

April 2019

Volume 14, Number 3



Root Concerns

Notes from the underground

A MIGHTY MICROBE

There is interesting news in the world of white grubs, those larvae of scarab beetles which like to eat plant roots. Hereabouts, we see grubs of Japanese beetles, European chafers, Oriental beetles and their kin feasting on the roots of lawn grasses. While a few grubs per square foot don't significantly damage a healthy lawn, high numbers can kill the grass and also attract birds, skunks, raccoons and other critters who dig up these tasty snacks. For decades, folks with lawns nice enough to care about have used insecticides to protect their turf, with alternatives, such as beneficial nematodes, being tricky and costly. Recently, a new "good guy" bacteria called *Bacillus thuringiensis* variety *galleriae*, which I'll call Btg, has come on the lawn care scene to offer a new way to give grubs the rub.

Unlike the extra-terrestrial "E.T.," the alien botanist, gardeners know that Bt originates as a naturally occurring, insect-killing bacteria here on earth. Bt comes in many forms and kills many types of insect pests, and can therefore be deployed to protect a broad range of plant species. It is the most widely used type of what we call microbial pesticides. Some Bts control moth larvae which attack cabbage, broccoli and other brassica-type vegetable



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Cornell Cooperative Extension

<http://grubid.cals.cornell.edu/>

plants, whereas others are specific for the larvae of flies and mosquitoes, and others for beetles. The target insect species are determined by whether the particular Bt produces a protein that can bind to a larval gut receptor, thereby causing the insect to starve to death. Not a happy end, but effective.

Microbial insecticides such as Bt are applied as sprays, dusts or granules just as conventional pesticides are, and can generally be used by “organic” growers as well as anyone else. Bt works more slowly than many chemical pesticides. For example, when a caterpillar ingests Bt, it will continue feeding until the Bt toxin is activated in its gut and remains alive on the plant for a few days. Because Bt does not readily reproduce and persist in the environment, it must be applied at regular intervals.

So how good is Btg, the version useful for grubs in lawns? Tests at The Ohio State University have indicated that it has controlled 70%, and sometimes more, of the grubs in their trials. Most of the data I have seen are for Japanese beetles, but a product called Grubgone, which contains the active ingredient Btg, claims control of European chafer and Oriental beetle grubs as well on its label. The best time to apply Btg is mid-August, when adult female beetles are busy laying eggs in the soil and young grubs are hatching. Since Btg is specific to scarab beetles, it should pose no problem to pollinators like honeybees and butterflies. I hope to put out a small trial here in Rensselaer County this August and learn what I can. Since this is a new product, I’m sure we’ll be able to fine-tune its usefulness as time goes by. Btg, welcome home!

TEXT BY DAVID CHINERY



A New Cornell Resource:

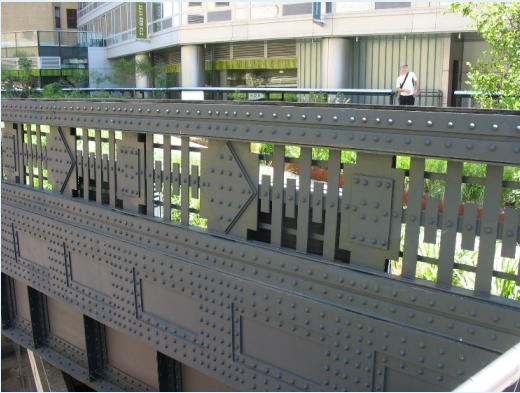
“Grub ID”

A Website To Help Gardeners Identify White Grubs of Common Beetles

VISIT: <http://grubid.cals.cornell.edu/>

A Visit To The High Line

I had the opportunity to visit the High Line Park several years ago when it was quite new. Since then it has been completed to the finished length of 1.45 miles. It exists along an abandoned elevated railroad track that originally served the meat packing industry in lower Manhattan.



The rail bed had been unused for 25 years. It was lush with self-seeded vegetation. It was also being eyed for destruction as an eyesore. Grassroots action saved the structure. The goal was to

create a city park and botanical garden. The garden plan copied some of the wild nature of the neglected site. The role railroads and industry played in the city's history was also part of the plan.



Railroad track is incorporated into the garden design. The picture above shows part of the original railbed. It is planted with vegetation native to the New York environment. It has the appearance of the wild nature of the site prior to its restoration as a garden park. In other areas, concrete structures are designed into the surface using abstract representations of railroad tracks.

In addition to the ambiance and beauty of the park, there is also the benefit of an architectural art exhibit. Everywhere you look from the vantage point of the High Line elevation are classic scenes of the city.



Of Indiscriminate Taste

Text by David Chinery



extension.umn.edu/insects-infest-products-and-houseplants/larder-beetles

Larder beetles have an outdated name, but they don't care. Back in the days when food was locally grown and processed, and not bought in stores, every home needed a naturally cool food storage area. Hence, the larder was the place to keep anything perishable in the days before ice boxes and refrigerators, and the beetles often spoiling the stash were given the name "larder." Today, we might assume that preservatives, packaging, canning, freezing and all the rest must put larder beetles out of business. But oh no, they continue to thrive, at least in one Troy home which supplied me with the two beetles now hanging out (securely bottled) on my desk.

Unlike Blockbuster, Pan Am or Radio Shack, larder beetles (*Dermestes lardarius*) have adapted successfully to changing times. Originally noted for infesting meats, they actually have a rather expansive palate and can be found in an amazing array of places, given that some high-protein food source is nearby. Larder beetles can infest skins, furs, feathers and taxidermy specimens, bird nests, and dead rodents stuck in traps or in walls. Hordes of dead cluster flies in attics or wall voids can also serve as hosts. The crusty insects accumulated in a light fixture or the old wax combs of deceased honeybees are other possibilities, and even ill-preserved museum specimens of dried insects or animals can fall prey. Most tasty of all might be modern dry dog and cat food, something no pre-twentieth century larder beetle ever enjoyed. In short, they can take up residence in almost any place where a food source has been abandoned, stored for too long, or just not watched over carefully enough.

Adult larder beetles are 1/3 inch long and black in color, with a pale tan to yellow band across the front portion of the wing covers. Each band has three black dots arranged in a triangular pattern. A larder beetle mom will lay up to 100 eggs in an available food source, and the eggs will hatch in about 2 weeks. Larder beetle larvae are reddish brown and densely covered with short and long hairs, and have two curved spines on the top of the tail end. After feeding, they bore into any sturdy substance, including meat, cheese, plastic, wood, tin, books, or insulation. Fortunately, boring larder beetles don't often pose a structural threat to homes, but they have been known to severely damage agricultural buildings. A secure space is needed, since a non-mobile, pupating larder beetle makes a handy snack for others of his own kind. Pupation takes only a speedy three to seven days, after which the adult larder beetles emerge in all their glory. This entire saga from birth to adulthood takes about 40 to 50 days.

If larder beetles are discovered, a housecleaning of the first magnitude is in order, with all possible food sources removed. Seal cracks, too, since larder beetles can slip indoors from outside. If dead critters hide inaccessible in your walls, just let nature take its course.

Psilotum nudum

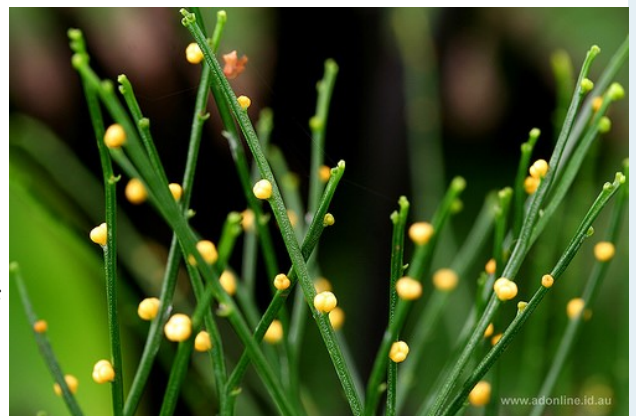
One of the plants I have loved for a long time is *Psilotum nudum* (whisk fern), and I'd like to share a little bit about it.

As the common name implies, *Psilotum* is closely related to ferns. What distinguishes ferns from familiar plants such as pine trees and tomatoes? The presence of seeds!

Ferns were the dominant vegetation as the Paleozoic era was transitioning to the Mesozoic era (about 300 to 250 million years ago). Ferns do not produce seeds, so their sexual reproduction is solely dependent on the spores they produce. If you look at pictures of *Psilotum*, you will probably notice small yellow round structures on the stem. These small round structures are triplets of sporangia and spores are produced in them. Spores may germinate and grow into small non-vascular plants that end up producing sperm and eggs. After a sperm fertilizes an egg, the fertilized egg or zygote may grow into the familiar fern plant.

Why have I loved this plant so much? Probably because I made so many false assumptions at first, but I learned a lot. Let's look at the species name - *nudum*. It means "nude". Why nude? This plant has no leaves and no roots, i.e., it is nude. One of my first incorrect assumptions was that *Psilotum* came into existence before leaves and roots were parts of normal vascular plant anatomy. Not true. Ferns have leaves - as a matter of fact, in my opinion, they have the most beautiful leaves in the plant world. The lack of leaves and roots is another example of degenerate evolution, the descent of simpler organisms from more complex ancestors. Without leaves, how does this plant carry on photosynthesis? I think this is one of the reasons I am so fond of *Psilotum*. Its stem is photosynthetic. Without roots, how does it get water? It has an underground rhizome (horizontal stem) that absorbs water and anchors the plant.

Is *Psilotum* difficult to grow? Is it hard to find? No, it's not difficult to grow nor is it hard to find. *Psilotum* can be grown as a houseplant in the northeast and it grows in abundance in warm places. Apparently people in Japan were so fond of this plant that it was one of the most desirable ornamental garden plants for well over 200 years (1600 to 1850). Other cultures grew *Psilotum* and harvested its spores to be used as talcum powder. So this "rare to us" plant has not only been around for a long time, but also it has and still does see periods of explosive growth and popularity.



Text by Rensselaer County Master Gardener Inge Eley

What to do in April

* It's the time of year to get ready for being outside! The first thing you want to do is get your equipment and tools in order! Be sure you have what you need to make your spring clean-up enjoyable and the job easier.

* This is a good time to clean your garden tools and have any equipment sharpened for the coming season.

* Before starting to plant, take a soil sample into your local office of Cornell Cooperative Extension for a pH test. A soil test should be performed if the soil has never been tested. Depending on the area to be treated take sub-samples from up to 10 areas of your property and mix them into a composite sample. Dig to a depth of 4 to 6 inches in your garden or on established lawns 2 to 3 inches. Once you have the results of your soil sample follow the instructions.

* Start your plants seeds in doors if you haven't started yet. Keep them inside until the danger of frost has passed.

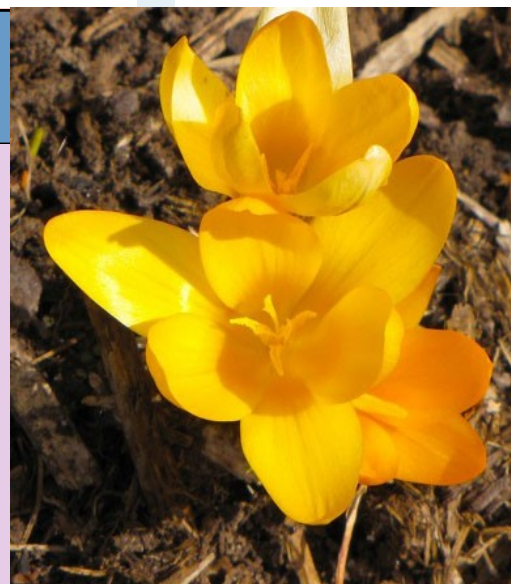
* This is the time to prune dead or damaged branches on your trees and shrubs. Prune summer blooming shrubs now, but wait to prune spring blooming shrubs until after they bloom.



* When it is dry enough to work outside it's time to clean up and pickup sticks.

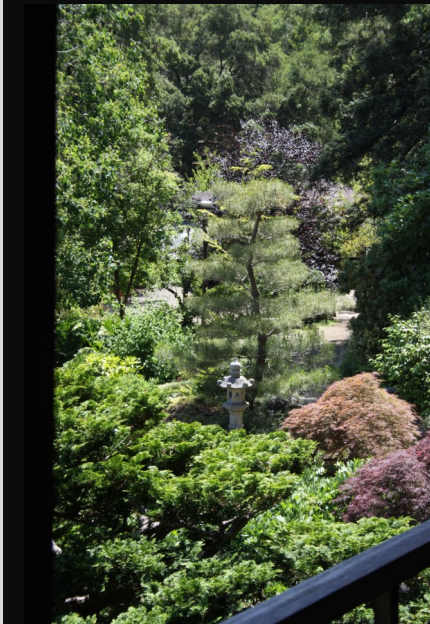
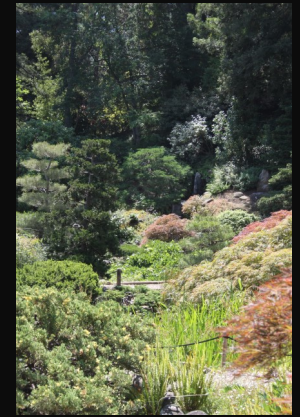
* Bare spots and damaged areas can be seeded with perennial ryegrass now, but remember that mid-August to mid-September is the best time to do major work on your lawn.

* This is the time to add mulch and soil to your gardens before the plants begin to show up. Mulch is usually on sale this time of year.



Green Shots: The Gardening World in Pictures

Our photos this month come from Rensselaer County Master Gardener Irv Stephens. Irv writes, "Located in Saratoga, CA about 12 miles west of San Jose, Hakone Estate and Gardens is one of the oldest Japanese gardens in the Western Hemisphere. It was built between 1915 and 1917 as the summer retreat of Oliver and Isabella Stine of San Francisco. The garden, modeled after gardens in the Hakone region of Japan, consists of 17 acres and includes a koi pond, three waterfalls, and surrounding gardens designed by Naoharu Aihara, an Imperial Gardener. Two buildings were designed by the architect Tsunematsu Shintani. Both buildings, the Moon Viewing Upper House, now used as a tea house, and a lower building that serves as the education center with an adjoining dry garden, are constructed using Japanese mortise and tenon techniques. The Moon Gate at the entrance and trails leading through a recently restored bamboo grove and around the hillside were later added by the subsequent owner, Charles Lee Tilden. The estate stayed in private hands until 1966 when its last owners sold it to the City of Saratoga, CA, in order to preserve the gardens. In 2000, the city set up the Hakone Foundation to manage and develop the property. In 2005 Hakone was used as the site for filming "Memoirs of a Geisha," winner of three Academy Awards.



Controlling and Subduing Unruly Tomatoes

Recently I spoke with a new backyard gardener who mentioned that last year his tomatoes had gone wild even after he had put them in cages. The vines got "tangly" and had refused to stay in their cages. Had his tomatoes really gone feral?

Experienced tomato gardeners, of course, know there are two kinds of tomatoes: determinate and indeterminate. Determinate plants, e.g. 'Valley Girl,' 'Defiant' and 'Celebrity,' typically grow to a height of around 3 to 4 feet, blossom and then all their fruit ripens within the space of 1 to 2 weeks. Indeterminate plants, e.g. 'Beefsteak,' 'Big Boy' and most heirloom varieties, can grow numerous vines from suckers that also turn into vines of 6 to 12 feet or more. Both types can benefit from pruning, and for most of us with limited garden space, some additional kind of vine management is also required. Without gardener intervention neither type will look like the neat and tidy tomatoes you see in most Internet or seed catalog pictures.

Now in fairness to those of contrary opinion, I acknowledge that there are gardeners who claim that except for removing the lateral shoots from the bottom 10" of any tomato to promote better air circulation, pruning is not necessary. And, I also admit I never pruned any tomato growing in my uncle's fields when I was younger, but my uncle had a lot of space and a lot tomatoes and we just let them sprawl on the ground. We lost some tomatoes to slugs and to our clumsy footwork, but we were satisfied with our yields for market.

The arguments in favor of some kind of pruning include: it increases the size of individual fruits by reducing the energy and nutrients otherwise devoted to plant growth, it allows for more exposure to sunlight, further minimizing the risk of disease from too much dampness, and it simply fits the plants into limited garden space. However, pruning implies that you also do employ some kind of vine support. Keeping the fruit off the ground decreases fruit loss from disease and damage from slugs and, maybe most importantly, averts some backaches later during harvest.

Cages & Staking for Determinates

By their nature, determinate tomatoes need less pruning to fit garden space than indeterminate varieties. The Internet is loaded with tomato pictures exhibiting various gardener techniques: single and multi-stick staking, inverted and pyramidal cages, simple vertical fences and all kinds of trellises. My experience with 'Celebrity' tomatoes is that cages generally need staking because heavy fruit loads require that cages may also need propping up even when I have limited plants to 4 shoots. I also space the plants at 3 to 4 foot intervals instead of the commonly stated 2 feet for determinate tomatoes because I like to be able to move around my plants easily. This also enables good air flow.



Staking cages to hold fruit. Source: Oldworld-gardenfarms.com



Wow! Overhead trellis for a single tomato plant.. Source: mothernaturenetwork.com

Dealing with Indeterminate Varieties

As we mentioned earlier, indeterminate tomatoes can produce long vines, and the vines will keep on growing and trying to set new fruit until killed by frost. Towards the end of a growing season it's a good idea to clip off vine leaders to stymie new growth and encourage the plant to focus its energy on existing fruit development. Because indeterminate vines can easily exceed 12 feet (20+ feet is not an uncommon length in green houses if a grower has pruned a plant to a single vine), it is necessary to provide a way to support (actually, suspend) the vine. Cages are not a good choice for indeterminates. The cages available from many big box and retail nurseries, even the large economy size cages, are simply too small, in my opinion, and much too expensive.

If you trim intermediate vines just to fit your cages, the yield will be greatly reduced; if you don't prune, the vines will continue to grow and either cascade down to the ground or land on an adjacent cage - soon creating a tomato vine jungle. Staking is also possible, but requires you to make or locate stakes long enough to hold long vines. With stakes you can control vine spacing better; otherwise they really offer little advantage over cages.

That said, some kind of trellising or fencing seems to be the better approach. Trellising also allows your imagination to get some exercise in design. A trellis can be as simple as growing a tomato along a fence (assuming you don't need to worry about either wild critters or neighbors, both of whom probably like tomatoes). Or, a trellis can be a simple A-frame design with its cross pieces lashed together for a season. A-frame trellises are popular in small gardens because they are quite stable, but reaching some areas might not always be easy.

I think a simple vertical frame (right) is better. It requires less material and less space. You can also reach both sides easily. The major drawback of a vertical design, however, is that the posts need to be firmly set because they will be exposed to dynamic loading: vines + fruit, multiplied by wind.

For either an A-frame or a vertical design you have choices about what to use and how to attach cross pieces. In either approach you can use cord, netting, wire cable or even sections of fencing attached to the supporting frames to bridge the openings between posts. Another variation, if you choose to prune to a single stem, is to simply attach a top cross piece between posts and suspend single strands from it for vines. The strands must be firmly secured at the bottom to keep the vines from blowing in the wind.

Last Words about Pruning

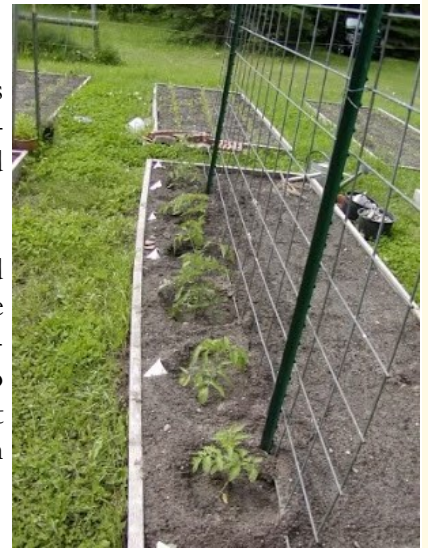
For determinate tomatoes in cages I usually try to limit a plant to 4 stems, but I do sometimes break my rule and go with 5 because I leave more space than is commonly suggested; and, because I tend to have more tomatoes than I have cages, I keep a supply of stakes anyway. But that's pretty much all I do. Remember, the stems of these guys only grow to a set height and a set number of fruit. By removing their side stems you are restricting how many tomatoes the plant will produce.

The indeterminate type, as already mentioned, are a different story. They will keep on growing and trying to start new vines. These start out as "suckers" (see diagram below) at a node just above a leaf stem. When you are growing this type of tomato, your trellis or frame decision will determine what your pruning approach will be. Allowing for 4 - 6 suckers to develop into vines is common. But if you think your growing season is long and only have a couple of plants, then you might think about letting a couple more lateral vines develop.

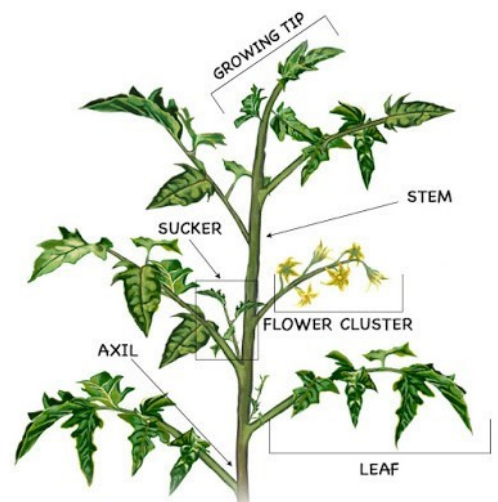
For commercial growers using support systems in either greenhouses, high tunnels or the field, a 4 vine approach seems to be considered the golden mean in that it balances a profitable yield against the labor costs involved in attaching additional vines to frames and regularly pruning them to remove their own new suckers.



Simple A-frame trellis. Source: freescortpost.com



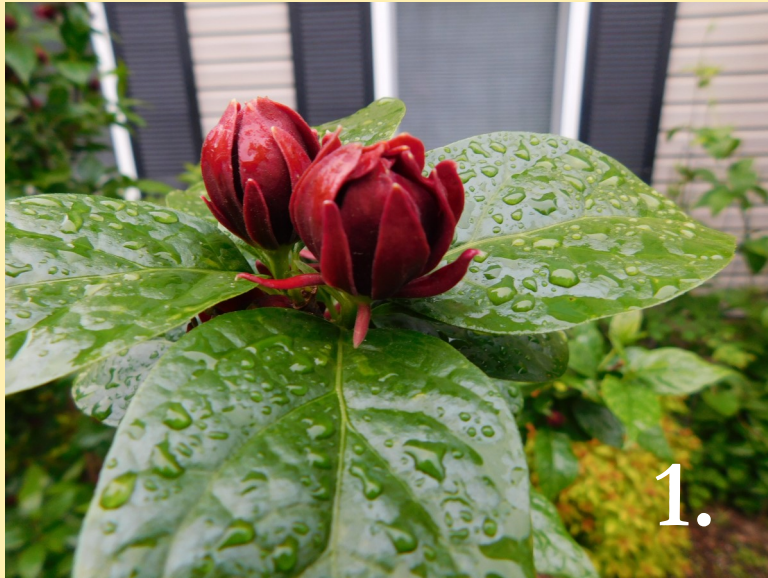
Simple vertical trellis. Source: tomatoville.com



Spring Is Here!



3.



1.



2.



4.

These photos come from the garden of Rensselaer County Master Gardener Beth Bechand who (before she became a gardener) used to think that October was the most exciting month of the year for enjoying colorful foliage. Hopefully, these images will inspire you to slow down and look closely at the amazing colors, shapes, and textures of the leaves of spring.



5.



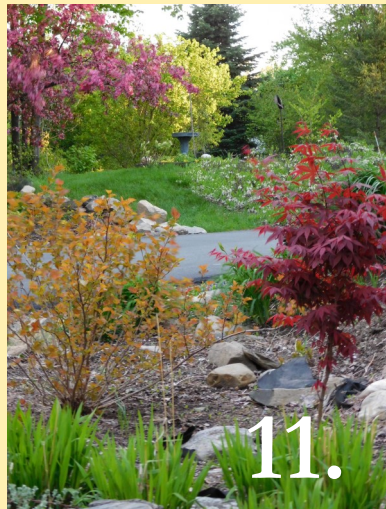
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7.



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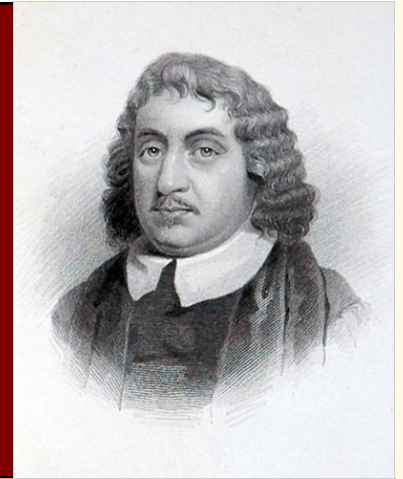


KEY

1. Carolina allspice 2. Columbine 3. Columnar oak 4. Green and gold bleeding heart 5. Red horsechestnut 6. Smokebush 7. Barrenwort 8. Japanese painted fern 9. Fringetree 10. Concolor fir 11. Color explosion! 12. Inkberry holly 13. Creeping sandcherry 14. Peony

“A good garden may have some weeds.”

Thomas Fuller (1608-1661, English churchman and writer)



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

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Cornell Cooperative Extension

Cornell Cooperative Extension of Rensselaer County's

Summer Gardening Programs



FREE Admission!

Rain/inclement weather at program start may cancel

Held at: *The Demonstration Garden at The Robert C. Parker School, 4254 Route 43, Wynantskill (North Greenbush) 12198*

“Introduction To Straw Bale Gardening” *Wednesday, May 15 from 7 to 8 PM.*

Planting vegetables and flowers directly into straw bales may sound odd, but it provides many advantages and amazing results! Master and Straw Bale Gardener Becky Raymond will show us this novel technique. Bring your garden soil for a free pH test, too!

“Starting Right With Tomatoes” *Tuesday, May 21 from 7 to 8 PM.* Tiny tomato plants are like puppies: they grow best with guidance. We'll discuss how to prepare the soil, plant, fertilize, water, stake and keep diseases at bay so your young tomato plants will produce a healthy harvest. Bring your garden soil for a free pH test, too!

“Perennial Plant Propagation: New Plants From Old” *Wednesday, June 5 from 7 to 8 PM.* Come watch Master Gardeners demonstrate various techniques to get new plants from your favorite perennial plants. We'll show simple division, softwood cuttings and other techniques you can employ at home, and giveaway some samples, too!

“Using Herbs Throughout The Seasons” *Tuesday, July 9 from 7 to 8 PM.* Explore the varied uses of herbs you can grow yourself, including for teas, medicine and cooking. The basics of growing herbs and of drying and storing them for future enjoyment will also be discussed by Master Gardeners led by Kathy Hartley and Janet Poole.

“Cooking In The Garden” *Tuesday, July 30 from 7 to 8 PM.* Back by popular demand! What can you do with summer's gorgeous produce? Using vegetables grown on-site Master Gardeners will prepare a variety of fresh and healthy dishes to share with the audience. Join us to learn new recipes and enjoy sampling some delicious summer foods! Master Gardener leaders will be Nancy Scott and Barbara Nuffer.

“Late Summer Is For Lawns” *Tuesday, August 13 from 7 to 8 PM.* Mid-August to mid-September is the best time for lawn weed management, overseeding, fertilizing, and renovation. Bring samples of problems (weeds, bugs, etc.) and we'll discuss options to improve your lawn for the future. Hosted by CCE Educator David Chinery.

“Great Tomato Tasting” *Tuesday, August 20, from 6:30 to 7:30 PM.* NOTE EARLIER START TIME! What's your favorite tomato? Come find out by tasting a wide variety of delicious tomatoes grown by Master Gardeners. We'll have some old favorites as well as some new top picks. We'll also talk about tomato growing challenges, so bring us your tired, your diseased, your dead specimens, yearning to be compost.

For more information, call Cornell Cooperative Extension's Horticulture Program at (518) 272-4210 or e-mail dhc3@cornell.edu **Directions:** From Interstate(I-90) Exit 8; east onto Rte 43; pass through Rte 4 intersection toward West Sand Lake; (approximately 2.1 miles); Left at Robert C. Parker School.

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Cornell University
Cooperative Extension

Plant Sale

Ptl. Arthur Chaires Lane, Central Park, Schenectady NY

VEGETABLES & HERBS

ANNUALS

NATIVE PLANTS & PERENNIALS

SOIL TESTING



Friday May 17

3pm-6pm

Saturday May 18

10am-2pm

Come join us rain or shine for

Garden Education Day

Sponsored by Cornell Cooperative Extension Albany County Master Gardeners

Saturday, May 18, 2019



Cornell Cooperative Extension Albany County
24 Martin Road, Voorheesville, NY



Garage & Bake Sale

Open at 8:30 am

Refreshments available for purchase

Plant Sale

Doors Open at 9:00 am

Tomatoes ☼ Vegetables ☼ Herbs ☼ Annuals ☼ Perennials
Hanging Baskets ☼ Gardening Tools ☼ Crafts ☼ Birdhouses

Please note: Due to the recent discovery of the invasive Asian Jumping Worm throughout New York State, we no longer accept donated plants. All plants at the sale have been grown from seed, plugs or cuttings in sterile soil.

FREE Educational Demonstrations & Displays



- ☼ Composting
- ☼ Native Plants
- ☼ Asian Jumping Worms
- ☼ Invasive Species
- ☼ Garden Tours
- ☼ Ask a Master Gardener

One Free Soil pH Test
(\$5 charge for each additional Sample)

**All proceeds from the sales help to fund the Cornell Cooperative Extension
Albany County Master Gardener Educational Programs.**



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Albany County

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REGISTRATION FORM

Name _____

Address _____

Phone _____

Email _____

# Attending	Cost
_____ Don't Get Ticked?.....	FREE
_____ Children's Terrarium Class.....	\$20 ea.
_____ Native Plants	\$25 ea.
_____ Container Herb Garden.....	\$20 ea.
_____ Introduction to Horticulture	\$595
_____ Little Diggers.....	\$80 per child
_____ Harvest Share Full.....	\$360
_____ Harvest Share Half.....	\$200

Total Remittance \$ _____

Please make checks payable to CCE,SC

and Mail to:
 Cornell Cooperative Extension Schenectady County
 107 Nott Terrace, Suite 301
 Schenectady, NY 12308-3170



Cornell University
 Cooperative Extension
 of Schenectady County

HARVEST SHARE 2019

Roots & Wisdom offers a unique vegetable-buying opportunity to the local community – HARVEST SHARE – a weekly program starting in June and continuing through September. Harvest Share brings together local consumers and a youth agriculture initiative.

Enjoy the bounty of the garden, including eggplant, tomatoes, summer squash, cucumbers, peppers, bunching onions, garlic, salad mix, different herbs, flower bouquets and more. Grown and processed by our youth participants naturally without any chemicals. All proceeds go back to support the program

• Full share \$360 • Half Share \$200

PICK-UP OPTIONS:

more information to follow

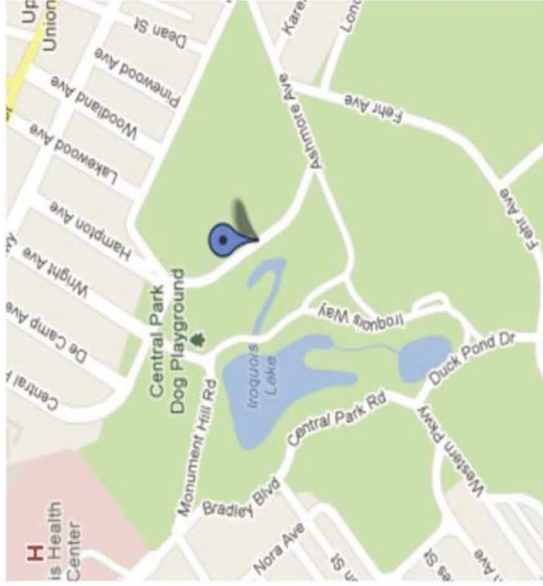
Master Gardener Plant Sale

Friday, May 17 • 3 pm - 7 pm

Saturday, May 18 • 10 am - 2 pm

Organically grown tomato and vegetable plants including heirloom and disease-resistant varieties •

- Herbs & Herb Containers • Perennial Plant Divisions •
- Native pollinator plants • Annuals •
- Miniature/Fairy Garden Containers • Raffle Baskets •
- Garden Theme Tag/Book Sale •
- Soil Testing, \$5.00 donation • Kids Garden activities •
- "Ask the Master Gardener" information table •



The Sustainable Living Center is located next to the tennis courts in Central Park, Schenectady, NY

The address is:
 180 Ptl. Arthur Chairès Lane
 (formerly 180 Courtside Lane)

All classes will be held at the Sustainable Living Center, unless otherwise noted

Visit our website:

www.cceschenectady.org

Individuals with special needs requiring accommodations should contact our office prior to the event at 518-372-1622 ext 259

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

Spring 2019 Classes

Introduction to Horticulture Wednesdays, February 27 - May 15 10-11:30 am

This certificate program is offered in conjunction with Schenectady ARC and Cornell Cooperative Extension, Schenectady County. It is appropriate for diverse populations, including senior citizens and individuals with intellectual and other developmental disabilities who are interested in hands-on training in the horticulture field and who would like to obtain employment in a garden center, farm stand or greenhouse. Topics include basic botany, care of annuals, perennials and vegetable crops, and weed identifications. Participants will gain experience in customer service, working and learning in a greenhouse, as well as a variety of outdoor garden settings. Classes will be held at the Sustainable Living Center at Central Park in Schenectady and the Schenectady ARC's Maple Ridge Horticulture Center in Rotterdam.

For more information or to sign-up, please contact Maria C. Kotary at (518) 595-1101 x4 — or to register — <http://sunysccc.edu/About-Us/Workforce-Development-and-Community-Education/WFD-CE-Course-Registration>
Fee \$595.00

Don't Get Ticked NY April 4, 6:00 - 7:30 pm

Avoiding Lyme and other tick-borne diseases requires avoiding a tick bite! Join Joellen Lampman as she talks about the different ticks in our area and their biology, the diseases they carry, and how to protect yourself and others from being bitten. Free tick removal kits will be offered to attendees willing to participate in a short survey. Free! Space is limited, please register by March 28.

February Break Week Kids Terrarium Class February 21, 10 am – 12 pm

During this class, students will design their own terrarium to take home, accompanied by fun and engaging experiments on soil pH and permeability. This class will raise your child's self-awareness of environmental issues while furthering their understanding of nature.

Ages 8 and up. \$20 per child. Please register with payment by February 14. Drop off welcome!



Native Plants - April 18, 6:30 - 8:30 pm

Are you tired of paying top dollar for your native plants? This hands-on workshop will teach you the benefits of native plants in the landscape, how to sow and germinate native seeds, and how to transition your seedlings successfully into the landscape. Included will be handouts with germination codes and instructions, seed sources, native plant suggestions for different types of sites, and your own assortment of containers of seeds ready to germinate. \$25.00 per person. Please register with payment by April 1.



Container Herb Gardening

May 9, 6:00 - 7:30 pm

This class will cover all the techniques necessary to create and maintain your beautiful container garden, such as plant selection and planting tips, design considerations, watering and fertilizing. Hanging baskets and placement of your container for greatest impact will also be covered. After the presentation participants will create their own container garden to take home. A selection of veggies and herbs will be available. \$20.00 per person. Please register with payment by May 2.

Little Diggers

Wednesdays, May 29 – June 26

Morning Session 10:00 – 11:15 am

Afternoon Session 12:30 – 1:45 pm

Preschoolers (age 3-5) will discover the wonders of gardening and nature through a series of hands-on educational programs. Each themed class introduces children to gardening including planting and tending the garden; harvesting and tasting, discovering insects in the garden such as ladybugs and butterflies, and much more! Cost is \$80.00 per child. Please register with payment by May 15. Limited need-based scholarships are available. If your child (or you) receives assistance or is eligible for special programs, he/she can be considered for a scholarship to the 2019 Little Diggers program.