If you are overwhelmed by a huge lawn, the vegetable garden has grown to farm size or the perennials have you exploring slave labor options, trough gardening might be for you. Trough gardens are small, portable, and low-maintenance. And despite the name, they’ve nothing to do with slopping hogs.

Rock gardeners were probably the first trough gardeners. The tiny plants that rock gardeners grow, called alpines, hail from high mountainsides and generally require especially good drainage. Some creative soul, most likely in Olde Europe, discovered that growing them in discarded stone sinks or farm troughs, items that might be found on an old farm years ago, allowed for the use of special fast-draining soil mixes. Alpines needing similar conditions could be grouped in larger troughs to make handsome combinations, plus the portability of the troughs allowed the gardener to arrange them attractively on a patio or terrace and move them to shelter in winter. A fascinating sub-genre of gardening was born, but there was one problem. Old stone sinks and troughs were rare and costly, especially in America, where such items were more commonly made from wood or metal. Without a breakthrough, only those born with a silver spoon could put a trowel in a trough.

Luckily, a second creative soul developed methods for concocting fake stone troughs that are durable, can be crafted to any size, and look like the real thing. Sometimes called hypertufa troughs because they resemble tufa stone, they are cheap and easy to make. Recipes often suggest using roughly equal amounts of Portland cement, sand and peat moss, but perlite can be substituted for the sand. In the late 90’s I made my first troughs using guidelines found in a magazine article, and I’ve assembled many dozens since. Some of
those original hypertufas have lived outside for well over 20 years, through freezes and thaws, with nary a crack.

Once you see some hypertufas it is easy to get hooked. Good collections to visit are those at public gardens, such as Stonecrop in Cold Spring (Putnam County) or Wave Hill in the Bronx. Internet images will yield hundreds of photos, and upscale garden centers sometimes sell them, too. Plantings don’t need to be limited to fussy alpines: I like growing easy-going sedums and hens-and-chicks in mine, but small-scale annuals, perennials and even miniature woody plants can work, too.

Our Rensselaer County Master Gardeners meet occasionally for a hypertufa-making party and sell the resulting products as fundraisers at programs and plant sales. It is fun to see middle-agers messing about with a muddy mixture like exuberant second graders. The hypertufa material is easily molded into shape inside a cardboard box, large salad bowl, cake pan or similar item, then covered and left in a cool place to cure. Once dry, it is unmolded and left to age before planting. Perhaps the only thing more fun than planting a trough is making one. As is often said with creative efforts, your imagination is the only limit.

Yikes! Who Is This?

We aren’t accustomed to having giant puffballs (Calvatia gigantean) appear under our privet, but it could mean a free meal, since fungal gourmands consider it a delicious delicacy. I, being of a much more limited palate, restrict my gastrointestinal risk-taking to lunch at the Schaghticoke Fair. Giant puffballs can range in size from a softball to a beach ball, with reports of some monsters three feet across. While not perfectly spherical, ours measures a good two feet wide and could pass for a mutant artisanal bread. Technically speaking, this fruiting body is called a basidiocarp, and it grows to its impressive size in just a week. When still young, it is composed of an attractive white flesh, or gleba, which myco-chefs rate as bland to rich on the taste buds. Various internet sites provide recipes from a simple fry-job to more ambitious puffball parmesan. But just as with any pedestrian vegetable, harvesting time is of the essence. As the puffball enlarges and matures, spores are produced within the gleba, and the mass becomes greenish yellow and nasty. We must remember, of course, that all this fungus is really concerned about is reproduction, so it just wants to get on with it. While humans usually require a nice dinner out before the act, puffballs have no interest in that or in providing the meal, and their digestive qualities are purely coincidental.

Text and photo by David Chinery
For anyone with a lawn and/or a tree to take care of, those pretty autumn leaves represent lots of work. Since the burn bans of the 1970’s, raking, blowing and sucking up leaves in October and November takes a lot of energy, both of the human and the fossil fuel kind. But researchers are taking a new look at leaves, and finding that we should not only be able to live with them, but that they might actually benefit lawns and turfgrasses.

Aaron Patton, Extension Turfgrass Specialist at Purdue University, issues the following advice:

“There is a myth circulating that returning mulched tree leaves can be detrimental to turfgrass quality. The research shows just the opposite. It is true that heavy layers of tree leaves shading the grass can smother and kill grass. However, our research at Purdue and other universities shows that:

- Tree leaves (both oak and maple) can be mulched without any detrimental effects on the soil or turf and usually results in improvements in soil structure.
- Mulching leaves into the turf will not increase thatch or disease.
- Leaves have no effect on soil pH and no measurable effect on nutrient availability.

Mulching leaves will not result in increased weed pressure and some recent research in Michigan even suggests that mulching leaves back into your lawn can reduce dandelion populations.

Helpful tips:
- The easiest way to dispose of leaves is to simply mow them into the turf.
- Regular mowing during the fall will chop the leaves into small pieces and allow them to filter into the turf.
- Dry leaves mulch more easily and readily than wet leaves.
- Mulching leaves with a mower is much easier and less time consuming than raking, blowing, and/or vacuuming the leaves like we have done in the past.
- Mulching leaves disposes of the leaves without filling up our landfills and saves our cities thousands of dollars in disposal costs.
- Do not burn leaves because of our current burn bans and due to environmental pollution.”

More on the Michigan studies: Researchers there applied pesticide-free leaves from red maple, sugar maple, silver maple and red oak to turfgrass and dandelion plots in the fall, then counted the number of dandelions in each plot the following spring. The data showed that at the highest application rate, regardless of tree genus or species, spring green-up ratings were the highest (and, to my mind, turfgrass quality must have been the highest, too). Dandelion plant counts after one and two mulch applications at the highest rates showed that up to 80% and 53% reduction was achieved, respectively. To me, it is fascinating to think that the leaves we’ve spent all that effort to get rid of just might after all be helping us!
This month’s photos come from Rensselaer County Master Gardener Judy Brown. Judy writes, “The Table Mountain National Park in Capetown, South Africa, is rich in floral biodiversity and is part of the Cape Floral Kingdom World Heritage Site. The most common vegetation type there is fynbos (meaning fine bush). Fynbos is an ancient yet unique vegetation type and has developed over millions of years with Restios (a group of rush-like plants) dating as far back as 60 million years. Fynbos is a fire-dependent vegetation that needs to burn around every 15 years to stimulate new growth. There are 2,000 species on Table Mountain alone.”
The Buck Rubs Here

Sometimes nature is kind enough to give you a reminder: while walking the dog the other morning I came across a buck with a rack of velvety antlers and I suddenly remembered it was time to protect the bark of young trees.

“Bucks are completing their antler growth, which occurs roughly from April through August, and are ready to start polishing them up in order to attract a mate, or several mates, as is the case with deer. How do bucks polish their antlers? As the antlers grow, they are covered with a layer of soft, vascularized tissue, commonly referred to as velvet. Polishing requires the buck to rub the layer of velvet off in order to display their literal crowning glory, although sometimes the velvet will dry up and slough off without rubbing. Rubbing stations are often the trunks of saplings or small trees that fit in and around the antlers perfectly.”

There’s conflicting information out there about what materials make the best tree guard. For example, improperly installed wire fencing can do just as much damage if driven against the trunk by a strong buck (think cheese-grater). Consider corrugated plastic as a possibility. In each case, be sure the guard is firmly attached to a stake and can’t be rubbed up against the tree and/or lifted up. Damage can also occur if the deer becomes entangled in the tree guard.

The average adult white-tailed deer buck is 32 to 34 inches at the shoulder. Since the deer does have to lower its head to put its antlers in contact with the 'rubbing post' (your landscape tree) the recommended height for the tree guard is from about 4 inches above the ground up to 4 1/2 to 5 feet up the height of the tree (although again recommendations vary among experts).

Sources: http://bygl.osu.edu/content/protecting-trees-deer-rubs-0 AND https://wild.its.utexas.edu/expert/show.php?id=2851

By Jen Stengle, Community Educator, Cornell Cooperative Extension Putnam County

Calling All Ashes!

In response to extensive tree mortality by the Emerald Ash Borer (EAB), ash seeds are being collected for long term storage to preserve the genetic resources of the ash species. This has been a combined effort of the Agricultural Research Service and the Forest Service along with the Natural Resources Conservation Service, Bureau of Land Management and over 50 cooperators. In New York State the Mid-Atlantic Regional Seed Bank (a.k.a., MARS-B and www.marsb.org) is overseeing ash seed collection for New York and the Mid-Atlantic region.

How can you help? Being gardeners, we have the unique opportunity for observation and the expertise to identify ash trees. MARS-B needs help locating ash trees that are producing fruit. But specifically those trees should not be landscape trees as they tend to be clones, selected for specific attributes (varieties like “Autumn Applause” with its consistent fall color, is a variety produced by grafting onto root stock). These clones offer very little genetic diversity. Instead, seed collectors should look for trees growing on the margins, like the edge of a woodlot, field, or median, where they have grown from seeds in the wild.

Additionally, there are seed weevils whose larvae may consume the inner content of the seed. In order to make the collection viable, seed colonized by weevils must be discarded. For more on the protocols for seed saving read this forest service booklet: http://www.nsl.fs.fed.us/gtr_nrs55_AshSeedCollection.pdf

If you think you’ve spotted a perfect tree, you may contact Volunteer Seed Collection Coordinator, Clara Holmes for New York State and mid-Atlantic region - Clara.Holmes@parks.nyc.gov. Or better yet, attend a volunteer collection meeting and become an ash seed collector.

Source: Hudson Valley Horticulture
No more annuals to deadhead, no more perennials to cut back. Your garden "plot" is ready for winter, but you are definitely missing those hours of digging, planting, even weeding. While waiting for the catalogs to arrive in January, you can get your garden fix by reading one of the many novels which weave plants and gardening into their "plots."

For example, *The Care and Handling of Roses with Thorns* by Margaret Dilloway is the story of Galilee Garner, a science teacher who suffers from advanced kidney disease. Requiring regular dialysis while she waits for a kidney transplant, Galilee gets purpose, satisfaction, and joy from the roses she propagates. In fact, her dream is to develop a new variety of the hulthemia rose which would be recognized by the rose society and eventually marketed. With interesting story lines centering around Galilee's teaching and the niece who comes to live with her, this novel gives the reader information about the plight of kidney disease sufferers as well as details a gardener will appreciate on propagating roses, entering them in rose shows, and getting them tested across the country before they are marketed.

Those who like historical fiction will appreciate *Virgin Earth*, a novel by Philippa Gregory. Set in seventeenth-century England, the book centers on the life of botanist and gardener to Charles I, John Tradescant. Fearing that Charles would be overthrown, Tradescant goes to colonial Virginia where he collects exotic plants to take back to his gardens in England. In fact, it is historically recorded that he did bring back seeds for the magnolia, bald cypress and tulip trees, as well as the phlox and aster. One reviewer says that this novel shows a "comprehensive and impressive knowledge of botany, early American colonization, and seventeenth-century royalist England."

*The Language of Flowers: a novel* by Vanessa Diffenbaugh is the story of eighteen-year-old Victoria who, as a ward of the court, spent her whole childhood in foster care. Now on her own, she sleeps in a park and eventually gets a job in Blooms, a flower shop. At first, she helps with deliveries, but her boss discovers Victoria's talent for arranging according to the Victorian language of flowers, where red roses mean love and asters symbolize patience. Victoria soon develops a reputation for making things happen because she selects flowers with meanings appropriate to the clients' needs. This work and developing personal relationships help Victoria begin the process of healing the wounds of her past. A dictionary of the Victorian meaning of flowers is included.

*The Signature of All Things* by Elizabeth Gilbert is a panoramic novel which begins with the birth of Alma Whittaker in Philadelphia in 1800, the daughter of the richest man in the city who made his fortune by importing quinine from South America. Alma becomes a botanist and eventually ends up in Amsterdam with her mother's family who operate a botanical garden. Alma specializes in mosses and sets up a Cave of Mosses as part of the garden. She describes the mosses: "This was a stupefying kingdom . . . Here were rich, abundant valleys filled with tiny trees of braided mermaid hair and minuscule, tangled vines . . ." Alma's work with mosses leads her to think about how species change and to develop the Theory of Competitive Alteration. She never publishes her theory because she believes it is incomplete, but Darwin's work, published later, validates Alma's theory. After reading this book, a gardener will never look at mosses the same way again. Besides references like this to plants and botany, the book has great characters, who interact with each other realistically, and a multilayered plot.

Of course, there is no substitute for donning your garden gloves and digging in that dirt, but until the weather allows, an interesting book can give you hours of pleasure enhanced by the characters and story lines from the world of plants and gardening.
Cape May Point is a small place of many meanings. Geographically, it is southernmost spot in New Jersey, where Delaware Bay merges into the Atlantic. Lighthouse buffs know the 159 foot tall pre-Civil War tower, rock hounds hunt for Cape May diamonds at Sunset Beach, and the architecturally savvy appreciate the Victorian homes here and in the nearby City of Cape May. But what attracts me here for a week at the end of summer are the open spaces. Unlike most of the rest of the Jersey shore, wildlife here is given some room, and it’s possible to imagine what the coastline looked like before the boardwalks, gift shops, and rental McMansions spawned and sprawled.

In fall, many avian species navigate down the Garden State and end up here, some stopping briefly before continuing south over the bay. This makes Cape May Point one of the hottest birding spots in the country, and birders flock here to gaze skyward from observation platforms or to hunt harmlessly behind the dunes. Birding has shown me that, even after 10 years of participation, I’m still a rank amateur. It is easy, however, to know the pros. Some tote cameras with megascopic lenses, all carry the requisite binoculars, but there is a uniform, too: earth tone tops and pants, walking shoes, and a broad-brimmed hat. They’re generally quiet, but a knowledgeable guide or professional spotter occasionally calls out identifications, especially of notable hawks or aquatic birds. This is a boon for us beginners, since telling a red-tailed hawk from a red-shouldered hawk soaring swiftly high overhead is more than a bit of a challenge. Learning the pond visitors, who move more slowly and are therefore a bit easier, gives me hope that someday I’ll have more of a bird brain. Of course, migration is a never-ending show.

I arrived too late to see the rare whiskered tern, primarily a European species, and the zone-tailed hawk showed up an hour after we headed north. I’m disappointed, but its reason to go back next year.

I always feel at home amongst the plants, where I can practice botany with a much greater level of confidence. The Blue Trail at the State Park meanders two miles on boardwalks across marshes, through upland woods and near the dunes. In the wetter spots, common reed (Phragmites) is bullying its way in all directions, while cattails and the beautiful rose mallow, a large-flowered hibiscus of pink or white, vie for space. The wetlands must be spectacular with the mallow in summertime full blossom, but I’m glad to catch the final flowers. Twisted tupelos, rugged-barked sassafras, sweet-gums with star-shaped leaves and long-needled pitch pines are amongst the interesting trees. I pondered three plants of spotted beebalm (Monarda punctata) – why so few? – and cursed the porcelainberry vine, another invasive takeover artist. A short herb with dark pink blossoms reminiscent of wishbone flower and a rambling vine are two unknowns I photographed and will have fun ID’ing, some cold winter evening, all too soon.
What to do in October

* The obvious one is: clean up the garden! Rake leaves from the beds and lawns. Good sanitation now can reduce disease problems next year.

* The first killing frost usually occurs around October 10, but as of this writing (October 10) it has yet to come. After the frost hits, pull out annuals and dig tender bulbs (cannas, gladiolus, dahlia and tuberous begonia) and store.

* You can still plant bulbs but get going as time is passing! Plant in groups of 6 or more for better effect.

* Be sure to label where spring bulbs and late-appearing perennials are planted to prevent digging them up in the spring.

* The foliage of perennials should be cut down to a couple of inches from the ground. The foliage can be added to the compost. Peonies appreciate a generous application of well-rotted manure.

* The secret to successful garlic is fall planting four to six weeks before soil freezes. This allows the roots to become established before winter sets in and gets the bulb ready for growth in early spring. Break a bulb apart using the largest and firmest cloves and plant with pointed end up and flat end down, pushing each one an inch or so into the ground. Space about 6 inches apart. Put down a 4 to 6 inch layer of mulch of chopped leaves, straw or dried grass clippings

* Beets and carrots should be dug before ground freezes.

* If the frost or blight hasn’t gotten your tomatoes, try picking un-ripened, unblemished tomatoes, wipe them off and store them in a reasonably dark place. They can be wrapped in newspaper. Check frequently for rotters.

* Keep Christmas cactus in cool temperatures (50-55°F at night) with bright light to set flower buds.

Text by Master Gardeners Peggy Bloomwell and Cherry Christopher
Photos by David Chinery
“My “drinking uncle” says that, even during the worst blizzard in January, a glass of dandelion wine will bring summer right into the house.”

Euell Gibbons (1911-1975)

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.
Gifts From the Garden Class for Children and Families

Are you looking for a holiday class both you and your child or grandchild can enjoy? Join Cornell Cooperative Extension staff on Saturday, December 6 from 10:00 AM - noon in making some handmade holiday gifts from the garden. The class will be held at the Sustainable Living Center (Greenhouse) in Central Park, 180 Chaires Lane, near the Tennis Courts. Limited to ages 5 years and older.

Each person will make and take an herbal sugar scrub, hand-poured herbal soap and a mini clay pot candle decorated with fresh greens!

Cost is $20 per participant (if adult wishes to assist only, there is no charge). Pre-registration and payment is required by Monday, December 1 by returning the registration below with payment.

Individuals with special needs requiring accommodation should contact the Cornell Cooperative Extension, Schenectady County office, 372-1622, prior to the program or activity.

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Holiday Craft Class for Children
Registration

Name(s) of Participants: __________________________________________

______________________________________________________________

Address: ________________________________________________________

City/State/ZIP: ___________________________________ Phone: ____________

Amount Enclosed: $__________ Please make check payable to CCE,SC and mail to:

Cornell Cooperative Extension, Schenectady County, 107 Nott Terrace, Suite 301
Schenectady, NY 12308-3170.

Questions? Please call 372-1622, ext. 240 and speak with Grace.

Please see additional class offering, on reverse!
Holiday Table Centerpiece
Registration

Name(s) of Participants: ____________________________________________________________

______________________________________________________________________________

Address: ________________________________________________________________________

City/State/ZIP: ____________________ Phone: ____________________

Amount Enclosed: $_________ Please make check payable to CCE,SC and mail to:

Cornell Cooperative Extension, Schenectady County, 107 Nott Terrace, Suite 301
Schenectady, NY 12308-3170

______________________________________________________________________________

Holiday Table Centerpiece
Saturday, December 6, 2-3:30 PM

Bring a decorative holiday touch into your home with an elegant table centerpiece. We will combine an assortment of fresh flowers, aromatic evergreens, pinecones and candlelight to create a beautiful seasonal centerpiece.

Cost is $20 including all project materials.

Pre-registration and payment is required by Monday, December 1.
Please send check to: Cornell Cooperative Extension, Schenectady County
107 Nott Terrace, Suite 301
Schenectady, NY 12308-3170

Individuals with special needs requiring accommodation should contact the Cornell Cooperative Extension, Schenectady County office, 372-1622, prior to the program or activity.

Please see additional class offering, on reverse!