With nor’easter number three brewing as I write, it might appear that winter isn’t in the mood to release its grip. But look past the dirty snow and there are plenty of signs of change a-coming. I’ve been enjoying the sight and scent of my behind-the-garage witchhazel in bloom for a few weeks now. It is a large shrub, easily ten feet tall, planted too close to the fence and encroaching on my neighbor’s garage. It never is bothered by pests, demands no special attention, and has clean green foliage all summer which turns an attractive yellow in autumn. My witchhazel remains dependable but unspectacular until late February, when every branch becomes covered in oddly twisted flowers of yellow and burgundy, each about an inch long. The sweet cloud of perfume they effuse has made cleaning up from our first two March blizzards oddly enjoyable experiences.

Hungry to see some more green, I tootled over to the Berkshire Botanical Garden’s Bulb Show last Saturday. Before I could exit the car I spotted two
more witchhazels. Mine is botanically known as *Hamamelis × intermedia* ‘Luna,’ and here were two cousins, ‘Arnold Promise’ and ‘Diane.’ The odd scientific name with the “x” in the middle acknowledges that these plants are hybrids, crosses between two naturally-occurring witchhazel species, the Japanese and the Chinese. The history of this match-up can be traced to Boston’s Arnold Arboretum, where both species were growing, but with some disappointment. It was noted that in the New England climate, Japanese witchhazel did not bloom profusely, while the flower buds of the Chinese were often killed by winter cold. Things changed for the better when, like peanut butter and chocolate, these two eastern witchhazels got together and made something even more exciting than just one or the other.

In 1928, the Arnold’s plant propagator William Judd collected seed from a Chinese witchhazel. Several of the seedlings which resulted showed exceptionally desirable traits when grown on and observed in the 1930’s. It was decided that these weren’t just Chinese witchhazel seedlings, but a cross made with a neighboring Japanese plant. It wasn’t until 1945 that these new hybrids received their scientific name, *Hamamelis × intermedia*, since they were appraised to have traits intermediate between both parents. Finally, in 1963, one of the resulting plants became the cultivar ‘Arnold Promise’ and it was released to the horticultural world. Today it is still one of the best and lands on most plantspeople’s top ten witchhazels list, noted for its dependable winter hardiness, very large, bright yellow flowers, upright shape and vigorous growth. I hope I have that much spunk at age 90.

Of course there are newer hybrid witchhazels, too. ‘Diane,’ also featured at Berkshire Botanical, has vivid crimson flowers and was bred in Belgium. ‘Jelena’ has large coppery-orange flowers and reportedly glows from a distance. The deliciously named ‘Strawberries and Cream’ has petals of rosy pink and pale yellow. There are so many good witchhazels we may wish March could stay a little longer.
NEW VEGETABLE BLOG
FOR BACKYARD GARDENERS

The Master Gardeners of the Rensselaer County Cooperative Extension now offer a moderated blog for backyard gardeners in the county and the surrounding Capital District interested in growing and learning about vegetables.

Postings in the blog cover activities at the Rensselaer Extension’s Demonstration Garden located at the Robert C. Parker School in North Greenbush, discussions about environmental factors influencing growing, upcoming gardening events, recommended readings as well as the occasional personal experiences of Master Gardeners.

Gardeners can find the new blog either by searching for “Rensselaer County Vegetable Blog” via their favorite search engine or using the following URL: https://rensselaercountyvegetable.blogspot.com.

Blog readers also can subscribe to receive new postings automatically by entering their email address in the FOLLOW BY EMAIL option or submit their own observations relating to specific posts by clicking the COMMENT label. Other gardening questions may be submitted via the CONTACT US feature.
Maple Syrup Time!

This morning, as I was eating my breakfast, I contemplated my topic for the March essay. I was eating an English muffin which I had slathered with maple cream. I have a niece who works for Merle Maple Farm in Attica, New York and she had given me my first taste of maple cream (also called maple spread). My husband and I used to collect maple sap and boil it down to make the syrup. What a great topic - maple syrup!

So, let me begin by explaining what maple cream is: it is maple syrup that has been whipped into a semi-solid consistency. I like it better than maple syrup. The air in the cream makes it a little less sweet. Maple trees convert the immediate product of photosynthesis (the sugar, glucose) into the much larger carbohydrate, starch. Starch, being such a large molecule, is insoluble in water. In the spring, trees need sugar to supply the energy that enables the buds to sprout. There are two conducting tissues in plants: the water-conducting xylem, which by and large moves water up the plant, and the photosynthate-conducting phloem. The xylem of a tree is the wood and the phloem of a tree is the inner bark. So, in the spring, the insoluble starch is converted (the proper word is hydrolyzed) to the much smaller sugar molecule, sucrose.

Allow me to deviate a bit here in order to clarify the last two sentences. Sucrose is the same sugar we buy in the grocery store. Flour is starch. Put a teaspoon of flour on your tongue and you will taste no sweetness even though it is composed of sugar. The reason you can’t taste sweetness is because starch is not soluble. In order to stimulate the taste buds, the substance to be tasted must be in solution. You can check this in two ways: you can dry your tongue and then sprinkle sugar on it, or you can take a very small amount of flour and chew it for a long time and you will taste the sweetness as the starch is hydrolyzed into soluble sugar. What hydrolyzes the starch is an enzyme present in our saliva and also in the roots of trees.

Sugar is soluble, so it dissolves in the water that is absorbed by the roots. This means the sugar travels in the xylem. When tapping a maple tree, one has to drill through the bark to reach the underlying xylem. The water traveling up a maple tree contains 2 - 5% sugar, barely enough to be tasted, whereas syrup contains 66% sugar. In order to convert the sap into syrup, lots of water must be removed to concentrate the sugar. When my husband and I made syrup, we boiled down the sap. (It takes about 40 gallons of sap to make one gallon of syrup.)

Modern commercial syrup making no longer involves toting individual gallons of sap from the trees to the sugar shanty (for boiling), rather plastic tubes bring the sap directly to the sugar shanty. Also, much of the water is removed by a process called reverse osmosis, so boiling is no longer as time-consuming as it used to be.

In order to write this article, I visited Merle Maple Farm and also did a bit of reading. There are many, many interesting facts which do not seem to fit into this article, but I cannot resist mentioning two of them. First, there are about 115 species of maple trees all of which can be tapped; the amount of sugar in their sap varies. The sap of the sugar maple (Acer saccharum) has the highest sugar content, but red (A. rubrum) and black (A. nigrum) are also commonly tapped. I was surprised to read that other commonly tapped maples include box elder (A. negundo), silver maple (A. saccharinum) and big leaf maple (A. macrophyllum). The second fact I cannot resist mentioning is that Quebec is the largest producer of maple syrup (70% of world consumption) followed by Vermont and then New York.

Text by Rensselaer County Master Gardener Inge Eley
What to do in March

* March is a good month for pruning. Many deciduous woody plants can be pruned before the new leaves emerge, which makes it easier to see problems and how to remediate them. The exceptions are maple, birch and dogwood which should have some leaves when they are pruned. Finish pruning apple trees and raspberries.

* Try forcing a flowering shrub or tree branch to enjoy early blooms.

* Horticulture oil can be used at the “dormant” rate (since our plants are dormant) to suffocate insect eggs before they hatch. Please read the label and apply on a 40 F day, when temperatures will remain above freezing at night, before buds break.

* Do not compact your soil! Remember to stay off your lawn until your soil is reasonably dry. When you can walk safely and the soil can be worked, you can direct seed lettuce, parsley, peas, and spinach. Do a second planting in April. Once sprouted, watch for snow and frost.

* To help avoid damping-off, use sterile planting medium when starting seeds. Check the seed packets for instructions and information.

* Get bulbs and tubers started indoors now, including cannas, dahlias, caladiums and tuberous begonias.

* Check all your tools. Did you clean and sharpen ALL of them last fall? Do it now! They like oil too.

* Replant frost heaved plants. Look for evidence of moles and other critter damage. Inspect for wind and snow damage, too.

* Check garden supplies – potting soil, fertilizer, mulch, bird netting, etc. Replace expired fertilizer.

* As days lengthen, divide, repot, and fertilize house plants and prune as necessary. Don’t over-fertilize, use at half strength.

* Start seeds of vegetables and annuals indoors. Check the number of growth weeks required. Count back from the last two weeks in May to determine when to start a particular seed.

Text by Rensselaer County Master Gardeners
Keep An Eye On Your Oaks

We might politely call 2017 a “challenging year” in many ways, including the world of gardening. More trees showed signs of emerald ash borer infestation, hemlock woolly adelgid continued to spread, and a brand new harbinger of destruction, the spotted lanternfly, was found in New York. But today I’ll focus on oak wilt, a fungus first found in Schenectady County in 2008, which in the last two seasons has popped up in more places in the Empire State. I’m concerned that the new findings, ranging from several spots on Long Island to Canandaigua in the Finger Lakes, indicate a growing threat to our local oak trees.

Scientists are not sure where the fungus – which sports the tongue-twisting official moniker *Ceratocystis fagacearum* along with the oak wilt label – initially came from, but it has been previously documented in the Midwest, the middle Atlantic states, and in Texas.

So how does oak wilt wilt oaks? The fungus grows in the water conducting vessels (called xylem) inside the tree, which in turn causes the tree to produce gummy plugs, therefore restricting water flow. Plugged xylem causes wilting, leaf scorch (browning around the edges), and eventually death of the tree. It’s vaguely similar to clogged human arteries. Wilting usually starts in late May or early June. First one branch goes, then several, and after a month the entire tree may be showing distress. Typically, species in the red oak group (including red, scarlet, pin and black oaks) are more susceptible than those in the white oak group (including white, chestnut, and bur oaks). If you are in doubt about your oak, remember that those in the red group have pointed leaf tips, while those of the whites are rounded.

Diagnosis in the field can be tricky, and just as in crime solving, evidence is compiled in several ways. The wilt and leaf scorch symptoms may or may not correctly indicate *C. fagacearum*. Examination of the wood tissue beneath the bark usually indicates a brown discoloration, but often samples must be sent to a plant pathology laboratory, such as the one at Cornell, for the final word.

The fungus gets around in at least two ways. First, root grafts allow transmission. Huh? When tree roots touch in the dark mysterious world underground, they sometimes join, allowing the plants to swap water, nutrients, and fungi. Secondly, as a diseased tree dies and for up to a year beyond, small cracks in the bark can exude spores which spread via wind, sap beetles, or perhaps other insects and squirrels.

Keep in mind a few key points. Inspect your trees often, and if you see any suspicious wilting, call your local Extension office. Avoid pruning oaks from mid-April to mid-July, since bleeding wounds attract fungus-carrying beetles. If you must prune for the sake of safety or to fix an immediate problem, paint the wound with pruning paint. Avoid moving firewood, and follow the Department of Environmental Conservation’s regulations if you must. Let’s keep oak wilt grounded in 2018.

For more information on Oak Wilt in New York, visit:
https://www.dec.ny.gov/lands/46919.html

Text By David Chinery
This page was compiled by Rensselaer County Master Gardener Kathy Hartley. Kathy writes, “These are pictures of the beautifully landscaped Government Gardens in Rotorua, New Zealand. The climate of New Zealand is quite temperate and many of the plants in their gardens are the same that we grow here as annuals and perennials. These photographs were taken in early January, which is comparable to our early July here in the northern hemisphere.”
A Little Q and A!

Q. I have been growing tomatoes year after year in the same location. This year they are not thriving as they have before. What should I do?

A. Vegetables need some rotation in the garden. They will continue to use the same nutrients each year from the soil. I would suggest you move them to a different location. Also you might consider using a winter annual rye grass in the fall and in the spring incorporate it into your soil. A soil test would tell you if important nutrients (such as nitrogen, phosphorous, and potassium) are lacking in the soil. Contact your local Cornell Cooperative Extension office for advice about soil testing. Rotating vegetables (moving each type to a different location each season) is also important to reduce diseases, such as early blight of tomato, which overwinters in the soil.

Q. A limb broke off my Rose of Sharon at the base. Will this become an entry for area for diseases?

A. The best thing to do is cut off the limb as cleanly as possible. If it is a small limb give it time to heal over before making any other drastic decisions concerning the tree.

Q. Chipmunks are digging up my bulbs! Help!

A. Some bulbs are less tasty to eat than others. Try Daffodils, Alliums (members of the onion family) or Scilla. When you plant them, incorporate some smelly organic fertilizer, such as bone meal or fish emulsion. Be sure and cover up the fact that you just planted there. Chipmunks and squirrels are sensitive to freshly dug soil, so pat soil down well and cover with mulch. Good luck with those little critters!!

Text by Rensselaer County Master Gardener Meg Distell
This month’s photos come from Master Gardener Beverly Reinhardt. Beverly writes, “June is a wonderful time to visit Denali National Park and Preserve. After a 4 hour bus ride to the interior, we arrived at the Eielson Alpine Trailhead. The hike took us up into fog soup where I came across these lovely plants and dew drops.”
I love learning about horticulture in strange ways. A friend sent a text and photo showing a questionable plant in a Valentine’s Day floral arrangement. I’m not well versed on the bold and the beautiful tropical plants florists use: to me, if it isn’t hardy or at least grown outdoors here for the summer, I gladly plead ignorance. In the wee picture I could make out two red roses, something with scarlet berries, the back side of perhaps some white daisies and…could it be…an ornamental kale in a particularly violent shade of magenta? Strange indeed.

Outdoors, ornamental cabbages and kales are nothing new. Visiting the New York Botanical Garden in the early 90’s I became aware of them vying with the chrysanthemums for sheer color power in autumnal displays. Personally, I enjoy seeing one kale in a large container, mixed in with sedums, asters, or perhaps even a smallish ornamental grass. While they will never replace the pumpkin, they’ve expanded the late season, October-November repertorie for both garden center sales and gardeners alike. Bedded out en masse, however, ornamental cabbages remind me of farming gone slightly mad, like a vegetable plot grown too close to Three Mile Island. And kale in a Valentine’s bouquet, not only out of context but out of season, was mildly shocking. Is the new theme to be “Nothing says I love you like a purple cabbage?” Like with much else happening in the world today, I’m going to need some time to adjust.

Perhaps I need to invite some of these critters into my garden, as a form of horticultural detante. And before that, I need to get their names correct. According to the University of Wisconsin, “ornamental cabbage and kale are all kales (kales produce leaves in tight rosettes; cabbages produce heads). But in the horticultural trade, ornamental kale is the term used for types with deeply-cut, curly, frilly or ruffled leaves. Ornamental cabbage is the term used for types with broad, flat leaves that are edged in a contrasting color.” Most grow about twelve inches tall and fifteen inches wide, but that can vary. When plants such as these, in the Brassica family, start to flower, they often shoot up a tall stem. This effort can be ornamental but also spells the end, since biennials die after they flower and set seed. Maybe with enough creative marketing this death after procreation could be woven into the romance of kale for Feb. 14, and we can then forget about those costly roses.

The usual color scheme for ornamental kale seems to be rubbery blue-green leaves surrounding white, pink or purple foliage, but there are exceptions. ‘Redbor’ kale (middle photo) is a very robust selection, growing two to five feet high, with finely dissected and crinkled leaves of dark purple which age to bright burgundy. It is tasty as well as eye-pleasing. Yokohama Mix (bottom photo) is similarly ruffled, but comes in shades of white and lavender on compact plants. Just convince your sweetheart that kale smells better than a red rose.
A Prickly Multi-Tasker

A mid-February Saturday featured exactly three and one-half minutes of sunshine in an otherwise sea of gray gloom. I know this because I was admiring a patch of teasels at the time. This occurred along the Mohawk-Hudson Bike Path, near what was once the entrance/exit of the Erie Canal in Albany. Perhaps it is fitting that a plant whose industrial use has lapsed long ago is found adjacent to a forgotten section of New York’s first man-made superhighway of commerce.

Teasels are interesting creatures. They are biennials, which is not the most popular lifestyle choice in the plant kingdom, but it seems to work for them. After a teasel seed germinates, it spends its entire first year forming a rosette of leaves close to the ground. It is also growing a big root system in preparation for its next act. If feeling robust come the second year, the teasel shoots up flower stems to a height of two to eight feet. Tentative teasels may wait longer. The stems are prickly and terminate in large, cone-shaped flowerheads which are surrounded by four thin, pointy bracts. Tiny lavender flowers, numbering up to 1,500, bloom on each flowerhead over a period of weeks, with each blossom lasting only one day. Although roughly attractive, it is a plant which shouts “handle me with care, if at all,” to every passerby. Wild winter weather doesn’t flatter teasels, and their brown carcasses are one of the more interesting things to see on a glowering February day.

Round about the twelfth century, some enterprising soul decided that the teasel’s tough, bristly flowerheads were just the thing needed to card, or fluff up, cloth fibers. Spent flowerheads of Fuller’s Teasel (Dipsacus sativus) were first strung or wired onto small wooden cross-shaped frames for hand carding. The hooked teasel spines gently worked the cloth to any degree of softness desired. Larger drum-shaped teasel gigs had many teasel flowerheads attached to wooden rectangular frames. Using a series of rollers to keep the cloth taut and aligned, the turning gigs could tease much larger amounts of cloth much faster. Shearmen next trimmed the carded cloth to create uniformity using what we might call old-fashioned sheep shears. Dutch Huguenots are credited with reinvigorating the use of carding and teasels when they brought the manufacture of baize, a woven woolen cloth, to England in the late sixteenth century. It is therefore tempting to imagine the Dutch bringing teasels with them as they settled the Hudson Valley. One source on those early settlers, however, states that they were prohibited to weave wool by the Dutch West India Company, who wanted to keep the looms busy at home rather than spark competition in the new world.

Another of the teasel tribe, Dipsacus sylvestris, is of more current interest. This eastern species has long been used in Chinese medicine, and recently teasel root tincture has found some use in the herbal treatment of Lyme disease. Undoubtedly, when humans find their way to another planet, teasels will be along for the ride.

Text by David Chinery
“Mud is the most poetical thing in the world.”

Reginald Horace Blyth (1898-1964), English 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.ccc.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.
The Rensselaer County Garden Garden Tour for 2018 will be held on Thursday, July 12 at gardens in the East Greenbush area. Do you have a garden or know of someone else who has a garden, that would make a beautiful addition to next year’s tour? If so, for information, please contact David Chinery at Cornell Cooperative Extension during the week at (518) 272-4210 or Garden Tour Chairperson Teresa Murphy at (518) 283-3604.