Mountain biking isn’t a normal vehicle for botanizing, but you’d be surprised at what you can see if you dare take your eyes from the path. Riding along the Assabet River Rail Trail in eastern Massachusetts, I glimpsed a puffy pink form out of the corner of my eye. Although I hate stopping as much as Mario Andretti barreling down the straightaway, I turned my wheel around and confirmed that those shapes were indeed pink lady-slippers. And there were more here, several others along there, and another behind those trees. Not exactly what you normally find beside an abandoned railroad corridor, but the pink lady-slipper is a contradictory creature.

I think of *Cypripedium acaule* as rare — after all, how many places can you go to see one? But some of my wildflower books list it as “fairly common.” They might be found from Newfoundland west to Alberta then down to South Carolina, a huge geographic territory, but they require acidic soil in woodlands or perhaps a sphagnum bog. While I discovered them thriving near a path frequented by dogs, hikers and bikers, they are terribly difficult to grow in a garden, primarily because of their low pH requirement. They like life not only acidic, but very acidic, well below pH 5. To boot, any irrigation water given to a pink lady-slipper must be tart as well. A pink lady-slipper taken from the wild is therefore almost guaranteed a death sentence because these conditions are very difficult to achieve in cultivation. This is a plant which is best left alone and enjoyed in its native state. Fortunately, many of the other *Cypripedium* species are propagated by nurseries (which don’t collect them from the wild) and can be grown more easily.

If I describe *C. acaule* as a just two green ground-hugging leaves and one flower, it sounds like a very simple plant. But that one flower, plus the plant’s own personality, make it complex. The sepals and petals on the top of the inflorescence are usually yellow-brown or magenta, but...
the big, inflated pink, purple or rarely white pouch (technically, the labellum) is the star of the show and the reason for the name. This structure's purpose is to trap unsuspecting bumblebees who are lured by a promise of sweets. Once inside, the bee cannot turn around but is forced to climb a hairy ladder past the stigma, then journey below the pollinia, which doses the voyager with some male genetics. At this point *C. acaule* has a chortle because it doesn’t offer any nectar but now has its pollen on the move. If the bee hasn’t yet learned the joke but instead visits another flower, the pollen will be delivered to a female stigma, completing the act of gene shuffling before a second pollen load is picked up. But as author William Cullina writes, bees are fast learners and quickly tire of the game, meaning that few lady-slippers produce seed each season. Perhaps in this case it is the insect who has the last laugh.

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**Garlic: Plan Now to Plant in September**

Garlic is perhaps the easiest vegetable to grow. If you have the space, here are the steps:

1. Prepare the soil in mid September (as always, a raised bed works best).
2. Right around Columbus Day (it can be even later) plant the cloves (pointed side up) about 4" deep, 6" apart.
3. Cover with a thin layer of straw or your favorite mulch.
4. When the ground freezes hard, cover the bed with 4" of mulch.
5. In the spring (late March or so) pull back the mulch.
6. Around Independence Day the tops of the garlic will be turning brown. It's time to harvest. Carefully remove the bulbs from the ground (a pitchfork works well to loosen the soil so you can gently remove the bulbs from the ground).
7. Dry in a dry, warm location for a few days. Avoid drying in mid-day sun.
8. Cut off the stalks and store the bulbs in a cool, dry location.
9. Save the largest bulbs and use the cloves for your next planting.

**Notes:**

- The soil pH should be in the 6.0 to 7.0 range.
- Cut off the flower buds (scapes) when they appear (usually in mid to late June) - they'll drain energy from the plant. Cook them up - they're considered a delicacy.
- Garlic comes in three main types - hard neck, soft neck and elephant (elephant garlic is not a true garlic).
- Hard neck stores the best. Soft neck varieties are more suited to southern climates.
- You can buy your starter bulbs from the usual suspects, or attend a fall garlic festival and choose from several local varieties.
- Keep the soil cool as mid-summer approaches with mulch or companion plantings (such as lettuce).

One of the neat aspects of garlic is that the garden space it occupies from October to July can be used for fall crops such as kale, chard, collards, etc.

Text and photo by Rensselaer County Master Gardener Paul Zimmerman
I just have to speak up for a beautiful shrub that I enjoy seeing in late spring each year. A shrub I never hear anyone talking about. I am just tired of it not getting the respect it deserves! Years ago, well back in the 30’s and 40’s it got its due rewards, as it was an integral part of every landscape. But today, it gets no respect, and I’m just sick about it. (Well, I do exaggerate to make my point).

What is this plant you say? None other than the aptly named Beauty Bush. See, you have rarely heard it mentioned either. This is not just your parent’s shrub. This is an often overlooked but useful plant that just so happens to be very beautiful. Hello, common names are given for a reason! Maybe it’s because Beauty Bush, *Kolkwitzia amabilis*, is the only member of this genus? The genus name honors a 20th century German botany professor named Richard Kolkwitz. In 1923 it received the Royal Horticultural Society Award of Garden Merit (AGM), for Nymans Gardens, Sussex, United Kingdom. Maybe it’s because it is so adaptable and requires very little coddling to thrive? Maybe it is due to the explosion of suburbs? Maybe it’s because there are not a wide host of cultivars to choose from? Or maybe, it just needs to be “discovered” a third time?

In case you have not yet discovered the Beauty Bush for yourself, let me enlighten you. The Beauty Bush is a large shrub flowering in late May to early June, right after the spring flush but before the summer bloomers kick in. It grows eight to ten feet tall in a dense fountain shape. Beauty Bush blooms on long arching branches, first covered with dark pink, tubular buds which open to bell shaped, light pink, fragrant flowers. These blooms are a favorite of bees and butterflies. The birds are also attracted to the capsule-like fruit that persists after flowering. Its leaves are broad, dark green and about 3 inches in length. In fall they turn an unassuming yellow before dropping. The mature stems peel, exposing the light brown, flaky bark, adding to the winter interest. It can be used in the back of a perennial border, with other large perennials (like peonies, dwarf lilacs, etc.), in a mass or as a hedge.

Beauty bush will tolerate full sun and a clay soil. It is also not fussy about soil pH. It is hardy in USDA Hardiness Zones 4 through 8 and deer don’t seem to bother it, either! Pruning is simple; every year remove some of the oldest wood near the soil line and the natural arching of the branches and yearly explosion of flowers will not be affected. It’s form, growth rate and profusion of flowers is very much like the overused forsythia! What’s not to love?

Beauty Bush is also a good candidate to use as a fence line plant. All too often I am asked for a plant recommendation to “block out” the neighbors. I think I am going to do my part to bring this beauty back by making this plant my go-to for separating neighbors. Perhaps putting this “beauty” between them may actually bring them closer together.
With summer here, it is likely that everyone has their gardens well under way and their plants are thriving in the fresh air and rich soil. This season, with the help of many volunteers, Cornell Cooperative Extension of Schenectady County is growing, harvesting and donating over a 100 different varieties of vegetables in our garden located at the Sustainable Living Center in Central Park.

We first started to harvest cucumbers from the greenhouse in early June, as well as different kinds of kale, broccoli, collard greens, braising greens, scallions, dill, cilantro, basil, oregano, thyme, and sage.

Next to be harvested will be our many varieties of tomatoes. Did you know that there are numerous colors, starting with the traditional red as well as orange, yellow, brown, black, purple, white, and multicolored?

Each color has its own unique flavor. Some tomatoes taste better in salads, some are best for sandwiches, and of course, don’t forget tomato sauce.

How about carrots? Just like tomatoes, most people think carrots only come in one color, orange. However, there is also a wide spectrum of colors in the carrot varieties. This is most fortunate if you have a little one who refuses to eat carrots – try surprising them with a purple carrot!

Often we can be swayed by what is presented to us at grocery stores or considered to be the most common and beautiful varieties. However, the great part about tending to your own garden is that you can be creative and try new things. Going hand-in-hand with this is that you end up learning a great deal along the way and you enjoy the veggies of your labor.

So grab a seed catalogue, visit some other gardens, farms, or farmers markets, do a little exploring, and keep an open mind. What might you grow this season and what have you never tried before?

Come visit us in Central Park, Schenectady to learn about our urban farm. Volunteers are especially welcome, so please stop by and share your knowledge. We look forward to meeting you!

Text and photos by Hassleer Jacinto-Whitcher, Grower, Sustainable Living Center
The gods must be angry with us. Or, more likely, the increase in world travel and shipment of goods is transporting pests around the globe like never before. From the many examples I could grouse about, today I’ll alert you to downy mildew of basil. If you don’t grow basil, or if you don’t love pesto, Margherita pizzas or tomato, cheese and basil sandwiches, then you can skip this trauma and just fret over world events. But if you’re a basil aficionado like me, then please read on.

Basil downy mildew, a fungus-like disease, had its first U.S. finding in Florida in 2007 and made it here to New York the following year. We don’t know how much or just when it will show up each season, since it can’t take our cold winters and must be transported here anew. Like the anticipated return of a rare bird, this seasonal comeback makes folks in the know keep their eyes peeled for its return. So far this year, first-responder Meg McGrath, a plant pathologist at the Long Island Horticultural Research and Extension Center, reported finding basil downy mildew at a big chain garden center on June 14. She’s also getting reports of it from home gardeners, and notes in her blog that fellow pathologists have discovered it in several states already. The growing season is still young, but it appears that 2014 will be tough for the basil business.

Basil downy mildew can be tricky to detect if you aren’t in the know. The initial symptoms are a yellowing of the foliage from the bottom of the plant upward, a malaise resembling nutritional deficiency. However, this is a blight a little fertilizer won’t fix. Lurking on the lower leaf surfaces will be a fuzzy gray growth of mycelia. As the disease progresses, the leaves will eventually blacken and die. All of the myriad types of sweet basil (*Ocimum basilicum*) are susceptible, although some folks have noticed that purple-leaved and lemon types seem a little more resistant. Only varieties of *O. americanum*, a species primarily grown for medicinal purposes, have shown no symptoms or sporulation when inoculated with basil downy mildew. Perhaps some creative plant breeder can transfer this resistance to sweet basil and make a small fortune. As the disease doesn’t harm people per se, it is not dangerous to ingest a few infected leaves, but I can’t imagine it would be an appetizing experience, either.

It is difficult to outsmart basil downy mildew. If your plants bought from the garden center look fine, the problem may blow in on the wind. If you start your plants from seed, you aren’t home-free either necessarily, because this pathogen (unlike many others) can be carried by seeds. If your basil eventually becomes blighted, bag it and trash it immediately. Keeping plants well-spaced and watering early in the day so the foliage is kept as dry as possible are preventative measures. Fungicides can be used, but who wants to eat basil sprayed with fungicide? That doesn’t taste like summer.

For more information, check out the very detailed website provided by Cornell Plant Pathologist Margaret Tuttle McGrath at http://vegetablemdonline.ppath.cornell.edu/NewsArticles/BasilDowny.html

Text by David Chinery and photos by Margaret McGrath
This month’s photos come from Master Gardener Linda Ford. Linda writes, “Phil and I visited France in early June and were amazed how big and lush the plants were, especially the lavender and roses. In Paris we visited the Promenade Plantée built in 1993. It is a linear park three stories above ground level atop an old railway bed and nearly five kilometres long. This garden was the inspiration for the High Line in New York City. Jardin des Plantes, another garden we visited, is a 24 hectare botanical garden which includes several very large tropical greenhouses. This garden is set up more for instructional purposes than as a design garden.”
Yikes! Who Is This?

The Eastern-Eyed Click Beetle is hard to miss! This species of click beetle has two large black “eyespots” on its pronotum, surrounded by a thick, white ring, presumably useful in scaring off predators. Like all members of the Elateridae family, click beetles get their name from the sound they make when they flip themselves upright. The loud click is made when they snap a “spine” under their thorax, which propels them into the air and helps them turn right-side-up if they are on their backs. This strategy, too, may also aid in deterring predators. Larvae live in decaying plants and eat other insects living in the soil. Adults are often found in pruned trees from spring to autumn. Despite their scary exterior noise-making ability, they pose no threat to humans, pets, or plants.

Text by Master Gardener Kathy Henry and photo by Adam Adriance

BRUNSWICK GARDENS ON TOUR

The gardening gods smiled on the Master Gardeners on June 19 for their annual “Rensselaer County Garden Tour.” Sunny skies and mild temperatures blessed over 200 tour-goers who strolled through ten private gardens in the western section of the Town of Brunswick, just east of Troy. Flowers were sniffed, views admired, tricks and tips swapped, and a good time was had by all.

Thanks to Judy Brown, Pat Mulligan, Bette DiNovo and Norm Louis for the photos
*In mid-July your roses will appreciate some fertilizer.

*It’s the last chance to prune evergreens.

*Cut and preserve fresh herbs; they can be frozen or dried.

*Since July is usually the hottest month, your garden plants are going to need some extra help. Eliminate all the weeds which are robbing valuable moisture from your plants and providing insects places to hide.

*Keep weeding and re-apply mulch as needed.

*Stake tall, tender plants.

*Order bulbs for fall planting.

*Divide bearded iris after flowering.

*Give hardy chrysanthemums their last pinch in early July.

*If we have a heat wave, raise your mower’s height to highest setting to minimize turf damage.

*Hand pick and destroy pineapple-shaped galls on spruce (spruce gall adelgid) before August.

*Cut out and destroy brown, damaged leaders on white pine and spruce before late July to control white pine weevil.

*Keep pinching off the seed pods of hollyhocks and phlox so they will bloom again in the fall.

*“Deadhead” your annuals to encourage them to produce more flowers. This removal of spent blooms, accompanied by an application of fertilizer, will extend the beauty and pleasure of your planting farther into the autumn.

*Container plants may also require pinching back. Even if there is a lonely flower at the end of a straggly, leggy stem, prune it! The plant will respond promptly with new, thicker growth and a much more attractive appearance.

*It might be a good time to take a closer look at your houseplants. Whether they are inside or vacationing outside, they will respond nicely to grooming and feeding.

*The insect world is thriving at this time of year. Be observant! If you already know these predators and how to treat them, go bravely into battle. If you have an insect pest that you either don’t recognize or are unsure of the treatment, call or visit someone who knows, such as your Cornell Cooperative Extension. The offices are listed at the end of this publication.

Text by Master Gardeners Peggy Bloomwell and Warren Fescue.

Photos by Pat Mulligan, Norm Louis and David Chinery
“Now it is summer, and as usual, life fills me with transport and I forget to work. This year I have struggled for a long time, but the beauty of the world has conquered me.”

Leo Tolstoy (1828-1910)

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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“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.
Cornell Cooperative Extension of Rensselaer County's

Summer Gardening Programs

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

“Backyard Chickens 101” Thursday, June 26 from 7 to 8 PM. Having chickens in your backyard is one of today’s hot topics, but how do you get started? CCE of Rensselaer County Educator Kirk Shoen will tell us the beginning steps for success with a home flock.

“Weed Identification: Friends or Foes?” Wednesday, July 23 from 7 to 8 PM. Come learn about the many sides of weeds. Some are wildflowers, some garden invaders, some useful plants, and many are all of the above! Master Gardener Cathy Town will show us how to identify some common weeds as well as share some of their background lore.

“Country Garden Faire” Saturday, August 2, from 10 AM to 2 PM. Demonstrations, Plant Sale, Gardening Q & A Table, Raffle, Favorite Garden Tools Display, and More!

“Weed Management Basics” Wednesday, August 6 from 7 to 8 PM. Weeds are one of the gardener’s biggest challenges and there are several strategies to keep them at bay. We’ll look at various options, including both organic and non-organic herbicides, for weeds in garden beds as well as in lawns. Presented by David Chinery, CCE of Rensselaer County Educator.

“The Wide World of Grasses” Tuesday, September 9 from 7 to 8 PM. A discussion of the magnificent ornamental grasses found in the garden, as well as good grasses for lawns and the weedy grasses found in gardens and along roadsides. Presented by David Chinery, CCE of Rensselaer County Educator and Master Gardeners.

For more information, call Cornell Cooperative Extension’s Horticulture Program at 272-4210 or e-mail dhc3@cornell.edu

Directions: From Interstate(90) Exit 8; east onto Rte 43; pass through Rte 4 intersection towards West Sand Lake; (approximately 2.1 miles); Left at Robert C. Parker School.

Admission to all programs is FREE!
Rain or inclement weather at the start of the program may cancel it.

Individuals with questions or special needs requiring accommodation should contact Cornell Cooperative Extension at (518) 272-4210. CCE provides equal program and employment opportunities.
High Tea in the Memorial Garden

Sunday, July 13th
1:00 pm - 4:00 pm

Cornell Cooperative Extension Albany County
24 Martin Road, Voorheesville, NY 12186

Sweet and Savory Treats
Gourmet Teas by Divinitea
Tours of the Memorial Garden
Folk Songs and Oldies Performed by Cautiously Optimistic
Garden and Tea-Related Surprises!!

Tickets by Reservation Only; Seating Limited
$20 (adults) ☺ $15 (Children 12 and under) ☺ $30 (Mother/daughter under 12)

Reservations by phone 518-765-3516 or
e-mail: sep37@cornell.edu

Reservation confirmed by payment received no later than Wednesday, July 9th.
Rensselaer County Master Gardeners present

A Country Garden Faire

Saturday August 2, 2014

10:00 am — 2:00 pm

At The
Demonstration Garden at The Robert Parker School
4254 Route 43
(North Greenbush) Wynantskill, NY 12198

Demonstrations throughout the day
10:00 — Composting
11:00 — Herb Gardening
12:00 — Sharpening Your Garden Tools
1:00 — Garden Fairy Houses

Visit The Theme Gardens
Plant Sale
Q and A Table
Soil Testing Sample Drop Off
Favorite Garden Tools Display
Raffle

Free Admission!

See our website for updates and details:
http://www.ccserensselaer.org/Horticulture-Program.aspx

Cornell University Cooperative Extension

Individuals with questions or special needs requiring accommodation should contact Cornell Cooperative Extension at (518) 272-4210 or dhr3@cornell.edu. CCE provides equal program and employment opportunities.