The meeting back on October 23 told us just what we didn’t want to hear; more emerald ash borers were found in those funky purple traps. The program, designed to get local municipal officials up to speed on a looming arboreal problem, was hosted by a group of agencies concerned with invasive species, including Cornell Cooperative Extension and the Department of Environmental Conservation. In accord with the gray and stormy weather that day, the feeling in the room could be summed up as “grim reality” or maybe “impending doom.”

Cornell entomologist Mark Whitmore gave an overview of the spread of this small green menace which attacks and invariably kills every ash tree it finds. Since its suspected arrival in the Detroit area in the late 1980’s, it has killed tens of thousands of trees, causing havoc in planted landscapes as well as natural woodlands alike. This spells the destruction of trees shading cities, towns, parks and homes, the loss of ash for furniture construction, baseball bats and other items, and damaged ecosystems for all, among other consequences. Currently, less than ten percent of the ash trees are infested nationally but the beetle now lives in states from the east coast to Colorado. If we listen closely, the beetles are probably singing the Carpenter’s “We’ve Only Just Begun” as they munch cellulose.

So how close is close? Pockets of emerald ash borers have been found scattered throughout western and central New York, with a large infestation in Selkirk and an even bigger outbreak in Ulster and Green counties. Last year, one emerald ash borer was found in a purple trap in Stephentown. The latest results show borers in traps in several Albany County locations, including places in Colonie, Loudonville and Watervliet, and in Rensselaer County’s Troy. The trap catches indicate that infested trees are
nearby, yet they haven’t been identified yet. That is typical, since these small insects are difficult for humans to see. The best early detectors are woodpeckers, who tear trees apart in search of lunch, and dinner, and breakfast.

If you’ve got an ash tree or two, now is the time to ponder the choices. Doing nothing is always an option. As a natural procrastinator I might be leaning toward this, but consider that a dead ash tree of any size is a hazard to anybody and anything nearby. So doing nothing probably means the loss of the tree’s benefits and paying someone to remove the tree at some future point. Trees can also be treated by homeowners but more effectively by qualified arborists. Treatments will last two to three years and are less expensive than removal, but how long will it take for the borer to run its course? No one knows.

For municipalities, step one is finding the ashes. Senior Resource Educator Chuck Schmitt, Administrative Assistant Marcie Vohnoutka and I did a “windshield survey” within the City of Rensselaer and identified 46 ashes which will need either treatment or eventual removal. In Troy, volunteers estimate about 500 street trees are ash. Unfortunately, any abatement option requires cash from already taxed city coffers and residents.

For more information on the EAB, visit New York Invasive Species Information at http://nyis.info/

Yikes! Who Is This?

When I saw this little character standing head-down on my blue garage door this summer, I just had to take a photo. While he certainly isn’t scary enough to provide a true “Yikes!” moment, it isn’t every day of the week that you clearly see a bug trying (and succeeding) to look like a leaf.

Luckily, he wasn’t all that difficult to identify. His common name is the Rattler Round-winged Katydid, or *Amblycorpha rotundifolia*. Here I’ll quote at length the website Songsofinsects.com. “Abundant though seldom seen, the bright green Rattler Round-winged Katydid is an excellent leaf mimic. Moving about slowly and deliberately, these katydids are difficult to locate, even when one is singing right in front of you. Unusual color morphs, such as the absolutely amazing pink specimen pictured below, are rarely encountered. This species seems loaded with personality — when confronted, one will turn and look at you as if to say, “What do you think you’re doing?” They rarely fly. When disturbed, they weakly jump away. Females are more bluish in color than the males, and they have a prominent upturned, serrated ovipositor. Adults are very susceptible to frosts and do not survive the first couple of freezing nights. Found along the edges of woods in brushy vegetation and in second-growth habitats.”
A friend of a friend recently showed up at the gym with his arm in a sling. “What happened to you?” “I slipped on some acorns.” The tale is quite mundane, but at its root lies a mystery called the Mast Year.

While we’re able to name it, the cause of the botanical phenomenon which caused our fellow’s pain and suffering is poorly understood. Mast comes from an old English word referring to a forest crop of nuts, useful for fattening pigs, lying on the ground. A “mast year” occurs when a hyper-abundance of nuts are produced. At that time huge crops are observed not only on a single tree, but on thousands of trees located across hundreds of square miles. Many scientists believe the weather is involved, while some hypothesize that the trees can give each other a chemical signal to ramp up nut production. So far, it remains one of the elusive riddles of the natural world.

Local gardeners, even those who haven’t fallen for nuts, can tell you that acorns are in good supply this fall. Walking under my own backyard red oak today is akin to traversing a field of marbles scattered on ice. While many of us may just rake up the nuts and muse over nature’s fecundity, some government departments concerned with wildlife and hunting are in the business of conducting mast surveys. This year, Ohio reports that the number of white oak trees producing nuts has increased by 31% over 2013, while the number of red oaks producing is up by 33%. Vermont data from the period 1989 to 2010 shows high acorn counts in 1990, 1993, 1997, 2001, 2005, and 2010. The lowest years were 1992, 1996, 2003, 2007 and 2008. A bar chart nicely shows that the ups and downs are clearly cyclical.

So while we’ve no clear understanding of how this exactly happens, there is some thought about why this might benefit the trees. In a mast year, wildlife such as squirrels and deer can’t eat all of the acorns, so some are allowed to grow into trees. In years of low production, wildlife populations decrease, so fewer hungry mouths are feeding when a mast year happens again. As a plant proponent, it is intriguing to think that the trees may be manipulating the animals, since it so often seems the other way around.

I was feeling smug for the trees’ sake, but then I stumbled upon a study cited by Richard Ketchum in his book, “The Secret Life of the Forest,” which illustrates just what the trees are up against. Researchers examined the fate of fifteen thousand acorns, all produced by one prolific tree. Deer, squirrels and other animals ate 83%, 6% were attacked by weevils and insect larvae, and 10% were naturally non-viable, leaving less than 1% to sprout. Of those which did, over half died as seedlings. One can only conclude that needing to get a limb up on the competition is what makes the oak a seedy character.
Ah, a rose by any other name….in many other cultures or legends this favored flower releases a hint of mysticism along with its fragrance.

It's a symbol of romance. War. And literature. “Rose” has over 133 references in Bartlett’s Familiar Quotations.

So let’s peel back a petal or two and check out the mysteries. Like color.

According to the Greeks, all roses were white until the goddess Athena pricked her toe and where her blood fell, the roses turned red.

The Arab’s tells a different tale. All roses were white and one night the nightingale met a rose and, you guessed it, fell in love. The smitten bird began to sing and, in joy, clutched the rose to his chest, pierced his heart with a thorn and colored the roses red forever.

Which brings up another question: Why thorns?

That takes us back to the Garden of Eden where roses were thornless until Adam and Eve ate the apple. Then the thorns appeared…a painful reminder that we no longer live in a state of perfection.

The Native Americans tell a different story. Once upon a time, thornless roses filled the world. But they were fighting for survival. It seems that the roses had become the favorite food of the ravishing rabbits. The roses cried to the Great Spirit for protection and they were blessed with thorns.

On the subject of symbolism, it’s hard to know where to begin. OK. Red stands for passion, energy and blood. White equals both purity and death. This contradiction could be why Romans planted roses on graves….for the flowers represented the circle of life.

Even the shape has a special meaning. Think of sunflowers and daisies. Their petals radiate outward. The rose, like the tulip, is more contained. That may be one reason it is the symbol of silence. Often in ancient rooms where secret meeting were held, a rose was painted on the ceiling. The message? Nothing leaves this room.

The Christians adopted the rose as Mary’s flower and she is sometimes referred to as the Holy Rose. The meanings of the colors also changed. Athena’s toe was forgotten. Red roses symbolized the blood shed by the martyrs who died for their faith. The white stood for innocence and purity. Oh, it’s also believed that the first rosary was made out of the flowers.

Roses also have a history of rescuing the innocent and showing up in the strangest places. One tells of a woman sentenced to be burned at the stake. She prayed…. and the flames turned to gold and red rose petals. In another story, St Dorothy received roses delivered to her cell from the Garden of Paradise by the angel Gabriel.

There’s also an earthier side to the symbolism and favoritism of the rose. Tattoos.

In days of old, a rose tattoo was a pledge of fidelity over a long separation. The rose can be embellished with religious images such as a cross. Adding a diamond shows prosperity. A drop of blood equals a broken heart. The image of a thornless rose means love at first sight.
And then there’s war. The Wars of the Roses. These were a series of battles between 1455 and 1487 and fought to determine which royal house would rule England. The red rose was the House of Lancaster; the white stood for the House of York. The Red rose won. As a side note: if these battles had not been fought, Shakespeare’s history plays would be missing seven chapters. It also helps to remember that the plays were written 200 years after the events and embellished a bit to please the ruling family…. descendants of the Red Rose.

As for gardeners, lovers and poets, the rose remains a dangerous beauty wrapped in legend, mystery and romance. With each bud offering this life lesson: enjoy the scent: and watch the thorns.

Rutgers researchers are trying to make low-maintenance grass more economical and resistant to decline and drought. Many homeowners strive to have the picture-perfect green lawn. But how can that be achieved in an environment where water in parts of the country is becoming scarce and the use of pesticides and fertilizer is being discouraged?

Researchers from two Big Ten universities hope that they will be able to find an answer. Scientists from Rutgers University and the University of Minnesota, both members of the Committee on Institutional Cooperation—an academic consortium of Big Ten universities—will be working together over the next five years to develop an environmentally friendly grass that is more resistant to disease and drought and a better economical choice for homeowners.

The scientists have received a $2.1 million grant from the U.S. Department of Agriculture to find a way to make fine fescue, a highly drought-tolerant grass native to Europe and used throughout the world in grazing pastures, ornamental landscaping and home lawns less susceptible to disease and wear.

“We’re trying to make the low-maintenance grass less vulnerable to disease and more wear-tolerant for homeowners’ lawns,” said Austin Grimshaw, a research technician at the Center for Turfgrass Science in Rutgers’ New Jersey Agricultural Experiment Station, who is working with colleagues Stacy Bonos and William Meyer on researching fine fescue.

“Tall fescue is very common on lawns,” said Bonos, an associate professor of plant biology and pathology in the School of Environmental and Biological Sciences. “Tall fescue uses more water than fine fescue, and it requires more fertilizer to maintain green color. Fine fescues maintain density and stay green with almost no water or fertilizer.”

Besides making fine fescue tougher and less dependent on fungicides and fertilizers, better for the environment and more economical for homeowners, Bonos said researchers also need to gain a better understanding of what homeowners and groundskeepers want in a lawn and how best to market the grass.

Visit this website to view the original story: http://news.rutgers.edu/news/two-big-ten-universities-work-develop-environmentally-friendly-lawns/20140903#.VG4J8zN0zcs
On October 8, 2014 a group of Master Gardeners, garden club members and students went to Hudson Valley Community College to hear Dr. Ernest H. Williams, Professor of Biology at Hamilton College and author of *The Nature Handbook* speak about the decline of monarch butterflies. Dr. Williams has visited the monarchs where they overwinter in the mountains west of Mexico City. There are 12 colonies in the Mexican mountains, and the butterflies arrive about November 1 after spending the summer in the northern U.S.

During their overwintering in Mexico, the butterflies face many challenges and the mountain forests protect them in several ways. The forest canopy serves as an insulating layer during the cold nights, keeping the monarchs from freezing. During the day the monarchs leave the tree canopy and drink from seeps, the dew which has melted from the ground frost. The trees provide a wind shield and absorb heat during the day and keep the monarchs warm during the night.

The monarchs must avoid freezing, but they also must remain cool in order to preserve their energy, which is stored as fat in their abdomen. The mountains also provide a cool daytime environment. Illegal logging and increased acreage used for agriculture is threatening the monarch overwintering habitat in Mexico by eliminating the forest areas.

Monarchs are facing other challenges during their migration from Mexico to the northern U.S where they breed during the summer. The use of glyphosate on corn and soybean crops in the northern agricultural states is blamed for eliminating much of the milkweed the butterflies need for food and egg-laying. Climate change, which has resulted in droughts along their migratory path in the southern U.S., means there is less water to sustain the monarchs on their journey. The recent increase in number and severity of storms also hampers their migration and can reduce their population.

How do you count monarch butterflies? Scientists use GPS coordinates to define the boundaries of colony locations. They employ one assumption: colony density remains the same year-to-year at 50 million butterflies/hectare. Numbers are estimated by multiplying the colony areas by the density. It has been estimated that the colony area has declined from covering 20.97 hectares in 1996 to covering 0.67 hectares in 2013.

Conservation groups and butterfly ecologist are asking the federal government to grant Endangered Species Act protection to the monarch butterfly that was once one of North America’s most common insects.

What can we do? Get active! There are a number of initiatives to help the monarchs:

- www.Monarchwatch.org
- www.monarchbutterflyfund.org
- www.monarchjointventure.org
- www.learner.org/jnorth (Journey North)
- www.makewayformonarchs.org
- www.nature.org (Nature Conservancy)

Dr. Williams left us with a parting thought: *Keep in mind that a monarch butterfly weighs as much as a paper clip and can fly thousands of miles.*
The old timers knew the drill. Batten down the hatches. Be prepared. “See how high the hornet’s nest, ‘twill tell how high the snow will rest.” Gardeners believe a primary purpose of autumn is to provide the briefest of moments to prepare for the big chill. While others might merrily go off to a football game, carve pumpkins or pick apples, the gardener trundles a twenty foot Schefflera off the patio and upstairs or ruminates on just how to remove gasoline from the tank of a rototiller, all the while with one eye on the weather. Daylight decreases with depressing regularity, but temperature determines just how many days we can keep putting off rolling up the hoses. Forgetting to drain your pipes and shut off the petcock before the freeze can have drastic results – take it from a man who knows.

I’ve already cut down the dahlias and cannas, but the tubers and rhizomes need to be dug then stored in the basement. Any lingering root vegetables can be harvested, too. I like to clean up all the vegetable debris and cut back most of the perennials, carting it off to the compost, leaving only a couple of the toughest ornamental grasses for show. Most roses should be only pruned enough to prevent wind whipping and provided with a few inches of mulch. And planting the garlic, a task still unaccomplished for me, has reached the now-or-never stage.

But wait! There’s more. My newly planted Virginia sweetspire shrub requires watering weekly until the ground freezes – luckily the recent rains have helped. Broadleaved evergreens, including the blue hollies, should be sprayed with anti-desiccant soon to help them resist the coming winter winds. I skipped this last year, and the poor hollies got toasted by spring. A burlap screen would be another option. For some reason my garden is blessedly deer free (mostly), but for those in the path of the thundering herd, deer netting the shrubs has become mandatory.

Many tasks are stunningly mundane but physically challenging. Heft the large green planters aboard the handcart and schlep them into the garage, wondering again why they’re filled entirely with weighty potting soil instead of lighter-than-air packing peanuts. Awaken shoulder muscles while hoisting rocking chairs out of harm’s way and into the garage rafters. Drop the top of the stone bench on my bunion and swear loudly. Delicately balance the gazing globe, stone buddha, cheerful gnomes and plastic flamingoes in the garden cart, then whisk them off to the shed. Set mouse traps without snapping fingers so the vermin don’t eat the plastic flamingoes again.

But late fall brings opportunities as well. A goal for next summer is to replace a privet hedge, which requires twice-yearly shearing, with a lower-maintenance shrub border. Driving past a nursery yesterday, I slammed on the brakes when I spied the sign, “All trees and shrubs 50% off.” Beautiful witchhazels, deciduous hollies, and lilacs that seem practically free. Eureka! Another reason for autumn – ‘tis the garden bargain season!
Perhaps it is showing my age to lament about the cost of books, especially paperbacks, but I do remember when paperbacks at least were “inexpensive.” Not so any more! In fact, often there is little difference in cost between the paperback and the hard cover edition. The cost of books can be high and since money doesn’t “grow on trees,” it is important to make good choices as you invest in your horticultural library.

High on the list for several reasons is *The Well Tended Perennial Garden: Planting and Pruning Techniques* by Tracy DiSabato-Aust, $26.70, Timber Press. This is a wonderful resource book filled with practical advice and written in a very user-friendly style. Divided into three sections, the text covers basic planting and maintenance, pruning techniques, and an encyclopedia of perennials—soup to nuts. This book goes where few authors dare to go—the reality of the perennial garden. The author is an accomplished garden designer and owner of a landscape installation and maintenance company whose philosophy is to create good garden bones, care for the garden regularly and enjoy it more! She debunks the myth that perennials are “no maintenance” and she teaches how to achieve “low maintenance.”

*The City Gardener's Handbook* by Linda Yang, $15.92, Storey Publishing, offers invaluable information to anyone gardening on a small scale, be it in an urban environment or not. Drawing on her own experience and years of garden writing for the *New York Times*, Ms. Yang presents practical solutions to problems as well as ideas for the creative use of space. Her down-to-earth style and troubleshooting approach make this a good resource for the space challenged gardener.

*Pruning Made Easy*, by Lewis Hill, $8.30 (paperback), Storey Publishing, is a well established hands-on guide to pruning in the landscape. The text is succinct and the illustrations clear combining to give the gardener the information and confidence to do the job.

*Hydrangeas for American Gardens*, by Michael Dirr, $26.21, Timber Press. Dr. Dirr is the well respected “guru of woodies” and his book explores the merits of one of the shining stars of the landscape. If you love hydrangeas and grow them in your own garden, then this is a must read for you!

Consider also the *Manual of Woody Landscape Plants*, by Michael Dirr, $96.69 hardcover and $62.95 for paperback, Timber Press. Most would agree that this text is the “bible” for the green industry. A compendium of information, clearly written and updated regularly, the manual is all you want to know about each plant with detailed information about the parentage and qualities of many cultivars. Perhaps what makes Dr. Dirr so readable and therefore so usable is his own unique style and sense of humor. The illustrations (many done by his wife Bonnie) are excellent aides in plant identification.

If you are looking for a book for a young person, consider the environmental conservation classic by Dr. Seuss, *The Lorax*, copyrighted in 1971, $6.59 in hardcover. This children’s story was ahead of its time depicting the typical scenario of overuse and greed that leads to depletion of resources and a myriad of new problems. Unfortunately, the lessons of the Lorax are as appropriate today as they were forty plus years ago.
What to do in November/December

Until the ground freezes, continue deep watering of fall-transplanted trees and shrubs.

Spray broadleaf evergreens with an anti-desiccant on a day the temperature is about 40F. Or, protect evergreens (especially broadleaved ones) with burlap screens or shadecloth shelters.

Mulch perennials after soil is frozen. Low or no cost mulches include chopped leaves and pine needles.

Turn the garden soil just before a hard frost is expected. This breaks the hibernation pattern of soil-wintering insects & reduces next year’s pests. Similarly, remove the stems and foliage of annual plants and vegetables to remove the overwinter places of plant diseases and insect eggs.

Provide winter feeding stations for the birds. Hang pinecones covered with peanut butter for nuthatches and chickadees.

Deer-proof shrubs for winter with repellant sprays and/or mesh netting.

Winterize the lawnmower and empty and clean your spraying equipment. Round up your tools, cleaning them with a wire brush if necessary, and apply vegetable oil to fend off rust.

Remember to check your houseplants for any pests. Rotate houseplants to assure even growth.

Do not use wood ashes around acid-loving plants. In fact, check the soil’s pH before apply wood ashes anywhere, because they can raise the pH dramatically.

Collect pine cones for holiday decorating.

Dried herbs make fragrant holiday decorations.

Mistletoe is poisonous, so don’t hang it where berries or plant can fall within reach of children or pests.

Text by Master Gardeners Peggy Bloomwell and Christopher Roblin; photos by David Chinery
“The vine that has been made to bear fruit in the spring, withers and dies before autumn.”

Jean-Jacques Rousseau
(1803-1882, American philosopher, 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 Monday and Thursdays from 9:00 AM to 12:00 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 Tuesdays and Thursdays 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.

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!
Soap Making 101
Cornell Cooperative Extension
Albany County
24 Martin Road, Voorheesville, NY 12186

Saturday, December 6, 2014
10:00 am - Noon

Cost: $25.00
this includes all materials plus a book on soap making

Morning coffee and tea with sweets

Please join CCE staff and Master Gardeners for a morning of botanical craft fun. This holiday workshop features a simple melt and pour soap making technique using a goat milk base. Each participant will craft four bars of soap adding herbs or oils to create a special soap for gift giving or to keep. There will be a variety of mold choices and herbal additions to enhance the end product. There will be a gift wrapping station to adorn each bar in a personal style.

Participants need to pre-register by mailing in a check (made out to CCE Albany) to:
Cornell Cooperative Extension Albany County
Attn: Sue Pezzolla
24 Martin Road, Voorheesville, NY 12186

This class is limited to twenty (20) participants and is open for enrollment until November 26, 2014.