The mission of the Missouri Master Gardener Program is concise and easy to remember, “Helping Others Learn to Grow.”

A master gardener trainee is someone who is currently attending educational training or who has completed 30 hours of training and is working on fulfilling volunteer requirements before becoming a full-fledged master gardener. Once these two requirements are met, then a Master Gardener agrees to serve their community by passing on horticulture information about gardening through educational programs, hot-lines, clinics, demonstrations and/or workshops. This information comes from the University of Missouri Extension through unbiased research.

It is the partnership between the Master Gardeners and the University of Missouri Extension that provides Missouri home gardeners with a trusted source of gardening information. Started in 1983 with over 2000 active Master Gardeners volunteering throughout the state, this group has provided almost 70,000 hours of volunteer time throughout Missouri in 2013. The Master Gardeners are a valued part of the University of Missouri Extension.

The American Horticultural Society recognizes the following, “The Master Gardener program, typically offered through universities in the United States and Canada, provides intense home horticulture training to individuals who then volunteer in their communities giving lectures, creating gardens, conducting research, and many other projects….for some of the best, regionally-specific advice you can get on gardening.”

Master Gardeners are also well known for having projects such as helping to landscape local buildings, community gardens, working with children or elderly garden projects or maintaining the landscapes for local schools and churches.
In 1990, while living in West Chester, Pennsylvania, Craig LeHoullier received an unsolicited note and small packet of seeds in the mail from John Green of Sevierville, Tennessee. The note indicated that John wanted to share this unnamed purple tomato with Craig, that it was a purple tomato that the Cherokee Indians gave to his neighbors 100 years ago. An old Cherokee Indian heirloom, pre-1890 variety.

LeHoullier was so impressed with the tomatoes, color of a "bad leg bruise" that he named them Cherokee Purple and sent a few of his seed company friends some seeds.

The Cherokee Purple tomato has a unique dusty rose color. The flavor of the tomato is extremely sweet with a rich smoky taste. The Cherokee Purple has a refreshing acid, is watery, thick-skinned and earthy with a lingering flavor.

"If Craig hadn’t said, 'This tomato is really amazing,' I doubt we would have tried it," says Ira Wallace, who coordinates the variety selection for Southern Exposure Seed Exchange, a cooperative seed company that’s helped to promote and disseminate many heirloom varieties. "It was an ugly tomato, and before all these heirlooms came along, all we knew were red and yellow tomatoes."

When starting your Cherokee tomato seeds be sure you have a place where they can get enough light. Even a sunny, south-facing window is barely adequate. Consider using a grow light to supplement sunlight. Don’t start plants too early. Sow seeds indoors 6 to 8 weeks before transplanting outside. Plant them 1/8 inch deep in sterile seed starting mix in flats or cells. Seeds germinate best at 75°F to 90°F and grow best at about 70°F. Don’t rush to transplant Purple Cherokee. Cold soil and air temperatures can stress plants. Wait at least a week or two after the last frost. Nighttime temperatures should be consistently above 45°F. Use black plastic mulch to warm soil and/or row covers, hot caps or other protection to keep plants warm early in the season. Remove covers whenever temperatures exceed 85°F.

Harden off plants before transplanting by reducing water and fertilizer, not by exposing to cold temperatures, which can stress them and stunt growth. Transplants exposed to cold temperatures (60°F to 65°F day and 50°F to 60°F night) are more prone to catfacing.

Space Cherokee Tomato transplants:
- 12 - 24 inches apart for determinate varieties
- 14 - 20 inches apart for staked indeterminate varieties
- 24 - 36 inches apart for un-staked indeterminate varieties

Unlike most plants, tomatoes do better if planted deeper than they were grown in containers. Set them in the ground so that the soil level is just below the lowest leaves. Roots will form along the buried stem, establishing a stronger root system. To reduce root disease risk, don’t plant on soils that have recently grown tomatoes, potatoes, peppers or eggplant for at least two years.

A relatively high nitrogen content in the beginning (left to bleed off by harvest to encourage fruiting) is recommended and Cherokee’s thrive in soil with a pH of 6 to 6.5.

Mulch plants after the soil has warmed up to maintain soil moisture and suppress weeds. Cherokee tomatoes need a consistent supply of moisture. If it rains less than 1 inch per week, water to make up the difference.

Cherokee Purple is one of the most eye-pleasing and distinctive of tomatoes in both appearance and taste. They are as big or bigger than most beefsteak varieties.

I am so looking forward to growing this heirloom tomato next year. How about you?
November Gardening Calendar
By Donna Aufdenberg, MU Horticulture Specialist

Ornamentals
- Prevent frost cracking or sunscald by wrapping trunks with commercial tree wrap or painting the south and southwest facing sides of the trunk with white latex outdoor paint. Young, thin barked trees such as maples and many fruit trees are especially susceptible.
- Take a walk through your garden as the fall season winds down. Take time to reflect on the successes and failures of your gardens this year. Make notes in your gardening notebook for new things to try and things to fix next spring.
- After several killing frosts have occurred this fall, cut back dormant perennials to about 3 inches above ground.
- Check the moisture level in the soil around evergreens before harsh winter weather begins.

Vegetables
- Have garden soil tested for fertilizer needs every three to five years.
- Fall tilling, except in erosion-prone areas, helps improve soil structure and usually leads to soils warming up and drying faster in the spring, thus allowing crops to be planted earlier.
- Plant lettuce and hardy vegetables, such as beets, cabbage, and spinach, in cold frames for winter or early spring crops.
- If you use manure as a soil conditioner, apply it now and till it under. Manure can be a source of weed seed. Composting before application can reduce the number of viable seeds.

Fruits
- Break the crust on the surface of any sawdust mulch you have around blueberries, shrubs, and perennials to improve the absorption of water from fall rains.
- Keep mulches pulled back several inches from the base of fruit trees to prevent bark injury from hungry mice and other rodents.
- Fallen, spoiled or mummified fruit should be cleaned up from the garden and destroyed by burying.
- Mulch strawberries for winter with straw. This should be done after several nights near 20 degrees, but before the temperatures drop into the teens. Apply straw loosely, but thick enough to hide plants from view.

Indoor Plants
- Move plants closer to windows or to sunnier exposures, such as west and south facing windows if plants are dropping many leaves.

Lawns
- Late fall fertilizing can help keep the lawn green longer and boost early spring recovery. Apply 1 pound actual nitrogen per 1000 square feet of lawn.

Taste of the Season: Honey-Roasted Pecans
1 1/2 Cup raw pecans
1 1/2 Tablespoons honey
1/8 teaspoon salt, plus more to finish
Preheat oven to 250° Fahrenheit. Spread nuts out on a parchment-lined baking sheet. Bake in the oven for 5-7 minutes. Transfer warm nuts to a medium bowl. Quickly drizzle the honey and salt over nuts. Stir until they are well coated.

Return coated nuts back to the baking sheet and bake for 90 minutes, rotating once. Remove nuts from the oven and sprinkle with a pinch of salt. Separate any clumps before honey hardens. Allow to cool completely and serve.
This is the time of year that everyone in Ste. Genevieve goes pecan crazy. It is easy to do here because if you take a drive around the town, you will notice huge pecan trees in about every yard. In the river bottom fields, if you see a lone tree, it is a pecan. Picking up pecans is serious business in Ste. Genevieve County and I always joke that pecans are traded like currency here. The majority of the large, old pecan trees here are native varieties. Native nuts generally have smaller nuts with thicker shells, but the best flavor!

Pecan trees can get very large, often with a height of over 70 feet and a spread of 80 feet. They are a member of the hickory family with large, pinnately compound leaves with each leaf bearing 7 to 13 leaflets. Nuts are borne on branch terminals in clusters of two to five. They are surrounded by a fleshy, green husk that splits open to reveal the nuts in October to November. As the husks dry and the wind blows, nuts drop to the ground, ready to be picked up by humans, squirrels, crows, and other critters. Pecan nut size can vary greatly with wide range of sizes on native nuts to more standard sizes and thin shells on grafted varieties.

Pecans are great multipurpose trees as we see in Ste. Genevieve. They are long-lived and sturdy shade trees in the lawn with bright yellow fall color. They provide food and cover for wildlife, of course that depends on your point of view, if you want the pecans or if you want the wildlife! A successful pecan planting requires good soils, adequate water, and good cultivar selection.

Pecans are native to Missouri and are generally found growing in river bottoms. They will survive being flooded for periods of time but do not like drought. A shortage of water can cause poor nut quality. Early season drought can cause small nuts, while drought later in the season can lead to poor kernel filling. Severe drought like last year can cause nut abortion, premature defoliation, and decrease in the next year’s nut crop.

Cultivar selection is important to insure a good crop. You want to pick varieties that do well in this area. Pecans utilize the entire growing season to develop and mature their nut crop. The cultivar must bloom without a freeze causing the blossoms to drop. Pecans have separate male and female flowers. The male flower is called a catkin, they hang down and are fuzzy with pollen. The female flowers are in the branch terminals and you can see the start of the pecan. They are pollinated by the wind. Pecans also need to have shuck split in the fall before freezing temperatures. If the pecans still have the husks tight when it freezes, the husk will never open.

When pecans start dropping from the tree, it is time to pick them up. You can also aid their dropping by shaking branches or the entire tree. They can then be stored in a cool, dry place before cracking. After they are cracked and picked out, they need to be stored in air tight containers in the freezer. Pecans are high in unsaturated fats that can go rancid if stored at room temperature. They will remain fresh in the freezer for two years or more.
When most people see a snake in their yard or garden, it is usually a garter snake. They are so commonly found around homes, that they are nicknamed Garden snakes because of their repeated appearances there. Several people do not like or trust snakes at all, some folks would probably say they absolutely hate snakes! I however, like our legless garden inhabitants and would like to share why having a garter snake in your garden isn’t really a bad thing.

Garter snakes love moisture. Their natural habitat is areas near water, such as creeks, ponds, rivers, and other wetlands. So why would they like to be by your house? Because chances are, you’ve watered your lawn or flowerbed to keep your plants healthy during dry periods. Even if you haven’t watered your plants, dense plantings create shade on the ground, retaining soil moisture.

When you scare up a garter snake on a hot summer day, they will quickly slither to cover where they are no longer visible. Thick or dense bushes create ideal hiding places because if you can’t see them, sunlight is probably not reaching the soil surface either. Cool soils keep microorganisms happy as they break down organic matter into usable plant nutrients.

Gardens and landscaping around homes provides the garter snake with the shade and moisture retention that its favorite food also needs: Toads. Unless you’ve got a pond on your property, you probably don’t have lots of tadpoles, toads, and frogs in your yard from early spring to late fall. The garter snake may eat toads when they are abundant during parts of early summer, but to get them through the rest of the year, the garter snake also eats earthworms. A healthy garden is sure to have an abundant supply of earthworms to

Continued on page 6.

Time To Turn In Master Gardener Hours!
By Donna Aufdenberg, MU Horticulture Specialist

It is time to turn in your Master Gardener Volunteer Hours! If you have already completed your volunteer hours for the year, please get them turned in online or send to your local Master Gardener Coordinator. Addresses for coordinators are located on the back of this newsletter.

- If you need a new copy of hour record sheet, you can find it at http://mg.missouri.edu/mgforms.htm or contact your local coordinator and they will send you one.
- We are really encouraging the online reporting system this year. You can find this at http://report.missourimastergardener.com/
- Every year we update the Master Gardener Directory. If you have not turned in Master Gardener Hours for 3 years, you will be moved to the inactive list.
- If you have not turned in hours in previous years however, you still want to be involved, please let us know!
- If any of your information has changed (address, phone, or email), please let us know.

These hours are important to us! They help ensure the continuance of the program.

If you have problems reporting hours, let one of us know...we are here to help!
One of my favorite landscape plants is Russian Sage, or Perovskia atriplicifolia. Pictured is a grouping of 7 of the ‘Lacey Blue’ cultivar. These are exhibiting a compact, low-growing, slightly twisted growth habit in their first season, as may not be apparent from the photograph. They can potentially reach a mature height of 18-24” with a spread of 18 inches. Other cultivars can reach up to four feet in height and often exhibit a more upright, spiky, narrow habit. The amount of sunlight they receive (and the cultivar) strongly influence their height and form. Pinching back in Spring and ensuring full sun should prevent their stems from flopping over.

The small, tubular flower spires of Russian Sage are pale blue to lavender-blue, making this cultivar a nice alternative to lavender plants, which, in my experience, are more difficult to grow in mulched beds. Flowering can be expected in mid to late summer and can last into fall. These subtle beauties are herbaceous perennials and are considered sub-shrubs with silver, squared, woody older stems, herbaceous new growth and grayish to green foliage consisting of oblong, deeply cut fragrant leaves.

Russian Sage can be used in border plantings with other sun-lovers and are heat- and drought-tolerant once established and hardy in all Missouri zones. Clumped together, the upright-growing cultivars make a stunning specimen plant in the center of a small stand-alone bed.

I have found Russian Sage very easy to grow in my clay soil this season. They add a touch of elegance to an informal garden design and have been very forgiving when I skip a few days of watering. They are members of the mint family, and also like lavender, they attract butterflies and bees. I have yet to find anything not to like about this plant.

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The Garter Snake (cont’d from page 5)
by Mary Crowell, MO Farm Bill Wildlife Biologist

keep your neighborhood garden snake well fed and keep processing organic matter into vital soil nutrients your plants need. Another reason why people so often see garter snakes over other types of snakes is that they are active longer during the year. They are the first snake to come out of hibernation in March and stay active though November. You can also see them out and about on warm winter days. As winter approaches and seeds fall, mice start gathering food and looking for a place to live during the winter months. Garter snakes less commonly eat mice, but as the weather turns colder, less frogs and toads are out, leaving mice higher on their menu. If you’ve got a garter snake patrolling your property, he can help thwart the furry invaders.

Next time you see a garter snake around the yard, remember he is a friend, not a foe. Having a resident Garter Snake means your soils are moist, you’ve got a healthy population of earthworms, and your house is being guarded from unwanted mousy intruders.
### November 2013

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Contact your local Extension Center if you have questions about any event on the calendar.

- Parkland MGs 1st Monday at 6:30pm, Memorial United Methodist, Fmgtn, MO
- Poplar Bluff MGs 1st Tuesday at 6:00pm, Butler County Ext Center
- Delta Area MGs 2nd Thursday at 7:00pm, Medical Arts Building, Sikeston, MO
- Cape Girardeau County MGs 3rd Thursday at 7:00pm, Cape County Ext. Center
- Perry County MGs 4th Monday at 6:30pm, Perry County Ext. Center

If you have a horticultural related event for the calendar call 573-686-8064 or email it to Denklers@missouri.edu.
The Garden Spade is published monthly by University of Missouri Extension staff for individuals and families living in Southeast and East Central Missouri. This newsletter is provided by your local extension council.

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Editor’s Corner

We welcome and encourage Master Gardener groups and individuals to submit items to the newsletter. We encourage the submission of any news such as upcoming volunteer opportunities, community events related to gardening, warm wishes or congratulations to fellow gardeners. We also encourage Master Gardeners to share experiences and write articles on timely topics.

All entries into the group news sections must be received by 4:30 on the 15th of each month for the following months news.

Email News to: kammlerk@missouri.edu, denklers@missouri.edu, or aufdenbergd@missouri.edu

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November 2013 Garden Spade