THE UNIVERSITY OF VERMONT
EXTENSION
MASTER GARDENER

2020 UVM EMG Newsletter

Where Master Gardeners and Composters from around Vermont share their experiences, insights, and learnings after another year of gardening.

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In this Issue...

The Flower Power of Organization

By Christine Barnes
EMG Project Director
Northfield, VT

The cozy town of Northfield, Vermont is situated just off I-89 in Central Vermont. Home to the historic Norwich University since 1819, Northfield is surrounded by several gentle mountains and graced by the flow of the Dog River.

When the town of Northfield was established in the late 1700's, its early residents had the vision of a

village, which later developed into a town center called the Common.

Today, the Common is a gathering place for memorials, markets, and music, among other things and is enjoyed by the town's current population of approximately 6,200 residents. Over the past decade, the Common's garden spaces have grown increasingly vibrant. They are a joyful presence in the heart of this community, but the increasing workload has only been managed sporadically by a mere two or three dedicated citizens.

In May of 2018, three Master Gardener Interns and a Master Gardener Project Director stepped forward and decided that if we organized a mix of citizens and local Master Gardeners, the knowledge base, commitment and effectiveness would increase. Broadening the base of support would also allow for inclusion of nearby Northfield Falls project sites. Additional town resident gardeners increased participation numbers to a total of nine, and two more will join us in 2020 for a total of 11 gardeners, to manage a total of 17 gardens of varying size.

The structure of our work plan for the gardens increased significantly, with the responsibilities spread evenly over the group. Each gardener takes responsibility for one (or more) gardens. Gardeners work in teams. Planning, garden design, spring clean-up, prepping soil, mulching, dead-heading, watering and fall clean-up responsibilities are divided among the teams for their selected garden sites. Group meetings happen as needed. Teams can call on each other for support at any time. Master Gardeners sometimes integrate among the teams and sometimes work together on their own project. Master Gardeners have been called upon to give presentations to local organizations, and sometimes work with the local school on garden projects.

The Northfield Gardeners 2020, as we are now called, are loyal to our community businesses and purchase from our hardware store and local greenhouses. Support and appreciation from our town residents has grown: on a hot summer day, a passer-by will slip a cool lemonade into our hands, or often a freshly baked chocolate chip cookie will appear in a bag from a grateful community member. Donations for supplies and plants are increasing in support of our efforts, and the town is promising a budget for us in 2020.

With hard work and commitment to our community, we are continuing to bring to the Town of Northfield a strong work ethic, knowledge base and spirit. We learn from each other and the mission is shared and enjoyed by all. We hope you'll come and visit us!

Students' Garden Grows Imagination with Mystery Fruit

By Deb Curtis
Master Gardener since 2011
Barre, VT

As a Master Gardener and the coordinator for the Barre Town Crops by Kids garden, located at the Barre Town Elementary and Middle School, I spend a lot of time with students and teachers. Each spring the garden is planted by students, and families tend to the garden during the summer.

This fall, a group of second graders and I were exploring the garden during after school garden club. One area of the garden had pumpkins growing. As the class investigated the pumpkins, we noticed something different. A few of the pumpkins were smaller than the others, they were round, green and had small spikes all over them. Then we went to a different part of the garden to look at cucumbers. The students agreed that the pumpkins they checked out looked more like cucumbers than pumpkins. The students "flew" like a bee from the pumpkin patch to the bed with the cucumbers to illustrate pollination and concluded that the bees must have cross-pollinated the two vegetables. The students named their new vegetable a "pumpcumber".

To investigate further, the class cut the pumpcumber open. It contained small cucumber-like seeds and tasted exactly like a cucumber. (Remember, this was growing in the pumpkin patch at the other end of the garden from where the cucumbers were growing.) At the end of the day, each second grader showed the pumpcumber to the adult who came to get them. They were excited over their new discovery.

When I got home I went online to determine what we had growing in the garden. To my surprise, every site I visited declared that it was impossible to cross pollinate a cucumber with a pumpkin. *Hmmm,* I thought. The internet sources said it would be like breeding a dog with a cat—not possible!

I contacted Vern Grubinger from UVM. He wrote back explaining that it was unlikely that the garden had a cross between a cucumber and a pumpkin. He wrote, "All the literature states cucumbers and pumpkins are different species that do not cross. However, pumpkins that are of the species Cucurbita pepo can cross-pollinate with acorn squash, delicata squash, zucchini and other summer squash because they are all Cucurbita pepo. I am guessing that you had some seed in your garden (that came in from compost, or was left over from last year's crop) that was produced by such a cross-pollinated pumpkin. I am not sure why there as a cucumber smell but it's possible that the genes for that are also in some squashes".

This remains a mystery. What did we grow? It sure did look like a pumpcumber to me. What do you think?

We are always looking for EMG's to join us at the Crops by Kids garden. If interested, contact Deb Curtis at 802-272-5304 or by email at curt293@charter.net.

Container Gardening in Reused Baskets

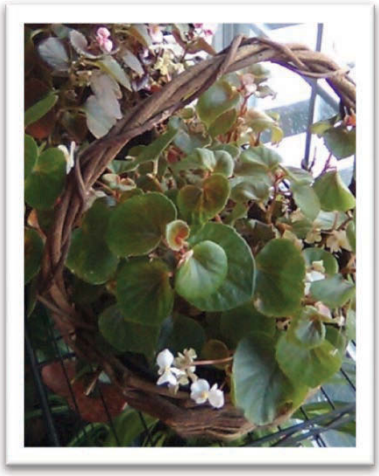
By Alma Beals
Master Gardener since 2012
Westminster, VT

Are you dreaming of a gorgeous garden but don't have ideal growing conditions, space or time? Herbs, small veggies, and many kinds of flowers grow very well in containers, including my favorite: baskets!

As a container gardener, I spend many hours at yard sales and flea markets looking for various-sized containers and baskets. I can't pass by a basket without picking it up. Many of my container gardens are made up of old baskets.

After I find a basket I like, I start thinking about how much depth the roots have to grow. It helps to be familiar with the growth habit of the plants being used. Generally, I give the plant just the space it needs and no more. Next, I think about where the basket will go. Will the area be sunny, exposed, shady or sheltered? If I plan to hang the basket, I use a soil mix because it's lighter.

Every April or early May, I start my baskets of pansies. Those happy faces are my first touch of spring. They are hardy but if a hard freeze comes along, I just pick up the basket by the handle and set it inside. Sometimes I plant the pansies in a soil mix, other times I leave them in their pots and just plop them in the basket. The advantage of leaving annuals in their pots is that by late June, they begin to look pretty leggy and I usually replace them with something else.



When I replace the pansies in early summer, I use colorful annuals and crowd them together. Unlike my outdoor gardens where I give plants space to grow, I plant flowers close together in my baskets for a mass of blooms. Regular deadheading and pinching back makes them bushier. Containers are also a great way to experiment with a new plant you see advertised. And if it's a loser, I can easily replace it.

In the fall, I fill containers with yellows, oranges and a few reds. I like chrysanthemums around gourds and pumpkins. Then later in the fall, I add vines like Virginia creeper—not the *Oriental bittersweet* though, because it's invasive.

And at the end of the season, I can bring my baskets of plants into the house where they can be enjoyed even longer.

Keeping Contamination Out of Compost

By Julie Marks
Master Gardener since 2019
Jericho, VT

I started a garden to be closer to my food source. As an Environmental Health Scientist, one who studies pathways of pollution in our environment and how it ends up in our bodies, I am particularly privy to the many opportunities for contamination in food supply chains. A backyard garden felt like the best way to (eventually) control every step of the process and protect my household from pesticides, plastics, and other pollutants.

I live in the woods. The sunniest spot in my tree-filled yard requires raised beds. So I purchased a blend of soil and compost from a local supplier to fill my 8 beds before planting my first year of seeds. The delivery truck came and nine yards of sweet, musty smelling earth tumbled out onto my driveway, forming a mountain of rich, chucky soil. It was beautiful. I couldn't wait to dig in to what I thought was the clean, nutritious "black-gold" beginning for my new garden.

The first piece of plastic I picked out of this gorgeous pile of earth didn't alarm me. I expected a little contamination. Then I saw another piece, then another, and another. After four hours of shoveling soil into my garden beds, my pockets were bursting with dirty trash: bits of plastic film, tines of bioplastic forks, stickers from produce, shards of rigid plastic and sharp glass, broken plant tags, and bottle caps, to name a few. I was slightly disgusted, but planted my seeds and tried to move on. Then a couple weeks later, it rained—hard—and up came more plastic. Hundreds of buried fragments floated to the surface in each flooded bed, and swirled around my seedlings. I was aghast at the sheer amount of plastic hidden in my raised bed soil. And I knew there was more where I could not see.

I know plastics. Plastics can contain chemicals linked to cancer, infertility, hormone disruption and

other unwanted health effects; chemicals including phthalates, paraffins, and flame retardants. Most of these chemicals are able to migrate from their plastic "host" into other mediums like food, water, soil, skin, oils, air—whatever it is they are touching[1]. This soil-compost-plastic blend was not what I envisioned for my "organic" backyard veggie garden.

Plastics, both macro- and micro- in size, can have impacts on soil. It can affect soil microbial communities, soil structure and water percolation, and introduce pollutants which can be taken up by the plants that I intend to eat[2,3]. I have also observed song birds swooping down to grab pieces of colorful plastics and glimmering glass out of my raised beds—and that can't be good.

Admittedly, I am biased. I harbor a rooted fear and loathing of plastic—even if most of the nasty chemicals have already leached out into someone else's environment. I was irritated having just paid good money for unwanted plastic sprinkles in my soil, but I also felt saddened by the realization that Vermont's commercial compost is so contaminated.

Why don't people take stickers off their avocados and oranges before chucking them into the compost? Why are people fooled by greenwash marketing claiming disposable products are biodegradable when, in fact, they are not? Plastics will not decompose in our lifetime. Most bioplastics do not biodegrade either—not completely—and not within the time they spend in the commercial composting process[4,5]. With statewide composting mandates approaching, I fear that the widespread lack of understanding around what actually composts in our commercial composting facilities will lead to dirtier compost for us all.

Purchasing contaminated compost is not for me. I, for one, made the switch to home composting after taking the Master Composter course last year. In 2020, I hope to apply my own compost—a cleaner compost—to my raised beds and other perennial gardens. And while I am sure to be stuck picking plastic from my garden beds for years to come, I hope to find a way to support cleaner composting efforts in my community. Commercial composters need our help to produce cleaner compost. Composting is a good thing. But good things are only good if they're done well.

A True Gardener's Approach to Gardening

By Bob B. Little Tree
Master Gardener since 2008
West Hartford, VT

Long before I became a Master Gardener or a Gardener for other people, I was still a Gardener. I worked in the community gardens at Akwesasne and maintained my own vegetable gardens since 1980. I was one of the first organic vegetable gardeners distributing to health food restaurants and stores in my community.

Over the many years I have worked as a professional Gardener, I have found it necessary to draw attention to why I now call myself a "True Gardener".

[1] Hahladakis, J. N., Velis, C. A., Weber, R., Iacovidou, E., & Purnell, P. (2018). An overview of chemical additives present in plastics: migration, release, fate and environmental impact during their use, disposal and recycling. *Journal of hazardous materials*, *344*, 179-199.
[2] Cattle, S. R., Robinson, C., & Whatmuff, M. (2020). The character and distribution of physical contaminants found in soil previously treated with mixed waste organic outputs and garden waste compost. *Waste Management*, *101*, 94-105.
[3] Esan, E. O., Abbey, L., & Yurgel, S. (2019). Exploring the long-term effect of plastic on compost microbiome. *PloS one*, *14*(3).
[4] Narancic, T., Verstichel, S., Reddy Chaganti, S., Morales-Gamez, L., Kenny, S. T., De Wilde, B., ... & O'Connor, K. E. (2018). Biodegradable plastic blends create new possibilities for end-of-life management of plastics but they are not a panacea for plastic pollution. *Environmental science & technology*, *52*(18), 10441-10452.
[5] Muniyasamy, S., Ofosu, O., John, M. J., & Anandjiwala, R. D. (2016). Mineralization of Poly (lactic acid)(PLA), Poly (3-hydroxybutyrate-co-valerate)(PHBV) and PLA/PHBV Blend in Compost and Soil Environments. *Journal of Renewable Materials*, *4*(2), 133-145.

A True Gardener is responsible for keeping order and harmony between all living beings in the garden, and that includes the soil as well. To do this, a True Gardener not only has to possess volumes of knowledge and know how to obtain information, but also has to be at peace with the work they do in other people's gardens. This is why a True Gardener is never, ever in a hurry.

A True Gardener takes time to communicate not only with the plants in your gardens but with all the other beings that share that environment. So not only do I take time to talk with the plants, but also the spiders, ants, wasps, worms, birds, caterpillars, and many more. A True Gardener takes in the whole picture and the longevity of health in your gardens for many seasons to come.

When I become the Gardener at a new place, there is usually a lot of work and catching up to be done; rarely does that happen in one season. A True Gardener understands this and sees where gardens can evolve. Most True Gardeners are not in it for the money but for the peace, independence, solemnness and pace.

Yes, as a Master Gardener I have earned the right to call myself a Landscape Artist, but I refuse to do so. Gardeners may be a dying breed in America but we will never bring you poor, devalued workmanship. True Gardeners are more than that.

Tulip-Inspired Travel

By Carol Bacon
Master Gardener since 2001
North Springfield, VT

Last spring, I took a tour of the Netherlands with Elderhostel. The highlight of the tour was the visit to the Keukenhof Gardens. There are acres of bulb plants, mostly tulips. It was a lovely display

of different types and colors of tulips.

Growing bulbs to sell is a large industry for the Dutch. There are many fields of tulips being grown for the bulbs. Once they start to bloom the flowers are cut off so the energy will go into the bulbs.

Tulips grow well in areas with cold winters—like Vermont and the Netherlands. Bulbs are planted in the fall and bloom in the spring. Gardeners in southern states have to chill the bulbs in refrigerators for weeks before planting to get flowers.

Many people grow tulips as annuals. They bloom well the first year but have fewer flowers the next year. After that, the plants decline to leaves with few or no flowers. I have mostly stopped growing tulips because mice that dig in the ground eat the bulbs or when I have been lucky enough to get flowers, deer strolling through my yard at night have found them and eaten them.

For me, daffodils and narcissus are a good solution. They come in many shapes, sizes and colors and nothing eats them. They usually continue to bloom

for years and some even increase and have to be dug up and thinned.

Visiting the Keukenhof Gardens with thousands of tulips in bloom was an amazing sight and a delightful experience. I recommend the trip to anyone in awe of tulips!

How to Battle Japanese Knotweed and Win

By Dottie Sundquist
Master Gardener since 2009
Bennington EMG Chapter Chair

Armed with knowledge and backed by experts in the field, a small group of friends and neighbors from Sandgate, Vermont gathered on the second and fourth Monday of June to September 2019 to combat our collective enemy: the invasive Japanese Knotweed.

We chose a site located at the dry hydrant pull-off, a heavily travelled main road leading into Sandgate with the goal of sparking maximum public curiosity and awareness.

The results were immediate! In a single day, the wall of Knotweed was brought to its knees, revealing a peaceful river and the perfect spot for a shallow summer dip on a hot humid day.

The public noticed too. Hunches and questions began flying around town. What was that big black plastic mound lying at the side of the paved pull-off?

Have a growing mass of Japanese Knotweed near you?

It's time to wage war against this invasive species and protect our native landscape. Here's how:

Step 1: Plan Your Attack

Japanese Knotweed (*Polygonum cuspidatum)* grows with complete abandon sending underground roots up to forty feet from the center of the mother plant. Colonies sprout ad infinitum. Control begins by walking a forty-foot perimeter from the center of the growth. Repeat until you see no more. Once a perimeter is formed, begin removal of the plant from the outside and move toward the center.

Attacking from the outside of the infestation where the plants are smaller and fewer seems less rewarding. Everyone tends to want to get the biggest bang for the buck and chop down the tallest, densest area first. A change of mindset is needed to win over Japanese Knotweed. The roots are akin to a wildfire spreading invisibly underground fooling the blind eye. One MUST stop the invisible roots from spreading out from the central plant by attacking an infestation from the outside perimeter. You may not be able to kill it all but you will be able to create preservation pockets and prevent further advancement.

Step 2: Cut, Bundle & Bake

At a Forest Hero workshop sponsored by VT Invasives[6], I learned that the best way to kill and dispose of the unforgiving plant is to cut it, bundle it, and bake it. I located a 10' x 25' roll of heavy-duty black plastic at a local hardware store and we made a "burrito bag". We cut and placed stalks of Knotweed in a large pile placed in the center and toward one end of the unfurled roll. Excess plastic was folded over the pile and secured with stones.

Step 3: Cut Off the Energy Supply

Every two weeks, we returned to cut, bundle and bake the short stalks that were just beginning to leaf out. Herein lies the genius! First, allow the energy stored in the plant's roots to travel up the stalk and begin producing leaves. Second, activate a photosynthesis intervention by cutting the leaves before they have a chance to fully open and gather light energy.

Remember, timing is everything. Japanese Knotweed is a master of storing energy. Simply cutting stalks before leaves are forming does not deplete the energy source. Leaves forming is evidence that energy is being released. Open leaves are evidence that energy is being replaced. I repeat: cut the leaves before they have a chance to fully open!

Step 4: Don't Give Up the Fight

Continue your cutting every 2 weeks until the energy storehouse is completely depleted and the plant succumbs. How long will it take? Possibly up to five years. It's a big job for one person, so organizing a group of committed 'Knotweed Warriors' can help keep

[6] The Forest Hero Network is a collaboration between Vermont Coverts: Woodlands for Wildlife, Vermont Department of Forests, Parks & Recreation, and VTinvasives.org

up the fight. Don't forget, your effort in the battle against Japanese Knotweed is paramount in protecting and preserving Vermont's natural landscapes.

Not all invasive species plants are created equal and not all plants are maintained or eradicated the same way. Learn more about the effects invasive plants have on our native plants and animals, and how to identify and deal with unwelcome plants at: www.vtinvasives.org.

Getting Started with Vegetable Gardening

By Jennifer Munro
Master Gardener since 2019
Hampton, NH

There's nothing like a home-grown cucumber, still warm from the sun, or a sweet sugar-snap pea, wet with morning dew. Whether you're a seasoned perennial gardener making your first foray into kitchen gardening, or new to gardening entirely, here are some of my basic tips for getting started.

Start Small…

Don't start plowing the back 40 just yet! Preparing a first-time vegetable garden, whether you're tilling a section of lawn or preparing a raised bed, can be time consuming – and keeping it watered, nourished, and weed-free is no small task, either. Start small, perhaps with a raised bed or even moveable containers, until you figure out what works for you. You can always expand next year, but you won't be overwhelmed.

…But Not Too Small!

While many vegetables can be started from seed indoors, or seeded directly in the garden bed, purchasing healthy seedlings from your local nursery will give you a leg up on the growing season (it's a short one up here – I'm looking at you, NEK!), and the fact that they have

been growing for 6+ weeks means they'll have a fighting chance against mother nature. Just be sure to harden off any greenhouse-grown plants and wait until the danger of frost has passed.

Keep Your Friends Close, and Your Enemies Closer

When choosing a site for your garden, there are considerations beyond the amount of sun a particular location receives (a minimum of six hours per day), but where you situate your garden is just as important. Positioning your garden close to your back door serves several purposes: first, it's easier to keep tabs on water requirements, pests, etc. Second, critters are less likely to browse the garden when they know people are nearby – even just the sound of humans going about their business in the house can be enough of a deterrent.

Feed Your Food

Soil health, which includes drainage; organic content; nitrogen, phosphorus, and potassium levels; trace elements; and pH, is the single-most important factor in ensuring a successful vegetable crop. A simple soil test can tell you everything you need to know before you start planting and is readily available from your cooperative extension. Container and raised-bed gardens have additional requirements as a result of the space limitations and can benefit by alternative planting media and more frequent fertilization.

Instant Gratification

There are a number of vegetables that provide the gardener with almost instant gratification – lettuce, spinach, and radishes all take less than 30 days from seed to sandwich, and because they're considered cool-weather crops, a second batch of seeds can be sown in August for fall harvest. Start with easy-to-grow veggies to increase your chances of success.

Meet the Neighbors

Say hello to a neighbor whose garden you have admired, or visit your community garden. Most folks love talking about their gardening experiences, and will be more than happy to share tips and tricks. They might also be willing to swap a few plants – trust me when I say that *no one* needs a six-pack of zucchini plants!

Document!

It's helpful to keep a record of what you planted, how many, and when – as well as what worked and what didn't from year to year, so that each season is an

improvement over the previous one. It could be as simple as a spiral notebook or an Excel spreadsheet, and there are free and paid websites and apps as well. Be sure to take pictures – it will help you resist the urge to overbuy and overplant next time around, and it gives you something to dream about over the long Vermont winter.

Sources: Work Smarter, Not Harder, in the Garden, by Charlie Nardozzi, New England Vegetable Management Guide, Square Foot Gardening, by Mel Bartholomew

From Urban Greenbelt to Pollinator Garden

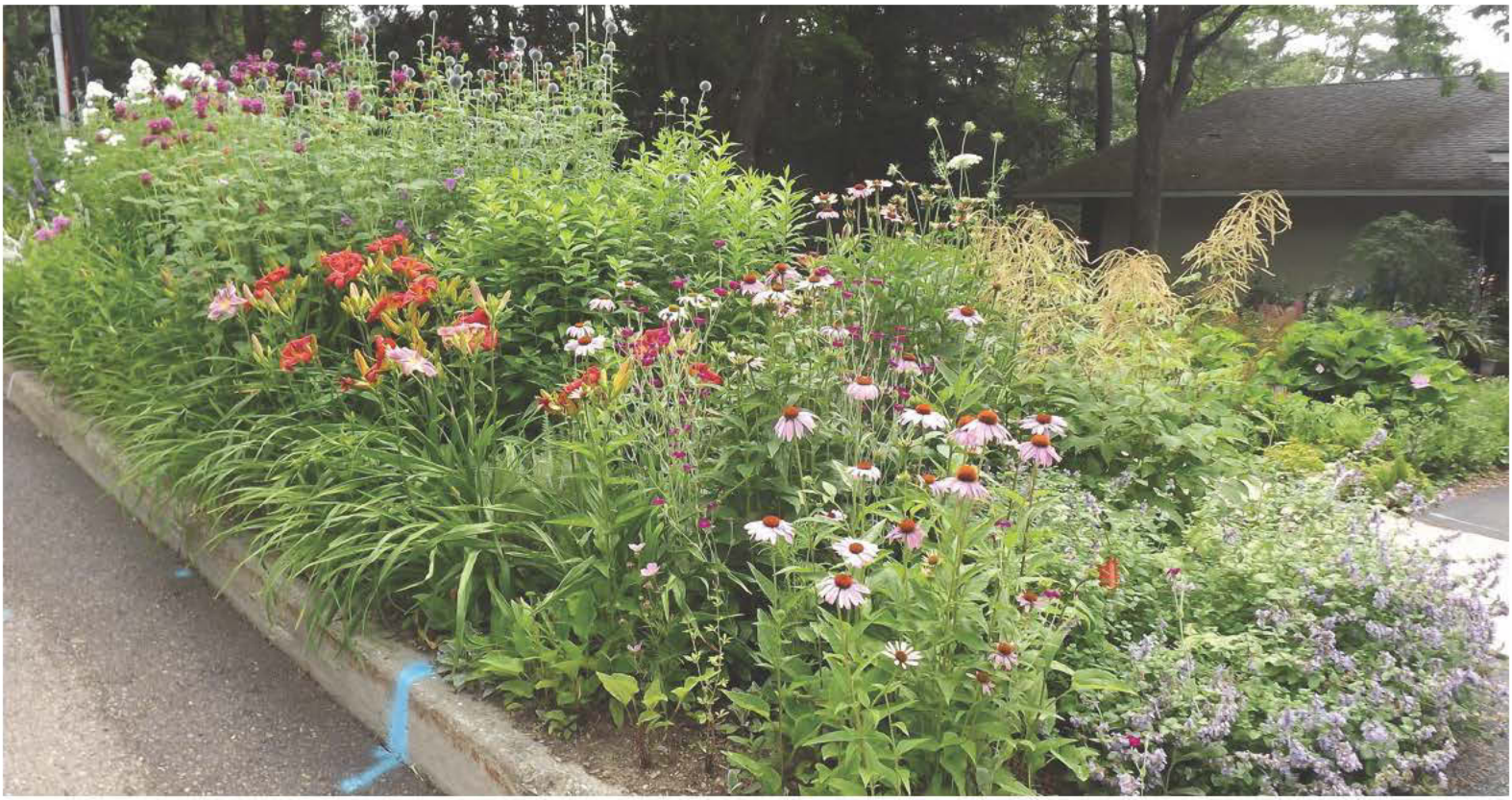
By Tom Hudspeth
Master Gardener since 1997
Burlington, VT

When we moved to the south end of Burlington 12 years ago, I dug up almost all the grass lawn in our yard—keeping only a 10-foot diameter section where we had lawn chairs—and replaced it with native plants and cultivars. Because I was concerned by the decline in numbers and health of pollinators like bees, butterflies, moths, and bats—especially with increased use of insecticides with neonicotinoids and herbicides like Roundup—I wanted to plant a pollinator garden.

Most of our yard is very shady, with lots of hemlocks and white pines and a few white cedars. Just about the only place that had enough sunlight each day during the growing season to support pollinator plants was the greenbelt/treebelt verge—the 8-foot wide strip of land between the street and the sidewalk which actually belongs to the city, but the near-by homeowner is expected to maintain.

I checked with then-City Arborist Warren Spinner to make certain it would be all right for me to replace the grass there with pollinator-friendly plants. He said I could do so as long as I did not plant marijuana and kept the area neat and tidy and did not have real tall plants like sunflowers that might lean or fall into the street or
sidewalk. He also reminded me that there are usually lots of utility lines (electric, telephone, cable, gas, etc.) buried in the greenbelt, and I should contact Dig-Safe before doing any digging.

I carried out the conversion. The pollinator plants I used were mostly from divisions of plants I already had around the yard or ones I bought at plant sales.



My favorite flowers for pollinators are: globe thistle (*Echinops*), beebalm/bergamot (*Monarda*), coneflower (*Echinacea*), black-eyed Susan (*Rudbeckia*), butterfly plant (*Asclepias*; native common milkweed can get a little messy for an urban garden, so I prefer the colorful cultivars), *Phlox*, cranesbill (*Geranium*), daylilies (*Hemerocallis*), sneezeweed (*Hellenium*), yarrow (*Achillea*), aster (*Symphyotrichum*), tickseed (*Coreopsis*), Joe Pye-weed (*Eupatorium*), anise hyssop (*Agastache*), spiderwort (*Tradescantia*), turtlehead (*Chelone*); and some larger butterfly bush (*Buddleia*), false indigo (*Baptisia*), and goatsbeard (*Aruncus*).

The garden met the criteria to be a "Wild for Pollinators" garden, so I registered it and received a sign, which I placed on the street side of the garden to help raise awareness of the importance of pollinators and encourage the creation of more pollinator and beneficial insect habitat across Vermont.

Youth from several camps and day care centers have come to see the garden and pollinators. One group, as part of a STEM unit on conducting a population census, used string to divide my main 100' x 8' garden into smaller sections, and then estimated 400 pollinators in the garden, including one hummingbird….and that was on an overcast afternoon. And we counted 22 pollinators—mostly tiny stingless bees, a few honeybees, 2 bumblebees, and a Monarch butterfly—on a single *Echinops* flower, their combined weight causing it to bend down.

I suspect that many Extension Master Gardeners in Vermont have plenty of sunlight in their yards and do not live in urban areas with greenbelts, and so they can plant pollinator-friendly plants in numerous locations around their homes. But there are several other initiatives and creative places to plant pollinator-friendly plants in places besides greenbelts, such as between rows of solar panels in "solar orchards" and adjoining both entrances to covered bridges throughout Vermont. I hope that all Master Gardeners across the state will find ways to contribute to Vermont's bounty of prolific pollinator gardens.

Recommended Native Plant Growers:

- Northeast Pollinator Plants, online/mail order: http://www.northeastpollinator.com
- North Creek Nurseries, Landenberg, PA: http://www.northcreeknurseries.com
- Van Berkum Nurseries, Deerfield, NH: http://www.vanberkumnursery.com
- Found Well Farm, Pembroke, NH: http://www.foundwellfarm.com

- Native Haunts, Alfred, ME: http://www.nativehaunts.com
- Pierson Nurseries, Dayton, ME: http://www.piersonnurseries.com
- The Farm Between, Jeffersonville, VT: http://www.thefarmbetween.com
- River Berry Farm, Fairfax, VT: http://www.riverberryfarm.com

Transforming a Rocky Hillside into a Productive Perennial Garden

By Liz Schafer
Master Gardener since 2018
Pawlet, VT

What began as an effort to create an attractive setting for my house has led to an earnest attempt to integrate nature and encourage biodiversity. When I first bought my hardscrabble half-acre plot seven years ago, the house was flanked by two steep slopes that led up to the back of the property and a lovely view too difficult to access. The front overlooked the road from the top of a precipitous bank held back by a tangle of sumac, honeysuckle, Virginia creeper and grapevines; it offered sun, but had only been used for parking. The poor side lawn was contained by mixed deciduous woods with an understory of garlic mustard and honeysuckle. It was late fall when I moved in; I had little time to consider where to plant the few perennials I had brought with me before the ground froze. I chose a sheltered spot and began digging; every shovelful yielded more rocks than soil, revealing the property's most prominent characteristic. (I've since come to think of it as my own personal quarry).

I spent that winter thinking about what I wanted from my landscape: a kitchen garden for vegetables and herbs; planting beds for cane fruits and flowers; a picket fence for privacy; a seating area; a more leisurely ascent to the back view. I also wanted to be able to look out my front windows and see nature, not my parked car. My limited budget drove me to research ways to achieve all this inexpensively, but I realized that many of these approaches could also benefit the environment. I especially like the concept of Permaculture, which Merriam-Webster defines as 'an agricultural system or method that seeks to integrate human activity with natural surroundings so as to create highly efficient self-sustaining ecosystems.' It was inspiring to learn that I could work with the resources my property already provided to create an attractive, low-maintenance landscape.

Armed with this new knowledge, I was ready to get to work long before mud season ended that spring, and I began construction of a hügelkultur using deadfall and other debris along the front bank to contain erosion. I dismantled my moving boxes to sheet mulch the slope to the left of the house, and when the soil was dry enough, I began creating terraced planting beds there. Every night for months after my day job, I threw on my work clothes and a sturdy pair of boots and worked on my hands and knees until dark with a pick axe with the enthusiasm of a treasure-hunter.

I planted strawberries and raspberries there when I finished the project, but in the second year, the strawberries were invaded by chipmunks. Rather than endure an ongoing battle for supremacy with the pesky rodents, I moved them closer to the house and planted a variety of sedums instead, which provide texture and color and are fairly low maintenance. They also make a nice backdrop to the raspberry canes, which the chipmunks don't seem to bother.

The third year, I hired a friend to build a small garden shed and a chicken coop, using what salvage materials I could procure. I built 24 feet of picket fence using pallets and recycled posts. The rocks dug up for the post holes were used to fashion a stone wall along the perimeter of the front bank. Leftover roofing shingles were placed on the ground behind the shed to provide sure footing to the garbage and recycling bins. It gave me great satisfaction to know that I'd saved a great deal of money – and kept things out of the landfill.

The shed went into immediate use to store my garden tools and supplies; where they had been kept against the far side of the house, I installed my grandmother's old cast-iron kitchen sink to use as a potting bench. I then turned my attention to safeguarding the chicken coop by digging a trench all the way around and burying wire fencing before I was ready to adopt my three hens. In addition to supplying me with eggs, they contribute soil-building manure and eat ticks and other pests.

My final garden project last year was the long-awaited construction of a raised garden bed where I used to park my car. This year, I plan to extend the picket fence so the hens can still free range while my vegetables remain protected. I will also begin to tackle the bank to the right of the house to

form wider terraces stepping up the hill to that wonderful view. The abundant sun there will allow me to plant dwarf fruit trees and blueberries, whose roots will help keep the soil from eroding.

I'll also be planting perennial crops like rhubarb, kale, garlic and scarlet runner beans, incorporating the concept of no-till gardening by allowing plants to compost in place at the end of the season. I'll also continue to add to the hügelkultur, as I have every year; it has become important habitat for birds and other small critters.

It has taken me seven years, but at this point I feel that the structure I had originally envisioned is complete. The spot where I hurriedly plugged in my perennials is now a legitimate garden punctuated by small native shrubs. There is half as much lawn to mow; native shrubs are slowly replacing invasives; flowering perennials are attracting pollinators; and the fairly poor soil has improved with every application of compost. That said, I've only just begun! Future landscaping projects will include capturing rainwater; replacing lawn with low-growing groundcovers; and installing solar power to the chicken coop.

Horticultural Therapy for Memory Loss Patients

By Jennifer Trapani
Master Gardener since 2020

Step into the Secret Garden, and begin a sensory adventure of a lifetime. Run your fingers through the raised-bed herb garden - does the smell of fresh basil unlock memories of your mother's homemade sauce? Or perhaps you would like to sink into the cozy bench positioned against the fence surrounded by Dipladenia and daydream about the spring bulbs you once planted with your grandfather. From this vantage point, you can look out across the Secret Garden and see the dark purple pole beans climbing the fence, contrasted against their lush green foliage. As you rest, you hear songbirds chirp and see butterflies fluttering from flower to flower, doing their part to aid pollination. This Secret Garden affords you a peaceful space to daydream and be reminded of past memories while presently stimulating each of your senses.

As part of the Horticultural Therapy Team under the direction of Donna Covais, a registered Horticultural

Therapist with many years of experience, we primarily serve individuals experiencing memory loss (largely dementia and Alzheimer's disease) at the Adult Day Memory Center in South Burlington and occasionally at The Arbors in Shelburne for specialized programming. Together, our team works to promote psychological, physical, social, and educational benefits by utilizing plants in a variety of hands-on activities. Of course, this is a technical definition of what we do, but what does this look like in practice?

Horticultural Therapy sessions are opportunities for participants to connect with natural and living things

in a safe and supportive environment where we minimize risks and maximize sensory exploration. We create stunning floral arrangements full of colors, textures, smells, and the always necessary “go-ga” - floral embellishments that take the form of artificial butterflies, footballs, and chicks, depending on the season or holiday. We read poetry aloud that encourages a calm and reflective state of mind. Our team focuses on the human experience as we build relationships with many of the individuals who attend our programming on a regular basis. As we engage with participants, we listen to their stories, ask follow-up questions, and get to know their likes and dislikes. Often, nature is brought indoors so we can cultivate joy for people who have difficulty ambulating while encouraging individuals with increased mobility and independence to explore the fenced Secret Garden and to work alongside us to care and nurture the space. We plant bright and flashy annuals to attract the attention of individuals and pollinators alike. We seed and transplant delicious and recognizable vegetables and fruits such as tomatoes, cucumbers, lettuce, beans, and strawberries that are utilized in daily lunches throughout the summer. We also dry flowers, herbs, and seed pods and help participants transform these into wreaths and bouquets to preserve a snippet of summer. Together with the Memory Care community, we organize a culminating garden celebration luncheon in August as we honor and recognize the abundance of the growing season.

Being part of the Horticultural Therapy Team has been a humbling, rewarding, and educational experience as I completed my internship hours alongside a team of dedicated EMG’s. I am grateful for the numerous opportunities which allow me to connect with community members and to learn from their wisdom and lifelong experiences.