A bike ride from the Port of Albany to Voorheesville on the recently-completed Hudson/Helderberg Bike Trail is a true treat. While zipping by waterfalls, behind strip malls and over traffic-choked roadways on a smooth ribbon through the countryside, I say a sincere thank you to all those who made this joy ride possible. I have only one gripe. At the western end, in front of a lovely pavilion, are planted two Callery pears. Unfortunately, someone doesn’t know that, for some time now, Callery pear has been a plant non grata, the poster child of a bad botanical actor, and simply not a good choice for a newly designed landscape.

It didn’t start out this way. According to the Washington Post, Callery pear (*Pyrus Calleryana*) was imported from China more than a century ago as a possible solution to the problem of fireblight disease in fruit-producing pear trees. As part of that research, thousands of Callery pear seedlings were growing at the U.S. Plant Introduction Station in Glenn Dale, Maryland in the early 1950’s. That’s when horticulturist John Creech found one that showed some outstanding ornamental characteristics. He admired its beautiful early spring blossoms, disease and insect resistance, and tremendous vigor even in tough site conditions. It also lacked the thorns which other Callery pears brandished. Naming it ‘Bradford’ for F.C. Bradford, a former director of the Station, John planted
180 specimens in University Park, a Washington, D.C. suburb. Happy with the results, by 1960 scion wood was offered to nursery propagators to graft onto pear rootstocks, which could then be sold to the public. This would allow identical ‘Bradford’ Callery pear trees to be planted across the nation.

A new star of garden centers was born. Landscapers liked ‘Bradford’ for its ease of planting. Landscape architects and highway departments were drawn to its lollypop shape. Everyone enjoyed the flowers. But trouble was brewing. It was soon discovered that ‘Bradford’ had a poor branching structure, and sometimes split during storms. Many trees suffered irreparable damage and required removal. In response, new varieties of Callery pear were developed with better shape and structure. Then folks noticed that Callery pears seemed to be producing more fruits. The original planting of isolated ‘Bradfords’ back at University Park had seemed almost sterile. But as time went on, and more varieties of pears inhabited more of the country and cross pollinated, they quietly fruited. Where there are fruits, there are birds, who aided in the spread of new Callery pears hither and yon, beyond the built landscape. A new invasive species was born.

By the late 90’s, the invasive characteristics of Callery pear were becoming known. Soon, dozens of states listed Callery pear on their invasive lists; the number today is 29 states or better. Localities nationwide are now spending tax dollars on eliminating invasive pears, but in New York, we keep planting them. Unfortunately, State government left Callery pear off the invasive species list created in 2014. Obviously, we have a disconnect between people and pears.

"I’m no good at cooking or music, but I’ve always known how to garden. Nobody ever taught me; I just absorbed it. Some families are churchgoers or sports fans. We gardened."

Author and 1960’s TV personality Thalassa Cruso
Amaryllis Thrives On Tough Love

The one plant, besides poinsettia, that’s often given as a Christmas gift is amaryllis. Many people enjoy the Christmas bloom and then throw the plant out. Many years ago I found such a discarded plant in the snow of a neighbor’s sidewalk. Fortunately, amaryllis is a bulb and thus not likely to freeze after a short exposure to cold. So, of course being the scrounge that I am, I brought the amaryllis home. The next summer I divided the bulb into two.

The next question was, “How do I get it to bloom in subsequent years?” I decided once I had two plants, I would “rest” one and allow the other to carry on photosynthesis. The one I rested went into the cellar with no light and no water from November until February. Thinking like a plant, I thought that my life was threatened without light and water. Of course the first thing that any life wants to do when life is threatened is to make sure its genetic material (DNA) is passed on. So, for plants, producing flowers and thus seeds is the answer. Sure enough, as soon as my “cellar” plant got light and water, it formed a flower. Only after the flower had formed did my amaryllis produce leaves.

By the time I moved from Cohoes I had more than twenty amaryllises. My first one was red, but I ended up with red, white and white with red stripes in the center of each petal. Now, I have to confess that resting the bulbs did not result in one hundred percent flowering, but it certainly produced flowers in more than seventy-five percent of the plants. In resting the plants, you may leave the bulb in the flower pot or you may take it out of soil and store it as a dry bulb. Since I am lazy, I left the plants in the flower pots. In writing this article, I came to realize that most, if not all bulbs, need a rest. Think of your outdoor plants: tulips and lilies. Even down south - my son lives in Baton Rouge, Louisiana - his outdoor amaryllises die back in the winter only to come up with that initial flower in the spring.

Can you propagate amaryllis from seed? Absolutely! I only got small plants during the first year. I do not remember how long it took before I got flowering offspring, but it certainly is not an undertaking for people in a hurry.

So, to sum it up, I would suggest propagating amaryllis asexually, i.e., by dividing the bulb, I would suggest feeding the plant once leaves are forming and I would certainly say you should rest the bulb. Feeding the plant? What kind of fertilizer? Most fertilizers have three numbers. For example a common garden fertilizer is 5-10-5. The first number is the amount of nitrogen. Nitrogen promotes green growth, so for example, a good lawn fertilizer is high in nitrogen. For amaryllis you might want something like 10-5-5. The time you are fertilizing amaryllis is when the leaves are growing and the leaves carry on photosynthesis for the plant. The second number in a fertilizer (e.g. 5-10-5) represents phosphorus. This promotes flowering, thus you want something high in phosphorus if you want to produce something like tomatoes. You do not need a fertilizer high on phosphorus for amaryllis because the “rest” causes the plant to bloom. The third number in a fertilizer represents potassium and that promotes the formation of strong stems. So, asparagus might want a 5-5-10 fertilizer. Amaryllis does not need fertilizer high in potassium. Its stem is the bulb and the bulb is only enhanced with the passage of time.

So this year, if you get an amaryllis, don’t throw it out. Keep it to bloom in future years!
Barriers to Browsers

Oh, dear! These beautiful creatures are browsing our forested lands to near extinction. While many local woodlands might look healthy, a lack of understory trees and native wildflowers, the presence of invasive species such as garlic mustard and Japanese barberry, and a browse line in the lower tree canopy all indicate too much deer feeding. Without young trees, the forest has a dim future. In response, owners of woodlands, sugarbushes and gardens often resort to fencing, which can be expensive. Cornell Cooperative Extension Forestry Educator Peter Smallidge is researching lower-cost plant-protection options.

“Protection of isolated trees is possible with wire cages or tree tubes,” writes Peter. “Several tree tube designs are available. Tree tubes should be at least 5 feet tall and with ventilation ports to allow air circulation. Tree tubes need to be securely staked to the ground, and checked annually to ensure the tube is functional and the bottom is in full contact with the soil. Tree cages made from 2” x 4” welded wire or poultry wire should be 5 feet tall and well staked. Some nut trees and conifers may do better in larger diameter cages than in tubes. Weed management around the tube or cage is necessary to improve seedling growth, and will limit habitat for rodents that might girdle the seedling.

For larger areas, fencing is a more efficient and cost-effective option than tubes or cages. Typical fencing designs include clearing an access trail, driving posts where needed, and the use of large machinery to transport 8 foot woven wire fence spools. Some newer designs use 8 foot plastic mesh fence that allows for the use of small and less expensive fence posts. No fence perfectly excludes deer, and all fences require inspection and some amount of maintenance. The most expensive fences, but most effective, are made of woven wire with driven fence posts. Installation costs are typically $2.50 to almost $4.00 or more per running foot.

Research by Cornell Cooperative Extension and Cornell University Department of Natural Resources staff is assessing the costs and efficacy of two fencing designs to prevent or limit deer impacts. The objective is to identify low cost options that adequately exclude deer until tree seedlings grow above the reach of deer. Two methods use either plastic mesh or high tensile wire as the fencing material. These designs are being tested in ½ to 2 acre areas that have been managed through thinning or harvesting to increase sunlight and accelerate the establishment and growth of woodland regeneration. In some cases, herbicides were used to control interfering understory plants. The fencing designs are also being tested in sugarbushes to protect young maples and promote regeneration and sugarbush sustainability.”

In summary, the plastic mesh fence cost about $0.59 per running foot, and the high tensile wire fence cost about eight cents less. Part of the overall savings is through the use of low-value trees as living fence posts, which avoids the purchase and installation costs of fence posts. View the entire report at the website www.smallfarms.cornell.edu.  

Text by David Chinery
Review, plan, dream!

Review your recent garden journals, calendars, and photos. Note what worked well and what didn’t. Remind yourself of the mistakes first and then decide on alternatives, whether using different plants or different materials and methods. Look closely at the successes and figure out what the causes were. Fine tune your seed and plant orders accordingly, and adjust your methods to correct errors and increase production.

Start a 2019 calendar to use exclusively for gardening information, such as varieties and dates planted. Plan to faithfully record your daily garden-related activities.

Start a new garden journal and draw up a new garden map. Even in a small vegetable garden it is advisable to rotate your crops to alleviate some pest and disease issues that occurred last season. Re-think the location of your perennials and shrubs. If something has been languishing in the same location for a while, plan moving it to a different spot in the garden. Of course, you might have to move plant B in order to make a spot for plant A’s new home, then move plant C in order to make room for plant B, and so on and so on… this might take a while.

Make a list of the perennial plants which need moving or dividing in the spring. Include a list of where you will move them or to whom you can give them.

Peruse and enjoy the new seed catalogues, but read them with caution. The more grandiose the description, the more you should be wary. Know what hardiness zone we are in and look for a statement with that information in the description. Any catalog lacking this information or any catalog that doesn’t give the botanical (scientific) name should be read with care. Generally speaking, we are in USDA Hardiness Zone 5, but you can check your own backyard by visiting http://planthardiness.ars.usda.gov/PHZMWeb/

For good success with seed starts, evaluate your equipment and materials before you begin. Sterilize questionable potting media by heating it in the oven at 180 degrees for 25 minutes before using. Sterilize used pots and flats by soaking in one part bleach to nine parts water for 15 minutes. Make sure that grow lights, heating mats, and other electrical seed starting equipment is safe to use and ready to operate.

Clean and repair garden tools. Most can be sterilized by soaking for 15 minutes in a solution of 1 part bleach and 9 parts water. Rinse and dry thoroughly, then lubricate with oil (WD-40 or equivalent). This may be a good time to book your lawnmower for maintenance.

Liven up the indoors with new house plants. Give your current houseplants a few minutes attention, inspecting for insects, disease, drought and cold damage. Allow them to rest for the next 6 weeks, giving them minimum water and fertilizer. But you can rotate pots, prune if leggy and start new cuttings.

Go outdoors, get some fresh air, and take a good look around. Trees and shrubs can be inventoried and inspected with no leaves cluttering the view. This is a good time to look for disease such as black knot on cherry and plum trees. Make a note of the tree branches and shrubs that need pruning in at the appropriate time when the weather warms.

Text by Rensselaer County Master Gardener Betsy Kauffman
The emailed photo showed two tiny critters, lounging in what might be an aluminum baking pan amongst some soil. Did these miscreants cause the rot which infested my dahlias, the irritated gardener wanted to know. One was a millipede, which is not often a pest of healthy dahlia tubers, since their miniscule mouthparts limit their abilities to munching on decaying plant matter. The other fellow was more interesting. After enlarging the photo, I hit upon the identification: a wireworm.

Just like much else in horticulture, the name is misleading. Wireworms are not kin to earthworms, but are the larvae of click beetles. Cylindrical, hard-shelled, and ranging in color from brown to yellow, they can be up to 1.5 inches in length. The look vaguely like a millipede, but have only six legs. We might be able to co-exist in harmony with them, never giving them a thought, except for the fact that we both like to eat the same things. Beans, beets, carrots, corn, lettuce, muskmelons, onions, peas, potatoes, strawberries, and sweet potatoes are all part of the wireworm diet. Unfortunately, dahlias are also high on their list. They’ll chew on a variety of underground plant parts, including seeds, stems, roots, tubers and corms. Wireworms are especially gifted at detecting the carbon dioxide produced by respiring vegetable matter and sneaking through the soil to attack it. This means your seed corn never comes up, your carrots are deformed, or, in the case of our emailer, your dahlias are opened to rot. The wireworm is not your friend.

One old-school way to manage wireworms involves trapping. Potato chunks are speared with sticks and buried a few inches deep, a few feet apart. The end of the stick is left above-ground, to mark the trap’s location as well as to cause a tripping hazard for the gardener. The wireworms, meanwhile, move in to feed. After a week, the traps are dug up and destroyed. It is an elegant and inexpensive system, although the potatoes are decidedly unappetizing in the end. Other methods involve planting cover crops of alfalfa or clover, or leaving the ground bare over winter and repeatedly cultivating the soil, exposing the wireworms to the vagaries of the wider world.

Just like an awkward teen who grows into an accomplished adult, wireworms metamorphose into a rather interesting mature form called the click beetle. These creatures were first described in detail by a young biologist with a most appropriate name, William Elford Leach. An overly zealous worker, poor Leach soon suffered a nervous breakdown in reward to his efforts, and later died of cholera. The beat went on for the click beetles, of course. Long known because of their amazing physical achievements, click beetles are also called spring or snapping beetles, skipjacks or elaters. When trapped on their back or troubled, a “peg and catch” system can launch the beetle to a height ten times its own length at a speed of 8 feet per second, simultaneously making the namesake noise. If only they could dribble a basketball.

Text by David Chinery
Horticulture is all about making plants do our bidding. We prune shrubs into torturous topiaries only rivaled by poodles, we graft roots on shoots to the envy of the finest cabinetmaker, and we force plants to bloom on our own schedules. Although I’ve hedged for years and have experience in graft (but not corruption), forcing branches into bloom for winter color indoors has somehow eluded me. I’ve convinced myself to give it a try, and want to persuade you to force, too.

Forcing branches simply involves collecting twigs and watching them grow, right? Well, yes, although there are a few additional things to consider. First, only trees and shrubs which flower on “old wood” usually work well. Since these plants form flower buds in the autumn, they can bloom relatively early the following spring, before initiating much new growth. Other plants, which must grow for a period before flowering on current season’s shoots, are said to bloom on “new wood.” Therefore, stems from forsythia are a good forcing bet, whereas rose-of-Sharon, which flowers only when summer is well underway, will not be successful.

Also, consider the cold. Although we might think freezing temperatures are the bane of a plant’s existence, most require a period of eight weeks or so of temperatures below 40 F before they will force well. By sometime in January we normally reach that milestone, so bridal wreath spiraea (Spirea prunifolia), Cornelian dogwood (Cornus mas), flowering quince (Chaenomeles sp.), shadbush (Amelanchier sp.), crabapple (Malus sp.) and the aforementioned forsythia will soon be ready. Authorities on flowerbud coercion recommend, though, that others, such as lilac (Syringa sp.), mock-orange (Philadelphus coronarius) and redbud (Cercis canadensis) are better cut in March. I’m not sure if we’re having a “real” winter so far, but I trust that the trees and shrubs will think it sufficiently frigid to flower.

Now for the how-to. Choose vigorous, young branches and cut them about ¼ of an inch above a side branch or bud. Stems 6 to 18 inches long are the best to display. After bringing branches indoors, make a new, slanted cut on the bottom of each just about the original cut. If outdoor temperatures are below freezing, plunge the branches in a large tub of cool water overnight. This allows them to come up to temperature slowly. If outdoor temperatures are above freezing, skip this step.

Next, put the branches in an upright position in a vase or bucket, and add about 3 inches of warm water. Adding a preservative will lengthen the life of the branches. Purdue University’s fact sheet, “Forcing Branches For Winter Color,” makes the following recipe suggestions. Combine 2 cups of lemon-lime soda, 2 cups of water, and ½ teaspoon of chlorine bleach. Or, add 2 tablespoons of white vinegar, 2 tablespoons of sugar, and ½ teaspoon of chlorine bleach to 1 quart of water. Hiccup!

Keep the branch-filled containers in a cool, darkened room until the buds start to show color, when they can be moved into more light. May the force be with you.

Text by David Chinery
Our photos this month come from Rensselaer County Master Gardener Barbara Nuffer. Barbara writes, “This past July my husband and I visited Glacier National Park, in the northwestern corner of Montana, bordering on Canada. The weather was perfect, we hiked many miles and were joined on the trails by Rocky Mountain Goats and Bighorn Sheep. Hiking at an elevation of 6,800 feet brought us up into the Alpine Zone. Snow still covered the slopes and even the trails in places. The wildflowers were abundant and varied. There are over 1,000 species of plants in this park. Here are a few of my favorites. Enjoy the brilliant colors and unique shapes. A trip to be remembered!”
First, let’s consider a traditional three bin “hot” compost system (photo 1). Start at bin #1. As it decays, move the contents to bin #2 and continuing refilling the first bin. Wait for more breakdown, then move bin #2 to bin #3. In the meantime, shake up contents of each bin weekly to aerate and hasten decomposition.

Eventually, over the summer, contents reach bin #3 and all bins are refilled as the growing season progresses. Don’t forget to shake up the contents of each bin weekly throughout the summer. This hastens decomposition and is a great opportunity for upper body workout. You can add compost turning to your PC or smart phone calendar as a reminder.

This is a labor intensive compost process. It works well for processing kitchen waste. Decomposition is fast. The walls deter animal foraging. Blue jays check in occasionally, but daily turning keeps food items out of sight and makes them quickly unpalatable. Kitchen waste requires a carbon source especially over the winter months. This can be met with shredded newspaper, office paper or junk mail paper. Other sources are used paper towels and coffee filters.

There is another option. It does not require a computerized calendar schedule. It does not require weekly shaking or turning. It does require some extra innocuous space free from neighbors’ line of sight. This is a ‘cold’ compost pile. Just pile it up, wait about 12 months then dig under and pull out the finished compost.

This method is necessary for end of season garden clean up when there is usually too much material for the 3x3x3 foot bin composter. This is not a suitable method for recycling vegetable kitchen waste. Decomposition is slow and the visible food waste would be attractive to animals. Also, paper products would create a litter problem when blown around by the wind. This slow composting of garden vegetation creates a fine, dry product. Weed seeds and pathogens won’t be killed or reduced as they might be in hot composting. The three bin compost tends to be more coarse and moist from the concentration of kitchen waste and grass clippings and shortage of carbon material and lack of frequent turning.

A third option can be seen at the Demonstration Garden created by the Rensselaer County Master Gardeners. It is located at the Parker School off Route 43 in West Sand Lake. Master Gardener Bob Sherwood constructed a compost structure that incorporates features of the three bin and the informal cold pile. It is a passive way of composting with no turning like the cold pile but contained like the three bin method. The open slat construction and passive no turn method makes it best for garden waste rather than kitchen waste.

This structure for the Demonstration Garden is composed of four bins. Two bins could be adequate for a backyard composter. The first year deposit all garden waste into one bin. Next spring label that bin “No” and just let it sit. Then current season material goes into the empty “Yes” bin. Before garden clean up at season end its time to empty the “No” bin. While it will still have some vegetation that needs to be pulled out and thrown into the ‘Yes’ bin, it will also be full of completed compost that is removed and ready for use. It can be sifted or used as is. Now the “No” bin is empty and is refilled with contents of the “Yes” bin and allowed to sit for another year. The “Yes” and “No” signs guide garden volunteers where to dump their fresh garden refuse.

There are many ways to make compost from the passive pile to rotating barrels or worm farms. All keep kitchen and yard waste out of landfills while making excellent soil amendments for the garden soil. It is a great feeling of accomplishment to dig up the finished compost product and spread it on the vegetable or perennial beds. Find a composter that works for your property and change waste material into a valuable soil amendment.
I don't know whether it is nobler or not to mix your own; but for most backyard gardeners, including me, the decision is probably mostly a matter of convenience. My backyard is big enough for me to have a compost pile that handles our yard waste and kitchen scraps, but I don't have enough space to warrant creating my own specialized soil mixes because of the quantities of ingredients that I would have buy to make it economically advantageous. I also know that my compost pile never heats up enough to pasteurize itself, and I am quite sure that I would encounter resistance if I were to propose sterilizing the compost in our kitchen’s oven.

Although creating your own specialized soil mixes may not be your cup of tea, composting is something that you should do. If you are interested in composting and have not yet started, look at the Cornell website, Small Scale or Backyard Composting, for information about how to start.

However, for those of us lured by the siren's call of convenience, there are numerous organic and conventional commercial soil mixes piling up now in stores near you as spring approaches. Both types contain some combination of organic and inorganic components. Most combine peat or sphagnum moss with perlite or vermiculite and add either synthetic or natural ingredients (e.g. bonemeal, fishmeal, feather material or vegetable compost) for fertilizer.

Starting mixes need to be relatively fine and uniform in texture, disease and weed free, allow for soil aeration and retain moisture to minimize the risk of drying out. Growing or potting mixes have similar characteristics, but soil particle size is larger; and they typically include more nutrients, i.e. fertilizers, to promote and sustain plant growth after germination.

You can find many formulas for do-it-yourself soil mixes on the Internet. They seem to follow one of two variations. The first formula is very simple and is widely utilized in commercial greenhouses:

1/2 vermiculite or perlite
1/2 peat

This mix was developed at Cornell University in the 1960's by researchers, James W. Boodley and Raymond Shelldrake, Jr. You can find out more about it and how to tweak it for various plants from Cornell's Information Bulletin 46: Cornell Peat-Lite Mixes for Commercial Growing. If you use this mixture in small plug cells, plan on transplanting the seedlings into larger pots with a growing mix. If you are using larger cells or pots with the Peat-Lite mix, then it will be necessary to fertilize the seedlings to sustain growth until they can be set out.

The second formula approximates retail commercial mixes. It includes both perlite and vermiculite with generous compost and fiber components to satisfy fertilizing and aeration needs. Using this recipe you could start seeds in larger plugs or cells and not have to transplant seedlings.

4 parts pasteurized compost
1 part perlite
1 part vermiculite
2 parts peat or coco fiber

Adopted from a March 18, 2018 post of the Rensselaer County Vegetable Blog by Irv Stephens, Rensselaer County Master Gardener
“To garden is to let optimism get the better of judgment.”

Eleanor Perenyi (1918-2009, American author)

Gardening Questions?

Call The Master Gardeners!

In Albany County: Call 765-3514 weekdays from 9:00 AM to 3:00 PM and ask to speak to a Master Gardener. You can also email your questions by visiting their website at www.ccealbany.com

In Schenectady County: Call 372-1622 weekdays from 9:00 AM to Noon, follow the prompt to speak to a Master Gardener and press #1. You can also email your questions by visiting their website at http://counties.cce.cornell.edu/schenectady/

In Rensselaer County: Call 272-4210 weekdays from 9:00 AM to Noon and ask to speak to a Master Gardener. You can also email your questions to Dhc3@cornell.edu

Cornell Cooperative Extension of Rensselaer County
David Chinery (dhc3@cornell.edu and (518) 272-4210)
Newsletter editor, designer and layout technician

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(518) 765-3516

Cornell Cooperative Extension of Schenectady County
Angie Tompkins (amj22@cornell.edu and (518) 372-1622)

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“Root Concerns: Notes from the underground” is a shared publication of Cornell Cooperative Extension of Rensselaer, Albany and Schenectady Counties. It is published by Cornell Cooperative Extension of Rensselaer County.
Spring Garden Day

Saturday, March 2 2019
9:45 am to 3:30 pm
Tamarac/Brunswick High School
Troy, NY

How are local farms and local foods changing the way we dine out and eat at home? Farmer Justine Denison, food writer Deanna Fox and restauranteur/farmer Jinah Kim will explain their roles and give us their insights on the Capital District’s Farm To Table Revolution!

Featured Speaker Kate Kerin

The Magic of Innisfree
Welcome To Spring Garden Day 2019

Full Day Registration: The fee of $30.00 entitles each participant to choose up to three classes for the day; to participate in the free lunch and door prize drawing; and to hear the keynote speaker. Register by examining the attached class schedule. Indicate your first, second, and third choice of classes on the form for each of the four class periods. Make sure to choose a lunch period, or another class if you do not want lunch. Your class assignments will be available at the registration table on March 2. You will not receive registration confirmation by phone or mail, but you can call us at (518) 272-4210 to make sure we received your registration. The enclosed schedule is final, but last minute changes may be necessary. Although we try to give people their first choice, class sizes are limited, and, regretfully, we may have to place you in another class. Registration will be open until classes are full. Registrations are taken on a first come, first served basis. Refunds must be requested on or before February 22. After that date, no refunds will be made.

Keynote Session Only Registration: You can attend the keynote session only for a fee of $10.00. To register, check the appropriate box and mail us the registration form and fee. Registrations will also be accepted at the door for the keynote session only option.

Time: Registration starts at 9:45 AM. The first sessions start at 10:30 AM. Please do not arrive before 9:45 AM in order to allow us time to set up. Your cooperation is appreciated!

Lunch: A delicious lunch consisting of home-made soups, sandwiches, desserts and beverages will be provided for all full day participants, courtesy of the Master Gardeners. Vegetarian items will also be available.

Pick-A-Prize Auction: We will hold a Pick-A-Prize Auction of garden-related items. Participants can buy tickets (10 for $5.00) and “bid” on items by placing a ticket or tickets in a paper bag next to the item. Winners will be drawn at the end of the day after the last sessions. You must be present to win. Proceeds will support the Master Gardener Demonstration Garden.

Sales: A used book sale and a plant sale will be held in the lobby.

Door Prizes: Door prizes will be awarded at the end of the day in the auditorium. YOU MUST BE PRESENT TO WIN!

NEW! In case of snow: The program may be postponed to Sunday, March 3 in the event of significant snowfall. You will be contacted at the email address and/or phone numbers you provide on the registration form. You can also check our website at ccerensselaer.org for announcements. No refunds will be given if the program is moved from March 2 to March 3.

Directions to Tamarac/Brunswick/Brittonkill High School:

From the west (Albany, Schenectady, Troy): Take Route 7 East over the Collar City Bridge. From the east end of the bridge, proceed east on Route 7 (Hoosick Street) approximately 9 miles to a traffic light at Route 278 (past the Hatley-Davidson dealer on right). Turn right onto Route 278 east and proceed for approximately 3 miles until Route 278 ends at a traffic light at Route 2. Turn left onto Route 2; the school is immediately on your left.

From the south (West Sand Lake/Route 43 area): Take Route 351 north, through the village of Poestenkill, until you reach Route 2. Turn left (west) onto Route 2. The school will be very shortly on your right.

Questions: Call the Horticulture Program at (518) 272-4210. Individuals with questions or special needs requiring accommodation should contact Cornell Cooperative Extension of Rensselaer County at the phone number above. Cornell Cooperative Extension is an employer and educator recognized for valuing AA/EEO, Protected Veterans, and Individuals with Disabilities and provides equal program and employment opportunities.”
REGISTRATION FORM - SPRING GARDEN DAY - March 2, 2019 (snwdate: March 3)

Please complete carefully and completely!

1. Please indicate your first, second and third choices for each time period by writing 1, 2, or 3 on the line. Choosing second and third choices for each time period is necessary in case your first choice is filled. Regretfully, not everyone will receive all of their first choices, due to room size restrictions. Make sure you sign up for either the first or second lunch period (if desired). This will establish your tentative schedule.

2. You will receive final confirmation, based on class size and availability, at check-in at Spring Garden Day 2019. You will NOT receive confirmation by mail or phone prior to the program, but you can call us at (518) 272-4210 with questions or to confirm we have received your registration. Registration is open until February 22, 2019 or when classes are filled.

3. Send this completed form with check for $30.00, made payable to Cornell Cooperative Extension, to: Cornell Cooperative Extension, Spring Garden Day, 61 State St., Troy, NY 12180. Thank you!

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<td>Food Preservation Basics</td>
<td>Stunning Succulents</td>
<td>Exploring The Farm To Table Revolution</td>
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Exciting DOOR PRIZES:

DRAWING WILL BE HELD IN THE AUDITORIUM

YOU MUST BE PRESENT TO WIN!!

NAME: ____________________ HOME PHONE: ____________________ WORK PHONE: ____________________
ADDRESS: ____________________ CITY & STATE: ____________________ Zip: ____________________

EMAIL ADDRESS: ____________________

Check One: I have enclosed my check for $30.00, payable to Cornell Cooperative Extension, for full day registration; I have enclosed my check for $10.00, payable to Cornell Cooperative Extension, for keynote session only registration; ______

By registering I give my permission to Cornell Cooperative Extension of Rensselaer County to use any photos, slides, films, or sketches taken of myself during this activity for publicity, advertising, and/or promotional purposes.
Class descriptions & speakers

1. Innovation at Innisfree Garden – Inspiration from Art and Science – Innisfree, in Millbrook, New York, is an iconic, mid-twentieth century landscape – a distinctly American stroll garden. Informed by both art and science, this powerful place evolved through the subtle handling of the site and slow manipulation of its ecology. What few know is that this 185-acre landmark is sustainably maintained by a tiny staff on a very small budget. Innisfree Landscape Curator, Kate Kerin, will introduce innovative, sustainable landscape design and management ideas that home gardeners and landscape professionals can adopt and adapt to their own sites.

2. Creating Fabulous Floral Arrangements – Learn some of the principles behind creating fabulous floral arrangements from a master designer! David E. Siders will give us a lively, hands-on demonstration showing how to create beautiful designs using fresh plant material. David is an accredited member of the American Institute of Floral Designers and is an owner of Experience and Creative Design, Ltd., in Schenectady, NY.

3. Totally Tomatoes from Seed to Harvest - Delicious, nutritious tomatoes are the most popular crop for home gardeners, with good reason. Albany County Master Gardener Phyllis Rosenblum, who starts hundreds of tomatoes from seed each year, knows tomatoes! Learn how to select varieties, start seeds, and grow your best crop ever.

4. Pruning Demystified - Do I clip the hydrangeas and how do I restrain the wisteria? Master Gardener Beth Bechand, Master Gardener with Cornell Cooperative Extension of Rensselaer County, will explain some of the hows, whys and whens of pruning many types of woody garden plants.

5. Rethinking Perennials - Developments in ecology and environmental science over the last thirty years have revolutionized the way we think of using perennials in gardens and landscapes all over Europe and North America. Whether it’s called “The Dutch Wave”, “The New Perennial Movement”, “The New American Garden” or any number of other names, creative gardeners and designers have reinvigorated the use and appreciation of herbaceous plantings worldwide. This talk will present some historical context, an overview of the major concepts involved and an introduction to a few of the most innovative perennial planting designers working today. Robert Clyde Anderson is a garden designer, consultant and writer who currently works with Pondside Nursery in Hudson, NY.

6. Food Preservation Basics – If you are new to the world of food preservation or would like a review, this program is for you! The basics of water bath canning, pressure canning, dehydrating, and freezing will be discussed. Learn about equipment needed and procedures that need to be followed in order to produce a safe and enjoyable finished product. Presented by Marjorie Anatriello, CCE food preservation volunteer.

8. Dahlia: From Tuber To Bloom - Lee Ryan, Master Gardener with CCE of Albany County, will cover the basics of handling dahlia tubers when planting and overwintering as well as best practices for growing gorgeous, healthy plants. Dahlia varieties, easy steps to planting, food your dahlias will actually eat, common pests and diseases, harvesting their beauty, and when to dig and separate tubers for their winter nap will also be discussed. Lots of beautiful pictures, too!

10. Strategies for Deer-Proofing Your Garden - Drawing upon over 40 years of gardening in deer country, Brad Roeller will impart lessons learned in deterring deer from browsing upon ornamental plants. Learn about environmental and biological factors which influence deer and their choice of food that will assist homeowners and professionals in developing a strategy for “deer-proofing” their landscape. Brad has also evaluated hundreds of popular herbaceous and woody ornamentals which show some inherent resistance to deer feeding, as well as the plethora of products, gadgets and methods intended to discourage deer from foraging in landscape plantings.

11. Stunning Succulents - You’ve got to love succulents. Give them plenty of sun, and water occasionally, and they will reward you with show stopping textures, colors and offspring. Learn how easy it is to incorporate them into your home and landscapes. Buying and growing tips will be included along with plenty of inspiration to create succulent dish gardens and vertical mosaics. Denise Maurer is a Master Gardener with Cornell Cooperative Extension of Rensselaer County.

12. Grow A Hummingbird Garden – Welcome ruby-throated hummingbirds by creating a habitat they will love. Learn what flowers, trees, and shrubs to plant to attract these flying jewels. Use of feeders as well as the life habits of hummingbirds will also be discussed. Pat Thorne, Master Gardener with Cornell Cooperative Extension of Rensselaer County, will share some amazing facts about these incredible little birds.

Special Keynote Session – Exploring The Farm To Table Revolution - We all love to eat, and more delicious produce is available from local farms and restaurants than ever before. Our panel of experts will highlight the many ways you can eat locally. Justine Denison and her family own Denison Farms, an organic farm and community-supported agriculture (CSA) business in Schaghticoke, NY. Deanna Fox is an Albany-based freelance writer and media personality who focuses on ideas in home cooking, culinary history, food policy and production, and agriculture. Jinah Kim owns Sunhee’s Kitchen and Farm, a family-run and community focused Korean restaurant in Troy featuring produce grown on her Cambridge farm.