Trumpet Vine

Knowledge for the Community from Loudoun County Master Gardeners

Fall 2012

Volume VIII, Issue 4 www.loudouncountymastergardeners.org

LOUDOUN COUNTY MASTER GARDENER LECTURE SERIES

FREE AND OPEN TO THE PUBLIC, 7PM

Oct. 4. *The Chestnut Story*, Catherine Mayes, The American Chestnut Foundation at the Extension Office, 30B Catoctin Circle, SE, Leesburg

Nov. 1. *Growing and Planting Trees*, Brian Mayall, Casey Trees, at Rust Library 380 Old Waterford Rd, NW, Leesburg

For more information, please visit our web site at loudouncountymastergardeners.org

SAVE THE DATE

2013 GARDENING SYMPOSIUM. April 6 and 7, 2013 at the Ida Lee Park Recreation Center, Leesburg, VA.

Two glorious days of great speakers, vendors and non-stop garden talk.
Watch for the Winter Trumpet Vine for full details.

Visit us on Facebook: Master Gardeners of Loudoun County, Virginia.

Fall is Finally Here

This year fall begins in the northern hemisphere on September 22, at 10:49 a.m. Eastern Daylight Time when the center of the sun crosses the equator, marking the autumnal equinox. For a brief period, days and nights around the world each last close to 12 hours. Then, as the earth continues its path around the sun, days become shorter and nights lengthen. This change in the amount of light is a signal to animals and plants of changing seasons. This year, fall, with its cooler temperatures and crisp air, will be especially welcome after an exceptionally hot and dry summer.

The articles in this issue of the *Trumpet Vine* look at the many aspects of fall in the garden: extending the growing season, preserving your harvest and selecting a cover crop (green manure). Also, it's great fun to grow plants—ranging from vegetables to trees—from seeds you have gathered yourself. Learn how to gather and store seeds for rewards in the spring.

Fall presents us with a dazzling array of nuts, pods and seed heads that can be incorporated into floral arrangements or used in whimsical crafts. Get some new ideas for using natural materials and learn techniques to make your next flower arrangement unique.

Whether it's bulbs, perennials, shrubs or trees, fall is the best time to plant. Find out about new plants and trees and learn how to cope with utility pruning.

Finally, look ahead to the winter and consider joining the Master Gardener Training Class of 2013.

Notable Loudoun County fall events:

- Oct. 13 Family Stream Day, 11-3PM, Chapman DeMary Trail in Purcellville, VA
- Oct. 20-21 Fall Color Tour, Demonstration Garden, Ida Lee Park

Enjoy this fall to its fullest.

Autumn, the year's last, loveliest smile. William Cullen Bryant

Master Gardeners Engaging Loudoun's Youth

Loudoun Master Gardeners strive to serve the community as broadly as possible to meet Loudoun homeowners' sustainable gardening and landscape management needs. Through the years, Master Gardeners have rolled out a variety of programs to meet these goals, two of which are the *Children's Education Team (CET)* and *Garden to Table (G2T).*

These two teams are being featured in this fall issue because of their complementary work with Loudoun County schools. The demand for the services of these two teams attests to their value.

The **Children's Education Team's** vision is to share knowledge and enthusiasm for sustainable gardening with Loudoun's children through fun and educational activities. Let's take a look at the CET in action:

Photo courtesy of Michelle Morrow, head teacher.

In 2012 so far, the team has received 35 requests that range from a Demo Garden tour and scavenger hunt, to kids workshops, to 3-sisters planting (corn, beans, and squash), to chaperoning kids at Banshee Reeks, and teaching childcare providers how to use gardens to educate their children.

For the July 4 celebration at Ida Lee Park, MGs offered "Color in the Garden" activity for kids. Developed for elementary aged kids, even teenagers enjoyed this activity. There were also kids' activities in the garden during the Spring Farm Tour and 4H Ag Day. Next will be the Fall Color Tour, Oct. 20-21.

CET's achievements have attracted the attention of local organizations who want to share resources: GreenKids, sponsored by the Audubon Naturalist Society; Newton Marasco Foundation, a local nonprofit sponsoring nature-education books and materials; and the Yellow Tractor Program, which sponsors edible gardens for kids.

The vision for the **Garden to Table** or **G2T** program is to teach residents of Loudoun how to grow their own vegetables and most of all, show them that they can. Most people think they cannot grow veggies in their backyards because they do not have space or the equipment or the time. In the meantime, kids are not sufficiently exposed to freshly grown vegetables. Worse, many do not like vegetables! What to do? G2T works with homeowners, community groups, and schools to start vegetable gardens and get them growing.

G2T picks up from CET in this activity. The focus expands beyond educating kids directly to working with adults such as science teachers, and school groups, such as the PTA/PTO or the Ecology Club, to make sure the kids get to experience or exposure to vegetable gardening.

For example, G2T was involved starting the vegetable garden at Smart's Mill Middle School and continues to help monitor its success.

Also consider this side benefit: Gardening activities fulfill SOL (standards of learning) objectives and may even be used as a grade 'make-up' activity. Cool!

Starting the Smart's Mill garden

Maria Daniels, Master Gardener Intern

We Want You For The Master Gardener Class Of 2013!

Whether amateur or expert, Loudoun County Master Gardener volunteers share a passion for gardening and they put that passion to good use in a number of ways that directly benefit our community. Ask a volunteer how they benefited from the program and there's a common theme: as a Master Gardener, you become part of a community of like-minded individuals, make new and enduring friendships and embark on an incredible learning journey. Direct quotes from recently graduated Master Gardeners:

"I wanted to do volunteer work in something I love and I also wanted to learn more about gardening and plants. Besides the wonderful friendships that have formed, I think another unexpected benefit is the plant swaps where I've gotten plants that survive in this Virginia clay!"

"Where else can you find people who want to debate the merits of pole beans vs. bush beans or how to prune clematis? My husband and family were tired on my one-sided conversations about gardening!"

"I am a very popular dinner party guest when people find out I am a Master Gardener! Everyone has question and if I don't know the answer I know how to find it!"

"The plant clinics are such fun and I learn so much from working with other Master Gardeners."

"Working in the Demo Garden is such a pleasure. It's not only beautiful, but it's so rewarding to know that all of the food grown there goes to feed those in need in Loudoun County."

"Twice a week I eagerly attended a class that really taught me how much I didn't know. I'm now completely organic in my gardening and I get to share all that I've learned and continue to learn, with others."

Another great benefit is the numerous opportunities for continuing education through workshops, lectures, field trips and the annual Master Gardener College at Virginia Tech. Master Gardener volunteers have many opportunities to use their skills and to learn new ones. You'll learn plant and insect identification, what to prune and when, and even the art of making compost. For those who are interested, there are opportunities for public speaking, writing, fundraising and event planning. Master Gardeners work with our schools and community gardens. They answer client questions at the Extension Office Help Desk and at Plant Clinics in the county. There's the dirty-hands part too, working in the award-winning organic Demonstration Garden at Ida Lee Park. We also have opportunities for members interested in technology, graphic artistry, event planning and more. You may have heard the phrase "right plant, right place," it works for people too! The Master Gardener program is so diverse that everybody can find his or her niche!

You're reading our *Trumpet Vine* so you probably have an interest in gardening, and maybe you've even wondered about what it takes to become a Master Gardener volunteer. You'll find details about the program and the application online at http://www.loudouncountymastergardeners.org/becomeanmg.htm. **Take the leap! Submit your application** by November 1, and you'll receive $25 off the $225 application fee. If you need more information, please come to the Applicant Open House/Social on November 8th, 7 p.m. at the Extension office in Leesburg, where Master Gardeners will be on hand to answer all your questions.

Jill Johnson, Master Gardener, Class of 2011

Extend the Growing Season

As the days of summer shorten, unfortunately so does our growing season. It is time to begin constructing clever season-stretching devices that will add many weeks to the growing season. The trick is to design structures that are simple, but sturdy enough to withstand the strong winds and freezing temperatures of fall and early winter.

The first step is to consider the type of plants you are interested in protecting. Plants such as spinach and lettuce don't need as much heat as more tender crops. For these cool loving plants, a growing tunnel should do the trick. For less hardy plants, the cold frame option is like a mini green house, without the cost.

Making a Simple Tunnel

Growing tunnels are an easy and economical structure to construct. The lower and sturdier the tunnel, the better. My favorite method of making hoops is to use small diameter (1/2") plastic PVC pipe—but, simple hoops can be constructed from a variety of materials, such as stiff wire, fiberglass rods, saplings, rubber tires, and more. The tunnel is constructed with a series of hoops placed along the garden bed, and covered with greenhouse plastic or floating row cover. This is stretched snugly over the hoop frame and fastened securely along the ground with heavy weight, such as bricks or piles of dirt. My favorite method is to secure the row cover using spring clamps at the base of each hoop, and anywhere else required. Most importantly, it must stand firm in the wind.

Super Easy Cold Frames

Gardening guru Eliot Coleman asserts that "the basic cold frame is the most dependable, least exploited aid for the four-season harvest," and I fully agree. A cold frame is a brilliant method to shelter plants from blustery weather, and heat up the soil whenever the sun shines. It is any type of boxed-in growing area, with a clear top that admits light and traps heat. Options for the frame include untreated 2-by-4 or 2-by-6 pine boards, bales of hay/straw, concrete blocks, bricks, logs, etc. Try covering the frame with shatter-resistant tempered glass patio doors or shower doors, which tend to be heavy enough to resist strong winds. These often are discarded during remodeling projects, and prove to be better finds than standard storm windows or paned windows, which can be a safety hazard.

Growing tunnels and cold frames can extend your growing season far beyond the mere protection from frost. It is possible to reap the reward of a four season harvest.

Karen Olgren, Master Gardener

Canning to Provide Healthy Food for Yourself and Your Family

I have long believed that to do anything well, the fundamental principles of the objective must be understood to some degree. I have found that a sound understanding of these principles allows for successful adjustments to basic recipes that better fit my health needs and taste preferences. And, more importantly, helps me avoid harmful mistakes that might result in spoilage or in food quality disappointments. In general I have found that understanding, to some degree, why I am doing a task a certain way will ensure the ultimate success of that task. These principles of canning are based on the scientific principles of chemistry, physics and biology. But, don't panic, I intend to explain these things as simply as possible because we don't need to know the mathematics of physics and chemistry or the name of every harmful microorganism involved to succeed. We only need to understand, a little, some very basic concepts. I will also include a couple of recipes that will demonstrate how I apply these principles and, I hope at the same time, allow you, the reader, to apply these principles in a way that may better suit your own tastes and preferences.

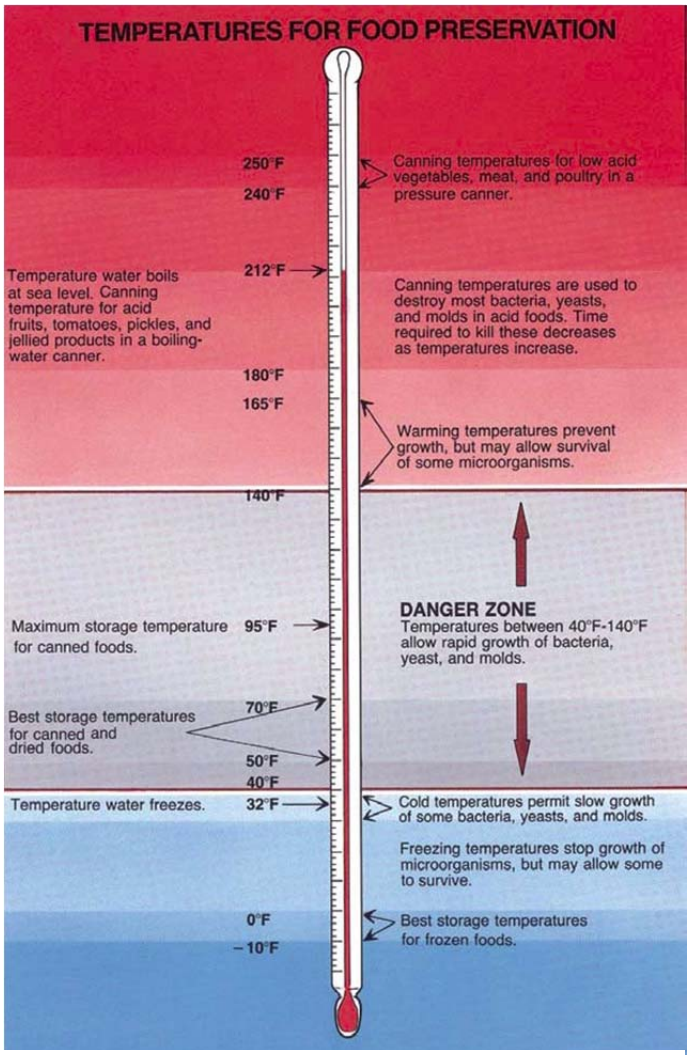


Figure 1: Temperature chart

Let us start with the biological component of canning. Our fundamental goal is to destroy these microorganisms found everywhere in everyday life, that when allowed to grow in your food will spoil it and maybe even poison us if we get careless. We do this through cleanliness and the application of extreme heat.

Cleanliness is extremely important. Each canning jar and any utensil used for food handling must be scrupulously clean. Sterilization is necessary for hot water bath canning but not required for pressure canning. Carefully inspect each canning jar for food or other contaminants. Also check the top edge of the jar, where the seal will rest, to ensure that the edge is smooth and even. Discard any chipped jars because they will not seal. Use a brush and good dish detergent to clean the jars, if necessary. Afterwards, run them through a cycle in the dishwasher, if you have one. Cleanliness is the first step in avoiding contaminants that may damage the quality of the food either in taste or spoilage.

Temperature is critical to the growth and destruction if microorganisms. We should all know that leaving warm food out to cool encourages the growth of harmful micro-organisms because a range of temperatures slightly above room temperatures is the perfect environment for microorganism growth. There is a range of temperatures at which microorganisms cannot survive. It is these temperatures that we use in canning to preserve and protect our food for safe storage.

Achieving the correct temperature is a critical step in successful safe canning. Failure to reach and maintain the correct temperature will result in food spoilage and even illness if care is not taken. We should know, from high school science class, that, at sea level, water boils at 212 degrees Fahrenheit. Chemistry tells us that it is not possible to achieve a higher temperature for water or steam at sea level using an unpressurized container. However, we can use this temperature to safely process high acid fruits, tomatoes, pickles and jelly products. Higher temperatures can only be produced with a pressure canner.

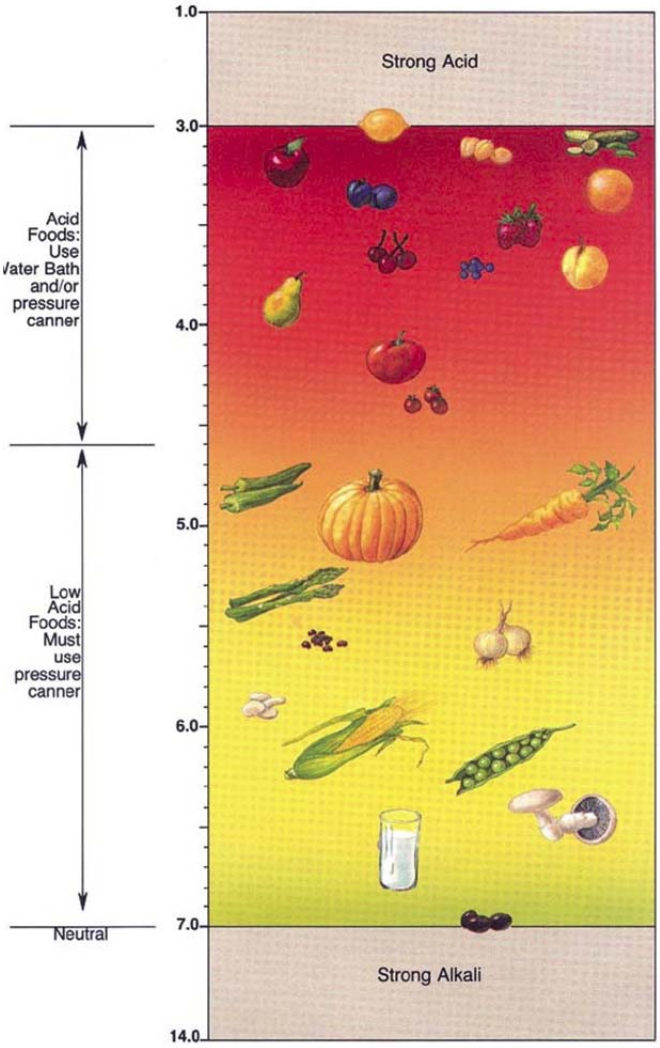


Figure 2: pH chart

Chemists use a measure called pH to set a value on acidity and alkalinity. This scale ranges from a value of 1.0 for very high, and dangerous, acidity to 14.0 for very high, and also dangerous, alkalinity. As you can see in figure 3, the pH range for food runs from a value of 3.0 (fairly acidic but not dangerous) to a value of 7.0, which is considered neutral. The pH range above 7.0 is considered alkaline and there are no foods found in that range.

Foods with a pH value ranging from 3.0 to 4.6 can safely be processed in a boiling water bath canner. You may ask how to determine the pH of the food you wish to preserve. There are several ways to do this. One way would be to buy a pH meter or pH paper from a scientific supply store. I have found, from experience, that pH meters are terribly expensive and quite fragile. And, pH paper is also expensive, difficult to use and a bit messy. Actually, it is far simpler to look up the food in the United States Department of Agriculture (USDA) Guide to Canning

Given an understanding of important criteria in food canning, it should now be possible to select the optimum method for food preservation. The next step is to decide what to can and how to can it. Here are two examples of canning that will demonstrate the two methods. First, let's can some whole tomatoes.

The process for canning tomatoes is quite straight forward. The details for each step can be found in the *USDA Guide to Canning*.

First, select healthy ripe fruit. Make sure the tomatoes are firm and have no blemishes or just very minor blemishes, you be the judge on that. It is hard to make a mistake.

Second, clean and prepare the fruit. The best way to remove the skins is to scald the tomatoes in boiling water for about 2 minutes. Then, place the fruit in very cold water. You should have lots of ice on hand for this step. With a sharp knife, gently slit the skin, grab it with your finger tips and peel it off. Blemishes tend to be impossible to peel, so use the sharp knife to slice the blemished skin from the tomatoes. Place them in sterile wide mouth 1 quart canning jars. Some recipes call for salt to be added. I do not use salt as a

personal choice. While filling the jars, use a thin spatula to adjust the fruit and allow air bubbles to escape. Do not add water; just squeeze juice from a damaged tomato to fill the jar. Be sure to maintain at least 1 inch space from the rim to the contents

Figure 3: Filling the jars

Third, when the jar is full of fruit and juice from the fruit, you are ready to start processing the jars. Carefully wipe the rim of the jar and place a sterile seal on it. Place a band on the jar and tighten hand tight. Do not over-tighten.

Fourth, process the jars in your canner of choice. For hot water bath, boil for 40 minutes. If you use a pressure canner, then process them at 11 PSI for 25 minutes.

Fifth, when processing is complete you can remove the jars from the canner to cool. Take care when opening the canner to avoid steam burns. Place a towel on your counter for protection from the heat. Place the jars on the towel with a few inches of space between jars to allow for good air circulation. Wait for the jars to seal. You should hear a loud ping as each jar cools enough for the atmospheric pressure to push the dome of the seal down in response to the vacuum inside the jar.

Figure 4: Ready to process with spacers

Sixth, when the jars are cool enough to handle, test each jar to ensure that the seal dome has been drawn down. Reprocess or refrigerate, and use the contents of any jar that has not sealed. Remove the bands from all good jars. Clean the outside of each jar thoroughly to remove food particles from under the edge of the seal. And, finally label each jar with the contents and date processed.

Now for something more interesting, here is my personal recipe for spaghetti sauce.

12 pounds low fat hamburger
8 quarts diced whole tomatoes skinned (use your home canned tomatoes)
8 quarts tomato sauce
8 pints tomato paste
3/4 cup chopped garlic
3/4 cup Italian Seasoning
3/4 cup grated parmesan cheese

Thoroughly brown the beef and drain off the fat. I collect the fat in a container and stick it in the freezer for about 20 to 30 minutes. When the fat congeals, I discard the fat and return the liquid broth to the meat. Thoroughly mix all of the ingredients in a very large container or two. Fill each wide mouth quart with the uncooked mixture leaving a 1 inch head space.

Process the jars at 11 PSI for 90 minutes. The recipe makes about 22 quarts. Since most canners can only process 7 quarts at a time, you will find it necessary to use a spacer or two to fill the canner for each batch. My method is to adjust the batch size to minimize the use of spacers. A spacer is a jar half full of water

inserted in place of a jar of food. In this case, I did one batch of seven jars and three batches of 5 jars with 2 spacers.

Figure 5: Bands removed and ready to wash.

The activity inside the canner can get pretty violent at times. When you open the canner to remove the processed jars you will find that some of the liquid has escaped the jars and is now mixed with the water in the canner. Unless a jar has broken, you do not need to clean the canner after each batch. However, because of the leakage, occasionally a food particle might spoil the seal and the jar will not seal properly. When this happens, I usually celebrate my success with a spaghetti dinner the next evening.

This recipe can be converted into a marinara sauce by leaving out the hamburger. It will make about 18 regular quarts or 36 regular pints.

Resources:

USDA Complete Guide to Home Canning (http://nchfp.uga.edu/publications/publications_usda.html)

Ball Complete Book of Home Preserving", by Judy Kingry and Lauren Devine

Happy Canning!

David Sheckler, Master Gardener

Growing Native – Get Nuts for Clean Water

Sponsored by the Potomac Conservancy, *Growing Native* engages thousands of volunteers in the Potomac River region each year to collect native hardwood and shrub seeds. The seeds are donated to state nurseries in Maryland, Pennsylvania, Virginia and West Virginia, where they are planted and used to restore streamside forests throughout the 15,000 square mile watershed. Since Growing Native's inception in 2001, nearly 56,000 volunteers have collected more than 164,000 pounds of acorns, walnuts, and other hardwood tree and shrub seeds. These seeds have generated seedlings that will be used to restore sensitive streamside lands.

In addition to providing native tree stock, Growing Native builds public awareness of the important connection between healthy, forested lands and clean waters, and what individuals can do to protect them.

Seed collection sites will be operating in September and October.

All the information you need, including how to collect and where your closest seed collection drop-off sites are can be found on the Growing Native website, http://growingnative.org/.

Green Manure

Green manure—the term doesn't conjure up visions of beautiful vegetable gardens does it? In fact, it sounds like something to be avoided at all costs. If you are looking for a cost effective means to improving the soil for a healthier veggie garden, green manure is the way to go.

Contrary to the famous saying, green manure doesn't "just happen"—it's an important component of an ongoing, intentional soil improvement program. Green manure references crops that are grown only to be tilled back into the soil and decompose thereby increasing nitrogen and organic matter. The terms "green manure" and "cover crop" are often used interchangeably; to be accurate, it is a cover crop while alive and green manure when decaying. For the most part, the term green manure will be used in this article to cover the full life cycle of the plant.

The benefits of planting green manure crops are many, and there are few practices that provide such a wide range of solutions to so many soil challenges:

- Green manures provide inexpensive sources of organic material and nitrogen.
- The growth and tilling of these plants improves soil texture and structure, helping to reduce compaction and prevent erosion.
- By planting green manure in the fall, we can reduce the leaching of nutrients that can occur during heavy winter and early spring rains.
- It can also serve as living mulch that reduces weeds, while at the same time attracting beneficial insects.
- Several recent studies have shown that the use of green manure can lead to increased crop yields.

We usually associate the use of green manure crops with larger farms and commercial operations. Yet this is a practice that anyone with a small vegetable or flower garden can incorporate into their gardening routine. Any area of your garden that will remain unplanted for a time, or is in need of soil amendment, is a prime target for green manure crops. So what plants constitute green manure, and which ones should you choose for your garden? It all depends upon the time of year and what soil problem you may be trying to solve. As always start with a soil test that can pinpoint what may be lacking in your soil.

Plants that can serve as green manure crops fall into two categories: legumes and non-legumes. If you are trying to increase the amount of nitrogen in your soil, then legumes are the green manure for you. Commonly used legumes include: alfalfa, clover and vetches, as well as peas and beans. The roots of leguminous plants interact with the soil bacteria, and are able to draw and "fix" nitrogen from the atmosphere for plant use. Nitrogen accumulation from legumes is significant, ranging from approximately 40 to 100 lbs. per acre. Legumes are typically sown in the spring and summer.

Clover

Hairy Vetch

Mustard

Non-legumes, such as winter wheat and winter rye, barley and other grasses, brassicas and mustards provide valuable sources of organic material with their large plant canopies and can improve soil structure. The addition of this organic material helps improve the movement of air and water through the soil, and adds nutrients. These plants are easier to establish than legumes, and germinate more quickly, making them an attractive choice for fall sowing.

As summer ends, now is the time to incorporate green manure into your garden plans. Typically, green manures are sown several weeks before the first frost, at a rate of three to four pounds per 1,000 square feet. These crops should be then be tilled back into the soil in early spring, about a month before the final frost. Remember to broadcast the seed with care! If hand tools will be used next sprint to turn your cover crop into the soil, take care not to broadcast the seed too thick. For example, some vetches, if seed is applied too thickly, can be almost impossible to turn over with a pitch fork.

In the Demonstration Garden at Ida Lee Park in Leesburg, maintained by the Loudoun County Master Gardeners, green manures/cover crops are used regularly to protect from winter erosion, and again throughout the year in large areas that may be done producing other crops. Normalee Martin, Demonstration Garden Leadership team, reports that crimson and red clover, oats, hairy vetch and buckwheat were grown last winter. All of these were relatively easy to turn manually; however, she did caution that winter rye will require a rototiller.

To learn more about green manure, check out the following websites:

- Cornell: Improve Your Soil with Cover Crops www.gardening.cornell.edu/factsheets/ecogardening/impsoilcov.html
- Virginia Tech: The Organic Way – Selecting Green Manure Crops for Soil Fertility http://pubs.ext.vt.edu/2906/2906-1374/2906-1372.html
- Virginia Tech: Building Soil Organic Matter with Cover Crops http://pubs.ext.vt.edu/2906/2906-1381/2906-1381.html

Typically when gardeners look to the fall, we think about cleaning up our gardens, planting bulbs and opening catalogs to dream about next year's garden. Not so fast! This year remember that your soil needs some attention before winter starts and get planting!

Jan Lane, Master Gardener Intern

New Native Plant Data Base

Albemarle County's Natural Heritage Committee, local native plant experts and County staff have created a comprehensive list of the best growing, commercially available and most showy native plants that are found in Albemarle County. This list of native plants is available as an online searchable database at www.albemarle.org/nativeplants. This should be useful to residents throughout the piedmont region including Loudoun County.

Something New for Fall 2012

Anemone hupehensis – Windflower 'Pretty Lady Emily'. I love anemones, with their flowers waving in the breeze and adding an unexpected pink color to fall and this new intro is great for those who don't have the space for the larger growing types. It has a dwarf habit with plants reaching 16" high and 24" wide. Flowering height is 18" with showy masses of 2"double pink blooms. They can handle full sun to part shade. Prefers moist soils and will not tolerate long periods of dryness. Provide extra shade in very warm climates

Acer rubrum 'Framett' A new and distinct Acer rubrum cultivar, the Framett maple is characterized by its variegated pigmen-tation of the leaves that varies with the age of the leaf. The Framett maple also has distinct fall coloration. The yellow areas of the leaf turn into a purple and pink mixture early in the fall. After **initially** turning pink and purple the leaf then turns a reddish-brown in the late fall. The Framett maple is also characterized by its drought and cold tolerance. A mature Framett will grow 30 to 35 feet tall and 15 to 20 feet wide. To get the best coloration full sun is recommended but their can handle partial sun; moderate to heavy moisture. Tip borer can be a problem.

Distylium **'Vintage Jade' PPAF** I had never heard of or seen this particular plant variety but loved the compact, low-spreading growth habit. In reading about them I found out the Distyliums are members of the Witch hazel family and are essentially unknown in American gardens. I think that is going to change – they are evergreen, disease and insect resistant shrubs. Distyliums are also drought tolerant, heat and wet soil tolerant. They are an excellent replacement for junipers or hollies as a foundation planting. As an added bonus they have small reddish maroon flowers in late winter; full sun to partial shade.

Loropetalum chinense var. rubrum - Crimson Fire loropetalum. I have loved these plants since I first saw them in North Carolina helping my brother with his yard. They make an excellent substitution for barberry which can be invasive here in VA. The one concern was their winter hardiness, which has been improved with this variety. Cultural requirements; full sun to partial shade; moist, well-drained, acid soil. Crimson Fire has a compact, mounded, spreading habit, 18" high by 24" wide after 3 years, with neon-pink flowers in spring and rich ruby-red persistent foliage.

Hypericum 'Kolmapuki' - Everlasting™ Pumpkin St. John's Wort. I am going to plant several of these, then I won't have to spend so much money buying them from the florist! I love the bright orange hips. Pumpkin can be used as a specimen plant or planted in drifts, growing 30" to 36" tall and wide; a drift of these would be breath taking. Give them full sun with slightly moist soil. With little to no pest or disease problems this is definitely a plant worth checking out.

Veronica 'Tidal Pool' - Speedwell**.** I have a front walk that is a straight path from house to sidewalk that I dislike. Luckily the concrete is cracked and falling apart. Luckily? You ask. Yes, because I can pull up some up that concrete and plant little creeping plants like this wonderful Veronica! And it blooms well into autumn! The small, oak-like leaves are evergreen, medium green with a faint silvery-blue cast from its slight pubescence. 'Tidal Pool' forms a dense, uniform, low, spreading carpet, with prostrate stems that root as they spread. Plants grow from 3 to 4 inches tall and will spread upwards of 30 inches wide in a single season. 'Tidal Pool' does best with full sun and a well-drained, medium-moist to dry soil. Quite drought-tolerant once established. Deer and rabbit resistant.

Punica granatum '**Purple Sunset™' -** I couldn't resist including this pomegranate when I came across it. I love the color combination. Its borderline in our zone so may be best to grow in a pot and bring inside in the winter — or be prepared to wrap it. With orange flowers and purple fruit from spring to fall and then yellow foliage in the fall this plant gives you a lot of bang for your buck. Give it full sun; moist, well-drained soil. It has a compact, upright growth habit, reaching 4' by 3' after 4 years.

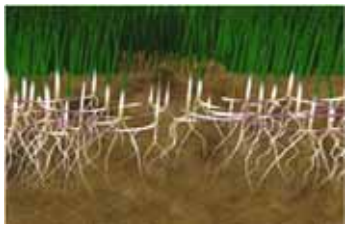
Everlasting™ Series of Hydrangeas - I love hydrangeas! All of them. I currently have ten plants and will be putting several of this series in as soon as I find them at a garden center. What's not to love? They have amazingly tough stems, strong, deeply colored, thick leathery foliage with strong, long lasting mop head blooms that start with various shades of green and age to multiple shades of green, pink, purple, blue and red and then finally back to green with a hint of the previous color! Full sun to partial shade, hydrangeas need moist, but well drained, soil. Not deer resistant.

Becky Phillips, Master Gardener

Rhizomatous Tall Fescue (RTF) in the Demo Garden

The Demo Garden team has planted a relatively "new" type of grass seed in one of its turf beds. It's called rhizomatous tall fescue – RTF for short. As you know, tall fescue is the seed most used in this area. It is hardy, tolerant of drought, heat, and foot traffic, needs relatively little water and fertilizer, and provides a generally good looking lawn for most suburban homeowners. It has drawbacks, however; one is that it is a "bunch" grass, i.e., it grows outward in clumps from a single seed, and does not employ rhizomes — underground tubers — to propagate itself laterally along the ground. That means most tall fescue lawns require annual overseeding, whereas other types that produce rhizomes, such as Kentucky bluegrass, will fill in bare spots without reseeding.

As it turns out, a few tall fescue varieties do, in fact, produce rhizomes – although relatively small. Some nurseries have begun to cultivate these in a fashion that encourages rhizome growth. They are packaging the product seeds for sale, (names include Labarinth RTF, Grande II, Titan Ltd., Rendition, Kittyhawk 2000 and Winter Active Fescue) and make ambitious claims for them. Here's just a few:



Root and rhizome growth

- RTF requires less overseeding, has fewer weed problems
- Quickly fills in damaged or open spots with new shoots of grass
- Excellent in the transition zone climate *(That's us.)*
- Will not brown out in the intense summer heat
- Shade tolerant
- Environmentally friendly, reduces chemical and fertilizer inputs

Testing of these products at Universities and Extension Services has produced mixed results. Certainly, they have demonstrated that RTF does not meet the exaggerated claims their nurseries make. On the other hand, with patience and the right cultivation practices, the test results suggest that RTF might constitute a step forward.

RTF is not yet widely available. You have to order it online, and even then at a premium price. Your friendly Demo Garden Team decided to try its own hand at RTF and plant a small plot as an experiment — just in case it becomes popular. We'll keep you posted on our results.

Jim Kelly, Master Gardener

Fall Tree Care Tips

- Fall is the best time to plant many trees. The cooler temperatures allow good root development.
- Wrap new evergreens for protection: netting for deer, burlap for wind.
- Water evergreens and newly planted trees to keep them from drying out during the winter.
- Prune trees only for the three D's - dead, diseased or damaged. Wait until late winter or spring for a more thorough pruning.
- Do not fertilize so trees can go into dormancy. Wait until spring.
- Watch for bagworms, fall webworms and tent caterpillars. Prune out and destroy.

Janette Sawyer, Master Gardener, Tree Steward Intern

What is that webbing in my tree?

This is a question often asked of home owners in the early fall. The answer is that you are observing the life cycle of the fall webworm.

In June, webworms are beautiful white moths that lay their eggs on the leaves of trees and bushes. The eggs hatch into caterpillars that feed in groups, which are protected from predators by working within the safety of their intricate webbing. By mid-summer, the caterpillars form cocoons within their webs and emerge as moths. More eggs are then laid on the tree leaves. The process continues until early fall, when the webbing could cover a large portion of a tree or bush. Fortunately, most trees can survive a single defoliation at this time of the year.

Losing their leaves in August is not a disastrous event for a tree. Throughout the summer the tree has been busy making energy through photosynthesis. By August, the tree is in good shape for winter, and it would have lost its leaves in a few months anyway. BUT, if this pattern of defoliation continues over the next few years, the tree may become weakened. Next spring, make sure that the tree gets plenty of water in the spring (at least one inch irrigation/or rain per week). It will need those new leaves for growth.

So now you are wondering two things: 1) will the webworms return next year? and 2) is it possible to prevent future webbing issues? Most likely, they will return. The best prevention method is to target the first generation in the early summer. Look for early signs of webs, and destroy the caterpillars. If pruning is required, be careful not to prune away too much of the plant and risk more stress. High pressure spraying is helpful.

A webworm problem tends to be cyclical, birds, native wasps and assassin bugs, among others, prey upon the caterpillars. It is just a matter of time before nature brings the webworm to a tolerable level. We can help them by responsibly refraining from unnecessary insecticide use, by having a better understanding of the biology of this pest.

Karen Olgren. Master Gardener

Monarch butterfly caterpillar

Did you know? The average caterpillar has 4,000 muscles, and 248 in its head alone!
Caterpillars are the larval stage of moths and butterflies in the order Lepidoptera. Over 180,000 species fall into this classification.

How's Your Weather?

Have you ever wondered why your friend in a neighboring town or county told you they received lots and lots of rain and nary a drop fell at your home? How can that be? Do you doubt her statement? Or perhaps you have wondered exactly how much rain you got from last night's storm.

Every good Master Gardener knows how weather affects our lifestyle. Wherever your interests lay—trees, shrubs, flowers, vegetables, or grass—we are dependent on the weather and specifically, on precipitation.

Over the years I have become very interested in "weather," and have become active in three weather-focused organizations. The Washington Post's Capital Weather Gang online blog is one local blog that I find very useful. This is a site by local meteorologists who report the weather with daily reports starting at 5:00 am (sometimes hourly if inclement weather is predicted or occurring.) They have interesting weather-related news articles and contributions to the blog where we amateur meteorologists report what's happening in "our neck of the woods." Some folks may just have weather questions, and the meteorologists or contributors answer them. During impending or occurring storms, it is important to report what is happening "out west" of D.C. and give a "heads up" to those in surrounding counties about what may be heading their way.

I also became a National Weather Spotter after attending two classes sponsored by the National Weather Service (NWS) and now report directly to them any serious inclement weather situations in my area, including serious rain, wind, snow events. The NWS in turn compiles all reports from the Spotters and determines whether a "warning, advisory or watch" will be issued.

Finally, I am a daily contributor to CoCoRaHS. This stands for Community Collaborative Rain, Hail, Snow Network. Check out their site at http://www.cocorahs.org/. I signed up to become a contributor and for a small fee ($27) I purchased a rain gauge (they want you to use a special one that is extremely accurate) and set it up in my yard. Every morning I go out before 9:30 am and take a reading of precipitation that has occurred in the past 24 hours. I then go on line and report my findings. Even if it is zero, they want to know. Who are "they?" Take a look at their website and your questions will be answered. The website is managed by Colorado State University in Fort Collins, CO along with other organizations.

I find it fascinating that someone in Round Hill will get 1.34 inches from a rain event and I will only have .24 south of Hamilton. You can see where the majority of rain has fallen and where the lighter, outlying clouds just didn't produce enough moisture. There is a map of the entire U.S. so you can see if family or friends in other states received precipitation. I have even gotten my computer-illiterate father in Connecticut to join CoCoRaHS. He is now a daily contributor, and, despite being retired and a late riser, is now up and reporting early. It has become an addiction of sorts for me and when traveling, I check the site daily to see what weather is happening in Loudoun County. (After traveling, there is a "multi-day report site" where I report the dates I was gone and total accumulation during that time.) This is a volunteer organization and dependent on getting as many volunteers as possible to provide weather information.

CoCoRaHS is an advocate of Master Gardeners and their homepage contains a link that will take you to Master Gardener information. Nolan Doesken, the man in charge, is very hands-on. He encourages you to email your questions to him. I have even called Colorado and spoken with a helpful person who answered my questions. CoCoRaHS is in need of more volunteers so please, if interested, watch this very short video to help you get a feel about the organization and sign up. I am so happy I did!

Mark Twain said "Everyone talks about the weather, but no one does anything about it." Join CoCoRaHS and do something about it!

Monique Wilson, Master Gardener

Collecting Seeds

People collect seeds for lots of reasons. Some farmers and gardeners systematically save seeds from plants that perform well or from treasured heirloom varieties. Other gardeners enjoy the simple challenge of propagating plants from seed; they propagate plants that are hard to find in the nursery trade or enjoy the cost savings of growing perennials from seed. Plus seeds can make a nice gift for another gardener.

Many of us started collecting seeds from hollyhocks, poppies, sweet peas, cleomes, sunflowers and other old-fashioned flowers. This is not hard to do because these are vigorous self-seeders and the seeds on all of these are easy to see and pick. Other annuals, perennials and shrubs are not so simple.

Some things to consider:

- Are the seeds worth saving?
- When do the seeds mature? Where are they? What do they look like?
- How should the seeds be stored?
- Do they require special treatment to germinate?
- When should the seeds be planted?

Seeds from hybrid plants are often sterile and even when they aren't, the plants that grow from the seeds will not be the same as the parent plant. Seeds from diseased plants may carry the disease to the next generation so always collect seeds from healthy plants.

Don't gather seeds until they mature. Seeds are mature or ripe when flowers are faded and dry or have puffy tops. Plants with pods, like beans, are ready when the pods are brown and dry. It's helpful to know where the seeds are and what they look like. For instance, coneflower or *Echinacea* seeds are lodged between the spines in the flower head. If you wait too long to harvest these seeds you will lose out to the Goldenfinch who will pick the heads clean of seeds leaving only the spiny flower heads.

Many seeds are very small. Your seed gathering equipment should include clippers and bags. Cut off the dry flower head and drop into a bag. Once the flower heads are dry, shake the bag hard and the seeds will gather in the bottom. You can leave small sized chaff mixed with the seeds.

Let seeds dry on newspaper or in an open bag, then store in a cool dry place. Store seeds in paper packets in plastic zip lock bags, Mason jars or glass containers with gasket lids. To keep seeds dry place a packet of silica gel in the bag or jar, or if you don't have silica gel packets, powdered milk or rice wrapped in paper napkins will also keep the container dry. Label and date your seed packets. Most seeds last three years but the time varies among different plants. Store your seeds in the refrigerator. When you remove the seeds from the refrigerator, keep them in the container until they reach room temperature before unsealing it.

Seeds of many native plants have built-in mechanisms that protect them from germinating before killing frosts or in time of drought. Seeds in the wild will lie dormant until the conditions are right. In cultivation some seeds need boiling water poured over them, others need a period of cold (stratifying) and others require scarification. Seeds with hard coats may need to be scarified — the process where the seed coat is

modified in some way so that moisture can enter and prompt germination. Lightly rubbing seeds between 2 sheets of sandpaper is a common method of scarification.

Some seeds germinate well indoors under grow lights, giving you and the plants a head start; others seem to simply refuse to germinate unless they are outside. If you are planting outdoors in flats or pots, protect them from squirrels and other diggers. Unless you have prior experience or advice from others, don't plant all your seeds at once. Hold some for an alternative planting method if the first try doesn't work.

An easier solution is to replicate nature and scatter seeds in the fall. Then nature takes its course and the seeds get a natural cold treatment and germinate when they are ready. This is easier to do when you have plenty seeds or aren't emotionally attached to the plants and need to account for every seed!

If you want to collect a certain seed, do some research on proven gathering, storing and planting methods. Here are a couple that seem to be exceptions to the general rules:

Lindera benzoin, **northern spicebush** is a native understory shrub and host plant to the spicebush swallowtail butterfly. It's an early bloomer and shortly after the blossoms fade, tiny oblong drupes (berries) develop on the female plants. In early fall the berries ripen to a brilliant red. The berries are very attractive and have the added value of providing food for birds and other wildlife. This is a very desirable shrub but difficult to get in the trade. However, growing your own is easy. The trick is don't let the seeds dry out. Pick the berries in the early fall and put the berries directly into pots of soil that winter over outside. Simply press the berries about a half inch into the soil. The germination rate is relatively high and the seedlings grow rapidly the next season.

Baptisia australis or **false blue indigo** seeds form in pods which turn black when they are ripe. Collect the seeds before the pods split open. Collected seeds from plants growing in a native setting have an extremely low germination rate due to predation by weevils. Open the pods and sort the seeds outdoors. Then in the spring, scarify the seeds AND soak them in water for a day before planting.

Some seed collecting tips from Master Gardener seed savers:

The tip that I would give people is make sure to mark the name and species and date for the seeds. I can't tell you how many times I thought I would remember, and then couldn't, so the next year was a great surprise to see what came up!

I always save my impatiens seeds and try to get the best and healthiest flowers I can; also look for big, fat pods as impatiens are 'seed poppers' and will 'pop' out their seeds at the gentlest touch! If your seeds are a couple years old or more, test for germination, put 10 seeds on damp paper towels in a plastic bag to determine if the seeds are still viable.

Here are links to some helpful articles and blogs.

http://mrbrownthumb.blogspot.com/2010/10/how-to-save-seeds.html
http://www.loudouncountymastergardeners.org/trumpetvine/09FallTV.pdf
http://urbanext.illinois.edu/hortihints/0008c.html
Vegetable seeds: http://www.wvu.edu/~agexten/hortcult/homegard/seedsavr.htm
Seed Saving Tips & Techniques by Julie Turner (Kindle Edition)

Becky Phillips and Carol Ivory, Master Gardeners

Collect Now for Your Winter Arrangements and Crafts

Early fall is the time to collect the dried flowers, pods, seeds and "weeds" that you will need for your winter arrangements, holiday decorations and crafts. If you wait until December the dried plants you're looking for will most likely be tattered, broken, chewed and unusable. So as you notice the dried flower heads and seed pods in prime condition, let your imagination run wild and don't leave home without your gloves, clippers and a paper bag. You can also buy many of these online but it's more fun to collect them.

Rose hips – don't deadhead all your roses. The hips ripen after the flowers' petals fall off; like leaves on trees, rose hips start out green and turn vivid shades of red and orange, and the colder the weather gets, the more dramatic their hues become. Dried rose hips make beautiful displays.

Acorns from different types of oaks range from large and magnificent to small and whimsical. Gather them now. Online you'll find many directions for different acorn wreaths. Think what you can do with 100 acorns and a glue gun!

Teasel is a roadside weed that is very evident in the early fall. Either unadorned or with a touch of spray paint these are attractive in dried arrangements and holiday decorations. But gathering teasel absolutely requires gloves and clippers; the stems are very prickly and tough.

This is a **trumpet vine seed pod**, sprayed with gold paint. Beads and a seasonal ribbon are added to make a beautiful ornament.

Osage Oranges are too heavy to put on a tree, but they can be decorated and hung from stair railings or rafters. Stud the Osage oranges with cloves and tie it up with a pretty ribbon. Then hang it up where it will look like a pretty ornament, or put several in a large decorative bowl.

Milkweed seed pods are the perfect base for a number of ornaments and crafts. The pear shape lends itself well to creating faces, angels, rain drops, flowers, critters and whatever other creative use the imagination allows. The mouse on the left is a milkweed pod with pine cone scales for ears and broom straw for whiskers. The wreath on the right is composed of pods painted green and edged in gold.

Sweet gum seed pods can be painted gold and piled in a bowl, made into a wreath, decorated with tiny beads glued into the holes or turned into a star with broken toothpicks, glue and silver paint.

Queen Anne's Lace can be dried hung upside down with the flower head buried in a bowl of sand. This will maintain the shape of the flower head when it dries.

There are many dried "weeds" that will add interest to winter arrangements. Watch the roadsides and fields for interesting shapes and textures.

Don't forget to consider cattails, dried lambs ear, staghorn sumac, locust pods, coneflower seed heads, and various grasses. Have fun this winter!

Carol Ivory, Master Gardener

A Gardener's Approach to the Art of Floral Designs

I am an avid gardener and a student of floral designs. My yard provides material for my floral designs from the vegetable and flower gardens along with the shrubs and tree beds. A cup of coffee, sharp pruners and a bucket of tepid water start my ideal morning in garden. Gathering flowers and other plant material to make arrangements allows me to inspect my garden at a different level than I would do otherwise. I become immersed in the beauty of each flower, seed pod or branch. My creative juices start flowing as I think through how to marry the materials together in a particular design.

Flower design uses many of the same principles as landscape design. Selection of flowers and foliage, color, shapes, structure, textures, containers and rhythm all play a role. Color can determine the mood of your design. Red evokes emotions such as love, passion or anger while green is cool, calming – the opposite of red. Color is about relationships. The most stunning, dynamic impact in a design is to use colors that are opposite on the color wheel. Remember the color wheel from art class?

To create a feeling of harmony, use colors that are next to one another on the color wheel. Primary colors – red, blue, or yellow colors, when placed next to secondary colors (made by mixing 2 primary colors), will enhance one another. You may use these same color principles when locating and selecting plants in your garden.

Conditioning your flower materials will extend their life. If I cut flowers to bring the garden into my house, I want the flower arrangement to last for a while. I place my materials in tepid water with florist conditioner for several hours. For woody materials like dogwood, viburnum or lilacs, hammer the stems to allow the plant to absorb more water.

I consider the ability to create good rhythm in the floral design as the element that separates a great design from an average design. Placement of flowers, using odd numbers of flowers, creating geometric shapes within the design and putting heavier material nearer the base of the design all help with achieving rhythm. Practice will help you develop your artistic rhythmic ability.

Be on the lookout for materials. You may find yourself carrying pruning shears in case you spot interesting weeds along the roadways. Weeds, berries, fruit, vegetables, seed heads, or vines are all excellent in arrangements. Some of my favorite materials are lady's mantle with roses, hypericum, dogwood or viburnum, hosta leaves and houseplant leaves. Mahonia, cedars, boxwood, pine, and witch hazel can provide material during the winter months.

Creating floral designs for competition uses the same design principles as you would use in creating a floral arrangement for your home. Some designs may require more creativity, using the plant materials in unusual ways or using fewer materials can often result in a higher scored design. I approach competitive floral designing as a "game", going out into my garden and creating a design primarily from the materials I have available.

In the design on the right, the twig used on the left side was placed upside down making this an abstract design. Notice the linear sculptural containers. For competition the container should not outshine the plant material. That is why a matte black container is a preferred container. I have some interesting pottery that I like to use to hold arrangements however for competition I always lose points when the container is too interesting! White

containers are difficult to use. Make sure you include some white plant material if you are using a white container. Consider looking at "found" objects in a new way. Flea market finds, old tools, lamps, and glassware can all become vessels for your floral design.

My competitive garden club last month had the artistic theme of "Fly Me to the Moon" a crescent design. On the left you can see an example of this design. The design reflects the crescent shape and the flower material was in excellent condition.

In the second design the crescent shape is visible but not as clearly defined as the first design. For competitive floral designs, materials must be pristine – no insect holes! These two designs were made with wet foam (oasis) that holds the materials in place and a combination of materials from the designers' yards and purchased flowers. Notice that the mechanics (foam, wire etc.) are all hidden from view.

Whether you have a flower cutting garden or are trying to make the grocery flower bouquets work, take some time to look at non-flower materials to enhance your arrangements. Try different color combinations, textures and geometric shapes. Have some fun and let your creative juices flow!

If you are interested in competitive floral designs attend the Purcellville Garden Club's flower show at the Purcellville Library, Saturday September 29th, Noon to 4:00 pm. The theme is "music" with three design classes plus horticulture. Check out the how the judges scored each design versus your view.

Alta Jones, Master Gardener

Bulbs! Bulbs! Bulbs!

One of the most exciting fall activities is planting bulbs. They are easy to grow, and provide welcome color to the spring garden. The appearance of bulbs forcing their noses out of the ground is one of the first signs that spring is arriving. Now is the time to plant your bulbs.

Trees vs. Utilities

Since the first utility pole was set, our trees and overhead lines have gotten in each other's way. Our nation has become electrified, too often at the expense of valuable trees.

Property owners complain about the horrible job done by utility pruners. Utilities have to deal with poor tree-planting practices in utility right-of-ways. We, the people, want to enjoy the beauty of trees and have electricity as well.

Tree-trimming guidelines for the Commonwealth of VA state that:

1. "Tree-trimming practices shall consider costs, safety, continuity of service, the health and vigor of affected trees, aesthetics, concerns of property owners, wildlife management, and environmental concerns.

2. Tree-trimming should be performed in accordance with the American National Standard for Tree Care (ANSI) A300*, unless the property owner insists otherwise. Each right-of-way clearing work crew should be familiar with and have access to those standards and these guidelines.

3. In areas where aesthetics are important to the property owner, severe V-notch trimming and sidewalling should be minimized.

4. Utilities shall attempt to notify property owners prior to trimming except when prior approval has been obtained from absentee property owners. A written message (e.g., a letter/notification card/door-hang-tag) is an appropriate alternative when verbal communication is not practical."

* ANSI A300 standards state that these practices should be avoided: topping, tipping, removing branch collars, and leaving long stubs.

What can you do?

If a utility tree-trimmer is pruning your trees and you feel they are not following the VA guidelines, ask to speak to the crew supervisor. Express your concerns. You can request that their arborist come inspect your site. Only when you and the arborist agree on the work will it continue.

If you want to plant a tree under utility lines, plant the right tree. Trees should not be a species that grows taller than 20' within 15' of overhead utilities. VA Tech has a great publication, "Trees and Shrubs for Overhead Utility Easements" that you can get at www.est.vt.edu/pubs/trees/430-029. Dominion Power has a list of suggested trees at www.dom.com/about/safety/tree.jsp.

Working cooperatively, we can reach common ground. We can have our trees and electricity too!

Janette Sawyer, Master Gardener, Tree Steward Intern

Help with Project BudBurst

Project BudBurst[SM] is a network of people across the United States who monitor plants and share their observations of changes in plants through the seasons. Scientists can use the data to learn more about the responsiveness of plant species to changes in climate locally, regionally, and nationally. You can be a regular observer or submit a single report. Learn how to get started at http://neoninc.org/budburst/aboutus.php.

ABCs of Trees

Botanical Name: *Juglans nigra L.*
Common Name: Black Walnut

NATIVE

Zones: 4 – 9

Family: *Juglandaceae*

Habit: deciduous

Form: large tree with straight, full trunk; open rounded crown

Height: 50 to 75 feet

Spread: 50 to 75 feet

Growth rate: somewhat slow growing

Texture: massive, handsome canopy tree

Leaf: alternate, pinnately compound, 12-14", 9-21 leaflets, each leaflet 2-5"**,** lustrous dark green, fragrant when crushed; among the last tree leaves to appear in spring and the first to drop in the fall

Flower: small, yellow green, April-mid June

Fruit: edible, round, 2 -2 ½" across, thick green, non-splitting husk, September to October, upon ripening the husk becomes dark brown to black

Bark: thick, dark brown to black, ridged and furrowed in a rough diamond pattern

Site Requirements: full direct sun; prefers moist soil, tolerates drier soils but will grow much more slowly. Difficult to transplant due to taproot.

Diseases and Insects: European canker, walnut caterpillar, and a new disease, Thousand Cankers Disease, first detected in Virginia in the summer of 2011. This disease is lethal to black walnuts, causing cankers that grow together and girdle the trunk and branches. The fungus, *Geosmithis morbida,* is spread by a twig beetle that tunnels beneath the bark. Currently no control measure is known to be effective against the fungus. Your county Extension agent is monitoring for this disease. If you see an abrupt and dramatic decline in the canopy of a black walnut tree, notify your local extension office (http://www.ext.vt.edu/offices/index.html).

Landscape Uses: planted in the right location, can be a stunning shade tree; however consideration must be given to the surrounding area. Black walnuts secrete a substance called juglone, which upon oxidation, inhibits the growth of many plants within a 60 foot radius, including some conifers and many vegetables. In a lawn area, the nuts present a mowing hazard and a headache to clean up. The leaves bark and nuts are messy and will stain most surfaces (porch and patio). On the plus side, the nuts, bark and sap provide valuable food for wildlife including squirrels, deer, mice, rabbits, sapsuckers, and eastern screech owls (and people!)

Sue Russell, Master Gardener Tree Steward

ABCs of Trees

Botanical Name: *Koelreuteria paniculata*
Common Name: Goldenraintree

Zones: 5 - 9

Family: Sapindaceae

Habit: medium-size tree**,** deciduous

Form: rounded crown

Height: 30 to 40 feet

Spread: 35 feet

Growth rate: medium to fast

Texture: coarse

Leaf: alternate, compound, 6 to 15 inches long. Sometimes the leaflets divide into two or more, making those leaves doubly compound

Flower: yellow — rare among flowering trees. Each blossom is small, held upright in pyramid-shaped clusters 12 to 18 inches long, blooms June - July

Fruit: little three-sided lanterns, light yellow - brown, containing hard, black seeds through October

Bark: furrowed and ridged

Site Requirements: full sun; adapts to many soil types and tolerates air pollution, drought, and alkalinity

Diseases and Insects: good resistance to pests and diseases

Landscape Uses: excellent street tree, good for planting near utility lines and close to paved surfaces. It has a good resistance to pests and diseases. The brilliant flowers blooming into mid-summer extend the flowering season for landscapes.

Note: considered to be invasive or a noxious weed in parts of the East and Midwest.

Related Species:

Koelreuteria bipinnata (Chinese Flame Tree) — a coarser plant with large flowers trusses, reddish-orange seed pods resembling miniature Chinese Lanterns, not invasive.

Recommended Cultivars:

'Fastigiata' — with a narrow crown

'September Gold' — flowering in late summer

Janette Sawyer, Master Gardener, Tree Steward Intern

Allelopathy

Most gardeners know not to put their vegetable garden next to a walnut tree. Vegetables in the nightshade family such as tomatoes, peppers and eggplant as well as woodies such as azaleas, rhododendron and mountain laurel will wilt, yellow and eventually die if planted within the root zone of a walnut tree. The toxic compound in the leaves, bark, wood, nut husks and most highly concentrated in the roots is juglone. Some plants are unaffected by juglone. The effect of walnut trees on other plants is a well-known example of allelopathy.

Allelopathy, from Greek meaning *to suffer from each other,* is the chemical warfare of one specific plant on other specific plants. It's a general term for a wide variety of chemical reactions most of which are not fully understood and vary from one plant to another. Allelotoxins can inhibit growth by inhibiting respiration, cell division, water and nutrient uptake. This can result in delayed germination, slowed growth or death of part or all of the plant. Allelotoxins may also attack and kill the mycorrhizal fungi that benefit many plants.

In contrast, some plants simply acquire more of the available resources like nutrients, water and sunlight from the surrounding environment without producing any chemical or initiating any chemical reaction. This process is called as *competition*. Until the allelotoxins have been isolated and identified, it is sometimes difficult to determine why a plant is doing better than the others around it — it is difficult to differentiate between allelopathy and competition.

Research is currently being conducted to discover dependable and consistent ways that allelopathy can be used in agriculture to control weeds and produce better crops. Crops that seem to show allelopathic properties include wheat, barley, oats, cereal rye and brassicas. Allelopathy may explain some of the positive results of crop rotation and cover crops. Rye and wheat suppress weeds when used as a cover crop and also when used as mulch.

Non-native invasive plants with allelotoxins can have dramatic ecological impacts. They introduce a new dynamic and new toxins that native plants are unaccustomed to in their habitat. Two allelopathic invasives in Virginia are *Ailanthus altissima* or Tree of Heaven and *Alliria petiolata*, commonly called garlic mustard.

Ailanthus produces an allelopathic chemical called ailanthone, which inhibits the growth of other plants. The inhibitors are strongest in the bark and roots, but are also present in the leaves, wood and seeds of the plant. When an extract from the roots was sprayed on herbaceous plants, it killed nearly 100% of the seedlings. Some researchers are looking at the potential of extracting natural-product herbicides from ailanthus. Another experiment showed a water extract of ailanthone was either lethal or highly damaging to 11 North American hardwoods and 34 conifers, with the white ash (*Fraxinus americana*) being the only plant not adversely affected. However, it appears that plants can build up some resistance to the toxin with exposure. Red maple seems to build resistance to ailanthone rather quickly but red oak does not and continues to be adversely affected.

Garlic mustard appears to inhibit mycorrhizal activity in native plants. Like other members of the Brassicaceae, Garlic mustard is nonmychorrhizal, while some 75% of native ground layer plants are mycorrhizal. Mycorrhizae colonize root systems and are critical for nutrient and water uptake. (See the Summer TV for more information on mycorrhizae.) It is believed that garlic mustard allelotoxins attack and kill the mychorrizal fungi that many native trees require for seed germination and seedling growth. Garlic mustard not only outcompetes native herbaceous plants because of its lifecycle and rapid spring growth but it can spread into established, healthy forests and disrupt the next generation of trees.

Watch for more developments in the research on allelopathy.

Carol Ivory, Master Gardener Tree Steward

"Parsley, Sage, Rosemary and Thyme"

Flowering thyme

August's weather grabs our attention. Hot and humid, gardens go dry and settle in. Some plants are spent; some manage the dry conditions better than others. Culinary herbs come to mind, resilient and hardy lasting through summer's heat. September is here and reminds us fall is around the corner. Canning and preserving are well under way.

Culinary herbs have a long history of uses from seasonings, fragrance, and medicine, even charms to ward off evil, or captivate a lover. Most of our favorite culinary herbs are native to the Mediterranean and prefer full sun, good air circulation and well drained soil. Oils, which contain the flavor component in these herbs, have the greatest quantity per plant if exposed to full sun for 6-8 hours/day. These herbs are quite hardy. Pest control is only necessary if you notice a problem.

Drying culinary herbs: I would like to offer some easy tips for gathering and drying your culinary herbs for home use.

1. Clean herb with garden hose the day before picking
2. Gather the next day after the morning moisture has dried off
3. Gather just before the plant blooms
4. When fall comes stop gathering as this allows time for new growth to harden and for the plant to gather carbohydrates for winter use
5. Place loosely on a cookie sheet; put cookie sheet on top of refrigerator to dry which doesn't take long depending on the weather.
6. When crispy to the touch in a day or three place in glass jars. Store in cool dry place.
7. Mix, blend to your culinary taste.

I thought I would focus this month on four culinary herbs that have uses not only as favorites in the kitchen but have long histories of use in the medicine chest.

Parsley: *Apium petroselinum*

Where Found: originated in the warm Mediterranean climates and therefore not native to our country. It became established in England around the sixteenth century.

Parts Used: leaves and roots

Uses: This plant is an excellent source of Vitamin C. One of its most common uses is to make a tea to help relieve excess body fluid.

Caution: do not use this in pregnancy.

Nutrition: thymol found in the leaves in thyme has received extensive testing and found to have antiseptic and antifungal properties; B vitamins; Vitamin C.

Recipe: Trailside Tabouli

- *1 cup bulgur* wheat
- *2 cups* boiling water
- *3* ripe tomatoes, diced
- *1* cucumber, peeled, seeded, and diced
- *1 bunch* fresh parsley, finely chopped
- *1 small bunch* mint, finely chopped
- *1/2 teaspoon* salt
- *1/4 teaspoon* pepper
- *2* lemons, juiced
- *1/3 cup* olive oil

Serves: *4* people

Directions:

1. In a bowl, cover bulgur with boiling water, soak 30 minutes.
2. While bulgur soaks, dice tomatoes, cucumber, parsley, and mint; place in a large container with an airtight lid. Add salt and pepper and mix well. Drain bulgur thoroughly and add to vegetable mixture.
3. Combine lemon juice and olive oil in a coffee cup and stir vigorously with a fork. Add to bulgur mixture. Stir well. Season to taste. Let stand for at least 1 hour in a cool place. Stir and serve.

Camp Tip: Assemble in a sturdy, properly sealed container and chill in a cold stream. Great when camping in a hot climate. Serve with pita bread and a side of hummus.

Sage: *Salvia officinalis*

Where Found: again native to the northern shores of the Mediterranean; evergreen under shrub

Parts Used: leaves, whole herb

Uses: the tea has been known to relieve sore throats, help with bleeding gums; also good for easing a nervous headache and nervous stomach. I find, in general, the herb use interesting in that what seems good to calm a stomach calms the mind and vice versa.

Nutrition: exceptional source of B vitamins; vitamin C and minerals; http://www.nutrition-and-you.com/sage-herb.html

Recipe: Herb Butter

Easy, delicious way to use **culinary** herbs fresh or dried; these can be used to add to soups, vegetable dishes, baste chicken etc.

Soften: 1 stick butter (¼ cup)

Mix in ¼ cup herbs: you can add a blend or single herb

Lemon juice: 1 tsp (optional)

Sea salt to taste (optional)

Place these in container, or shape and keep refrigerated. The foodnetwork.com suggests refrigerated herb butter keeps for one week. Otherwise place in freezer. In a log roll form you can cut any amount if left in freezer for immediate use.

Rosemary: *Rosmarinus officinalis*

Where Found: another evergreen shrub; perennial; native to the Mediterranean

Parts Used: herb, root

Uses: In ancient times rosemary had a reputation for strengthening the memory. As such it was woven in bridal head wreaths or gilded and presented to the wedding couple for fidelity. It was also used in churches and sick rooms, burned as incense or as a room disinfectant.

Rich in history, rosemary finds its way into our gardens, once again brought to this land by the early settlers. Today rosemary is commonly found in hair and skin care products. David Hoffman, in the *Holistic Herbal,* also suggests that rosemary tea is toning and calming to the digestion especially if tension is present.

Nutrition: rich in calcium, magnesium, potassium also Vitamin C.

Thyme: *Thymus vulgaris*

Where Found: mountains of Spain, other Mediterranean countries; perennial woody shrub; bees feed on the flowers and thyme honey is quite a gourmet delight in Greece

Parts Used: herb

Uses: name comes from the Greek word "to fumigate"; antiseptic and disinfectant properties recognized by the early ancients and used to repel insects, disinfect rooms, and as incense; thyme is an excellent remedy for coughs and soothes sore throats; as a carminative, a preparation to combat gas, it can also help with sluggish digestion. Because of its antiseptic properties it can be used externally for infected wounds.

Nutrition: rich in calcium, potassium, phosphorus, magnesium andiron. High in vitamin C.
http://www.nutrition-and-you.com/thyme-herb.html

"Parsley, sage, rosemary and thyme", a familiar refrain, an old song, rich in history and multiple uses, these herbs easily find our way into our gardens. It is my intention to remind us that these plants we use everyday are rich in nutrients. In a simple tea form they provide nourishment that I like to remember on a cold winter day. Blend them, make herbal butters, dry for fall and winter cooking, these and others have an esteemed place in our homes. Enjoy.

Judith Dreyer, MS, FCMG

Notes from the Help Desk:

Q: What perennials should be pruned back in the fall?

A: It is perfectly acceptable to leave all your perennials standing throughout the winter (except the diseased ones). This gives food and shelter to wildlife for many months especially if there is a harsh winter. However, if your perennials are looking very worn and burned out from a harsh summer, then you can prune them back as you wish starting early October. Here are pruning tips on popular perennials:

Fall pruning:

Phlox	Columbine	Coreopsis
Salvia	Lilies	All vigorous reseeders
Bronze Fennel	Mint family plants	

Remove annuals after frost and dig up cannas to store in cool basement

Leave for winter interest and wildlife food/shelter:

Butterfly Bush	Ornamental Grasses
Beautyberry	Coneflowers and like plants

Prune these in February/March

Better if pruned in the spring as they need the plant protection:

Forsythia (prune AFTER flowering)	Mums and Asters
Butterfly Weed	Lavender
Joe-Pye Weed	Russian Sage

Here is a link to our Fall Garden Clean up article from last year:
http://loudouncountymastergardeners.org/trumpetvine/11%20Fall%20TV.pdf (go to page 11)

Q: My young oak tree has branches nearly touching the ground, when can I prune it?

A: As tempting as it may be to prune those branches in the summer to get them out of the way of the mower, it is best to prune oak trees when the tree has gone dormant for the year. The *best time to prune an oak tree is during the months of November and December*.

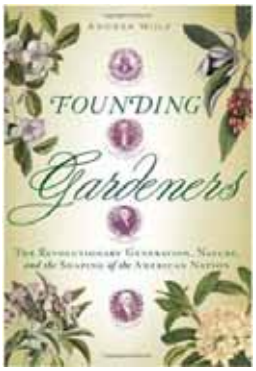
This handy calendar will help guide you on timing of pruning your deciduous trees:
http://pubs.ext.vt.edu/430/430-460/430-460_pdf.pdf

This calendar covers when to prune evergreens:
http://pubs.ext.vt.edu/430/430-461/430-461_pdf.pdf

VT Publications dealing with Trees:
http://pubs.ext.vt.edu/category/trees-shrubs-groundcovers.html

Barb Bailey, LCMG

Founding Gardeners – A Book Review



Founding Gardeners delightfully combines what are two passions for many of us – a love of garden design and early American history. Better yet is the fact that three of the four properties featured are right here in Virginia. *Founding Gardeners* is the latest offering of Andrea Wulf, author of *The Brother Gardeners,* winner of the American Horticultural Society 2010 Book Award. In this current work, Wulf helps us to see George Washington, Thomas Jefferson, James Madison and John Adams as both statesmen and gardeners. Wulf is careful to note that she uses the terms "garden" ("lawns, groves and flower beds, as well as the larger cultivated ornamental landscape of an estate") and "gardener" ("laying out their gardens, choosing plants and directing their gardeners") in their broadest contexts.

The author does an excellent job demonstrating how the founding fathers' passion for agriculture, botany and landscape design is integrally linked to their visions for the new country. Central to their efforts was the focus on agriculture as a means to self-sufficiency, which would in turn further our independence from Great Britain. Rather than exporting America's rich material resources, these leaders wanted to see the new country further expand its range and production of crops to supplant the use of imports. Jefferson and Madison are seen encouraging New England maple sugar production for use at home as well as for export, leading to the *Vermont Gazette's* exhortation that "..attention to our sugar orchards is essentially necessary to secure the independence of our country."

We learn that our focus on the use of native plants is not a new one. Unlike many of his time who spent significant funds trying to recreate formal British gardens by importing yews, hollies, lilacs and tuberoses, Washington sought to develop a truly American garden. With his extensive network of friends throughout the states, he garnered trees from various regions, including South Carolina's *Magnolia grandiflora,* and balsam firs and eastern hemlocks from New York for his Mount Vernon gardens. More importantly, he was unique in his patriotic use of native plants, bringing red buds, pines and cockspur hawthorn from elsewhere on his vast estate for his many visitors to enjoy.

It also becomes clear that gardeners are gardeners, no matter what the century. Like many of us, Washington learned the hard way to avoid the temptation to plant too early in the season. Impatient to move forward with his garden design after years away during the Revolutionary War, he directs his slaves to dig up and transplant the native trees and shrubs in February, only to lose many of them to an ice storm in March. Of course, we don't have slaves, but this desire for spring and to get out and garden may sound familiar to some.

Given the many books that have been written about the founding fathers, it is interesting that a British author, trained in historical design, brings us this fresh perspective on how their interest in agriculture and landscape design intertwined with the creation of the new nation. If there is any disappointment with this book, it was that the color plates chosen by the author did little to help the reader envision the many shrubs, flowers and trees that are discussed. Several black and white plates are included to provide a general idea of the garden layout, but more could have been done to enhance the reader's experience.

We are fortunate to live near three of the four properties featured in the book. After reading *Founding Gardeners*, we will see and appreciate Mount Vernon, Monticello and Montpelier in a new light.

Jan Lane, Master Gardener Intern

Put Your Passion on Your Bumper

Let everyone know how you feel about the environment with one of these attractive Virginia license plates. These plates need your support before they can go into production.

Pollinator Plates

Pollinator Plates are new license plates in Virginia promoting pollinator conservation! These license plates are designed to get people talking about why pollinators are important and why we need to protect them. Help raise awareness and support pollinators— sign up for your plates today!

The group backing these plates are currently taking pre-sale orders and once they have collected 450 applications and plate fees, the plates will be on their way! For only $10 (the plate fee), you can BEE part of getting these plates passed.

The pollinators need you!

To order your Pollinator plates go to http://pollinatorplates.blogspot.com/p/about-me.html

Tree Lovers Plates

Virginia's tree lovers can pre-order a specialty license plate from the Department of Motor Vehicles. The Virginia Loves Trees plate is designed to raise awareness of the value of community trees and features a city skyline enhanced by trees.

Groups backing the proposed plate include Virginia Tech's urban forestry program, the Virginia Urban Forest Council — also known as Trees Virginia — and the Virginia Nursery and Landscape Association.

The DMV requires people to pre-purchase 450 plates by June 30 before it starts producing a specialty plate.

Virginia Tech said after the first 1,000 plates are sold, $15 of each $25 plate fee will go to its urban forestry program and Trees Virginia. To order your Tree Lover plates go to http://www.valovestrees.org/

Carol Ivory, Master Gardener Tree Steward

The *Trumpet Vine* is the quarterly electronic publication of the Loudoun County Master Gardeners. If you would like to be added to the distribution list, send a message to TV@loudouncountymastergardeners.org.