native spring wildflowers is posed by exotic plants. Lesser celandine (*Ranunculus ficaria*) is also a spring ephemeral, but one that hails from Eurasia. It emerges earlier than our native vernal herbs, shielding them from much needed early April sunlight and competing for resources. Norway maple (*Acer platanoides*) is also a problem. In addition to its root toxins, its earlier leaf emergence allows less time for the wildflowers to complete their above-ground life cycle.

Invasive plants may do more than poison and compete for sunlight; they can also disrupt ecological relationships. For example, the native cut-leaf toothwort (*Cardamine concatenata*) is close kin to the exotic invasive garlic mustard (*Alliaria petiolata*). The food source for caterpillars of the rare West Virginia white butterfly is limited to native toothworts. Chemical cues induce the butterfly to mistakenly lay its eggs on garlic mustard. The unsuspecting larvae feed on the exotic leaves, and most die. Aggressive and prolific, garlic mustard muscles out the toothwort and makes it difficult for the butterfly to locate its vital host plant.



Erythronium americanum blooms in the Native Flora Garden. Photo by Rebecca Bullene.

Spring beauty (Claytonia virginica) in the Native Flora Garden. Photo by Uli Lorimer.

Continued on Page 19

Native Spring Ephemerals

The beauty of spring ephemerals can be a detriment to their survival. People often pick the flowers or harvest wild plants, disturbing or killing the slow-growing rootstocks. To make matters worse, unscrupulous poachers commonly steal entire patches of bluebells, trilliums, and other spring ephemerals from the wild to feed the demand for them in the horticultural trade. The loss of these wildflowers is deeply felt within the woodland. Despite their seasonal presence, the species play a critical role in the forest ecosystem. They stabilize soils, contribute important nutrients, and sustain native bee populations.

To ensure their future in our forests, be careful to purchase native plants from reputable sources that state “nursery propagated” and not merely “nursery grown.” (Because of their exacting moisture requirements, seeds are harder to work with and are not recommended for beginners). If your garden grades into a woodland behind your home, choose nurseries closer to home to bolster conservation of local genetic ecotypes.

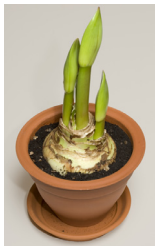
Caring for Spring Ephemerals

To enjoy these spring wildflowers in your garden, site them in well-drained acidic soil in dappled sunlight (not deep shade). Plant the rootstock of young plants two to three inches deep. Over time, they will grow as much as six inches into the soil. Be sure to handle the corms carefully, since root damage typically stunts the plants, requiring more time for them to establish. The soil must be kept moist throughout the spring. Corms can withstand summer drought but must have some moisture in fall for root growth. Roots and shoots begin to develop after 90 to 120 days of dormancy. Cold stops further growth until spring.

Annual maintenance requirements are few. To conserve moisture, mulch in the fall or very early spring using finely shredded leaves. (Larger leaves may create mats that prevent plants from emerging.) Fertilizer can be applied just as flower buds begin to appear to encourage a bigger and longer floral display. Older plants in your garden can be divided in early fall. Carefully dig the plants and cut the corm so that each small piece to be replanted has roots and new growth. Some spring ephemerals like trout lily grow obvious bulblike offsets that are easy to break off and plant. Place a wooden or metal marker next to spring growth to help locate plants after dieback.

Trillium grandiflorum.
Photo by Uli Lorimer

Article Source: Brooklyn Botanic Garden https://www.bbg.org/gardening/article/native_spring_ephemerals



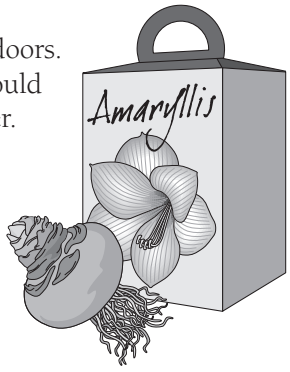
Growing Amaryllis

Amaryllis are popular flowering bulbs grown indoors during the winter months. Their spectacular, trumpet-shaped blooms can be 8 to 10 inches across and are produced atop an 18- to 30-inch-tall flower stalk. Flower colors include red, pink, orange, salmon, white, and bicolors. Single-flowering, double flowering, and miniature amaryllis varieties (cultivars) are available. Two to six flowers (the average is four) are produced on each flower stalk.

Although their flowers resemble lilies, the amaryllis belongs to the Amaryllidaceae family. Its genus is *Hippeastrum*. Amaryllis are native to tropical and subtropical areas of the Americas. Both the bulb and the plant are poisonous.

Forcing amaryllis

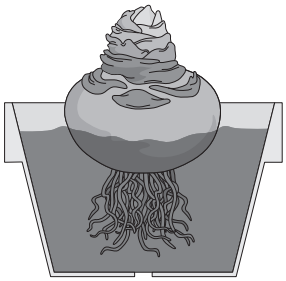
Amaryllis bulbs are easy to force indoors. Bulbs potted in early November should be in bloom by the end of December. Amaryllis bulbs can be purchased pre-planted in pots or unpotted. When purchasing amaryllis, select large, solid bulbs that show no sign of shriveling or decay. The largest bulbs often produce 2 flower stalks.



When planting an amaryllis bulb, select a pot that is approximately 1 to 2 inches wider than the diameter of the bulb. The container may be clay, ceramic, or plastic, but should have drainage holes in the bottom. Plant the bulb in good, well-drained potting soil. Add a small amount of potting soil in the bottom of the pot. Center the bulb atop the soil in the middle of the pot. Then add additional potting soil, firming it around the roots and bulb.

When finished potting, the upper one-half of the bulb should remain above the soil surface. Also leave about one inch between the soil surface and the pot's rim. Water the soil thoroughly with lukewarm water and place in a warm (70° to 75°F) location.

Check the pot before watering a pre-planted amaryllis bulb. If the container doesn't have drainage holes, remove the bulb. Drill small holes in the bottom of the container and replant or transfer the bulb to a pot with drainage holes.



After the initial watering, allow the soil to dry somewhat before watering again. Keep the soil moist, but not wet. Don't overwater; once per week is usually adequate.

When growth appears, move the plant to a sunny window and fertilize every 2 to 4 weeks with a dilute fertilizer solution. During flower stalk elongation, turn the pot each day to keep the flower stalk growing straight. Flower stalks that lean badly will likely require staking.

Flowering usually occurs about 6 to 8 weeks after potting. When the amaryllis begins to bloom, move the plant to a slightly cooler (65° to 70°F) location that doesn't receive direct sun to prolong the life of the flowers.

Care after flowering

After the flowers fade, use a sharp knife to cut off the flower stalk about one to two inches above the bulb. Be careful not to damage the strap-like foliage. The foliage manufactures food to replenish the food reserves needed by the plant to produce future blooms. Place the plant in a sunny window and water when the soil surface is nearly dry. Fertilize every 2 to 4 weeks with a dilute fertilizer solution.

IOWA STATE UNIVERSITY
Extension and Outreach

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The amaryllis can be moved outdoors in late May or early June. Harden or acclimate the plant to the outdoors by placing it in a shady, protected area for 2 to 3 days then gradually expose it to longer periods of direct sun. Once hardened, select a site in partial to full sun. Dig a hole and set the pot into the ground. Outdoors, continue to water the plant during dry weather. Also, continue to fertilize the amaryllis once or twice a month with a complete analysis soluble fertilizer through July. Bring the plant indoors in mid-September. Plants left indoors should be kept in a sunny window.

Reflowering of amaryllis

In order to bloom, amaryllis bulbs must be exposed to temperatures of 50° to 55°F for a minimum of 8 to 10 weeks. This can be accomplished by inducing the plant to go dormant and then storing the dormant bulb at a temperature of 50° to 55°F. To induce dormancy, place the plant in a cool, semi-dark location in late September and withhold water. Cut off the foliage when the leaves turn brown. Then place the dormant bulb in a dark, cool (50° to 55°F) location for at least 8 to 10 weeks.

After the cool requirement has been met, start the growth cycle again by repotting the bulb in fresh potting soil, watering, and placing it in a well-lit, 70° to 75°F location. Keep the potting soil moist, but not wet, until growth appears.

Another option is to place the plant in a well-lit, 50° to 55°F location in fall. Maintain the amaryllis as a green plant from fall to early to mid-winter. After the cool requirement has been met, move the plant to a warmer (70° to 75°F) location.

When growth resumes, some amaryllis bulbs produce foliage, but no flowers. Amaryllis that fail to bloom may not have been able to store adequate food reserves in their bulbs in spring and summer. Others may not have been exposed to the proper temperatures (50° to 55°F for 8 to 10 weeks).

Amaryllis cultivars

Many excellent cultivars are available.

Here are a few examples of single-blooming cultivars.
'**Apple Blossom**'—white with pink feathering
'**Christmas Gift**'—white with a green throat
'**Minerva**'—red with white star
'**Orange Sovereign**'—orange
'**Picotee**'—white with red edge
'**Red Lion**'—deep crimson red

Double-flowering amaryllis are also available.
'**Aphrodite**'—white with pinkish red feathering
'**Blossom Peacock**'—rose-red with white throat and midrib
'**Dancing Queen**'—red and white striped
'**White Nymph**'—white

Miniature varieties are only slightly shorter than their single- and double-flowering counterparts. However, their flowers are about half the width of the large flowering types. Here are a few examples of widely available miniature cultivars.
'**Baby Star**'—deep red with a white star center
'**Fairytale**'—white with raspberry red stripes
'**Green Goddess**'—white with green center
'**Neon**'—fuchsia pink with a white throat

For more information on selection, planting, cultural practices, and environmental quality—contact your Iowa State University Extension county office or visit one of these websites.

http://store.extension.iastate.edu/
www.yardandgarden.extension.iastate.edu
www.reimangardens.iastate.edu

Call ISU's Hortline at (515) 294-3108 (Monday-Friday, 10 a.m.-noon and 1-4:30 p.m.)

If you want to learn more about horticulture through training and volunteer work, ask your ISU Extension office for information about the Iowa Master Gardener program.

Prepared by Richard Jauron, extension horticulturist.

Upcoming Events

Seed to Supper

Date: February 15th, 2023
Time: 10:00 am-11:00 am
Location: Our Town Rocks in Dundee New York
Free; Registration Required

This free class will teach you how to effectively grow vegetables whether you're gardening in a few pots on your patio or in a large garden, on any budget. We'll cover topics such as garden planning, choosing varieties, planting, weed control and much more. After the class you'll receive free seeds and transplants to get you started on your gardening adventure!

Call Our Town Rocks to register at (607) 426-4015 or email Caroline Boutard-Hunt at cb239@cornell.edu

Planning Your Vegetable Garden

Date: February 18th-March 11th, 2023
Time: 9:30 am-11:30 am
Location: Our Town Rocks in Dundee New York
Free; Registration Required

This workshop will help you work through what varieties will work best in your garden and how to design your vegetable garden to maximize your harvests and minimize your labor!

To register, please call the CCE Yates office at (315) 536-5123 or e-mail Caroline Boutard-Hunt at cb239@cornell.edu

Save the Date!

About Us

The Master Gardener Program is a national program of trained volunteers who work in partnership with their county Cooperative Extension Office to share information throughout the community.

Master Gardeners are neighbors teaching neighbors about landscapes, vegetables, fruits, herbs, houseplants, beneficial and harmful insects, plant diseases, integrated pest management, wildlife management, soils, birds, composting, water conservation, and much much more.

Master Gardeners are considered researchers rather than experts. They participate in 40 hours of training provided by experienced staff from Cornell Cooperative Extension to gain a basic understanding of horticulture and available horticultural information and online resources. Course topics include plant nutrition, soils, vegetable, fruit culture, trees, shrubs, lawns, diseases and insects that affect plants, pruning and more.

You don't need to be an expert to join, if you enjoy gardening as a hobby, this may be perfect for you.

To become a Master Gardener, all you need to do is attend a 10-week training offered by Cornell Cooperative Extension.

For more information, please call us at 315-536-5123!

Cornell Cooperative Extension
Yates County

417 Liberty Street
Penn Yan, NY 14527

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