What is it?  
Source: http://www.clemson.edu/extension/horticulture/landscape_ornamentals/id_guide/ See the Plant of the Month for answer

LEAF ARRANGEMENT: alternate
LEAF SHAPE: elliptical
LEAF MARGINS: entire
OTHER ID FEATURES: rounded leaf tips, licorice odor to crushed leaves
Backyard Wildlife

Many of you have an interest in attracting wildlife to your property. Have you considered being part of National Wildlife Federation’s Certified Wildlife Habitat™ program? In a recent Tennessee Conservationist (January-February 2013) article author Louise Zepp, discusses the certification program. Information on the program can be found at http://www.nwf.org/How-to-Help/Garden-for-Wildlife.aspx.

According to Zepp Tennessee has 2,712 NWF Certified Habitats, no certified communities, and 72 NWF Certified Schoolyard Habitats. While these numbers may lag behind other states, interest is growing in this program. I have not read all the details on the National Wildlife Federation web site, but this may be a program that interest you.

From the National Wildlife Federation website are links to sites that may interest you including: American Beauties at http://www.abnativeplants.com/index.cfm/fuseaction/home.home/index.htm a site that discusses native plants and includes helps in deciding which plants to choose. The site also has a Garden Tips section found at http://www.nwf.org/How-to-Help/Garden-for-Wildlife/Gardening-Tips.aspx.

New Publications

“Foliar Diseases of Tomato” SP 277-W is a newly revised factsheet now available on the Extension publications site at https://utextension.tennessee.edu/publications/Documents/SP277-W.pdf. This is a Web-only document; no hard copies are available. This publication is also written for commercial producers however there are some excellent photos and descriptions of diseases.

UT AgResearch Field Days

The complete schedule is as follows:

Field Days
- Organic Crops Field Tour – April 24, 9 a.m., Organic Crops Unit, Knoxville
- Fruits of the Backyard – June 18, 8:30 a.m., Spring Hill
- Summer Celebration – July 11, 10 a.m., Jackson
- Steak and Potatoes – Aug. 6, 8 a.m., Crossville
- Turfgrass and Ornamental – Sept. 12, 8 a.m., Plant Sciences Unit, Knoxville
- Pumpkin Field Day – Sept. 26, 11 a.m., Jackson
- Woods and Wildlife – Oct. 3, 8 a.m., Cumberland Forest, Oliver Springs
- Northeast Tennessee Beef Expo – Oct. 10, 7:30 a.m., Greeneville

Special Events
- Blooms Days – May 11-12, 9 a.m., UT Gardens, Knoxville
- Summer Color – June 25, 8 a.m., UT Gardens, Knoxville
- Fall Gardeners’ Festival – Aug. 27, 9 a.m., Crossville
http://agriculture.tennessee.edu
2012 Precipitation in Review - Article by John Formby

2012 was a wild year for rainfall in and around the Sequatchie Valley region. Nineteen volunteer members of the Community Collaborative Rain, Hail and Snow Network (CoCoRaHS) in Bledsoe and Sequatchie Counties filed more than 5,800 daily reports of observed rainfall, melted snow and other forms of precipitation that provides detailed information on the amounts and variation in precipitation across the region and throughout the year.

The region suffered two periods of drought preceded and followed by dramatic month-to-month swings in rainfall. Drought is generally defined as an extended period of dryness that causes damage to plants and crops or prevents their successful growth. Local CoCoRaHS data provide information that can be used to identify and measure the beginning, ending and severity of droughts across the region and over time.

CoCoRaHS is a non-profit, community-based network of volunteers of all ages and backgrounds working together to measure and map precipitation (rain, hail and snow) on a daily basis. There are thousands of volunteers in all fifty states and Canada. All are trained and use identical low-cost, but high quality, rain gauges and report daily observations on the CoCoRaHS interactive Web-site. The aim is to provide the highest quality data for use in natural resource, education and research applications.

Tennessee has been a member of CoCoRaHS since April 2007 and more than 1000 volunteers are registered observers. On a typical day 300 to 400 precipitation observations are reported online from all across the state. Fifteen to eighteen of those reports are usually from Bledsoe and Sequatchie County observers. CoCoRaHS in Tennessee is sponsored by the University Of Tennessee Institute Of Agriculture and the U.S.D.A. Farm Service Agency. It is also supported by the National Weather Service and NOAA.

Nine local CoCoRaHS volunteers filed complete daily reports for all of 2012 that reliably measure precipitation at geographically dispersed locations throughout the Sequatchie Valley region. Other local volunteers filed complete daily reports in some but not all months during the year. The CoCoRaHS stations with complete records show that on average 2012 was only slightly below normal based upon NOAA’s Global Climate Normal (30 year average) for Pikeville, which is 54.54 inches. For 2012 as a whole the nine local stations recorded total precipitation that averaged 53.19 inches across the two county region. This is 1.35 inches and 2.5 percent below normal.

The almost normal average precipitation in 2012 does not begin to adequately describe the rain and snow patterns experienced across the region during the year. April 2012 was the driest April ever! Sequatchie County CoCoRaHS stations all reported less than 1 inch of rain in April and the average across all stations was only 0.72 inches. Bledsoe County was almost as bad with an April average of 1.02 inches. The region as a whole was 79 percent below normal in April. The drought continued and became more severe over the next two months. Taken together, the prime gardening months of April, May and June were 51 percent below normal in and around the Sequatchie Valley region.

The first drought of 2012 was broken in July with widespread and almost torrential rains that resulted in all CoCoRaHS stations in the region reporting at least 7.5 inches, which is 75 percent above normal. The July rains averaged just over nine inches and several locations across the region reported more than 11 inches. The July normal is 4.24 inches.

The July rains wiped out much, but not all, of the 2012 precipitation deficits caused by the three month long drought. The last five months of the year were characterized by what can be described as “average precipitation with volatile month-to-month changes”. A second drought, less severe than the first, began in mid October and ended in early December. November was especially dry with all CoCoRaHS stations reporting rainfall at least 50 percent below normal. Thankfully, the rains returned in December and the year ended on a positive note.

Sequatchie Valley Master Gardeners actively support CoCoRaHS and many are also local volunteers. However, you don’t have to be a Master Gardener to be...
To receive monthly summary reports on local precipitation or for more information about CoCoRaHS in the Sequatchie Valley region send an email request to SVMGTN@gmail.com.

Winter tip: choose your deicer with the environment in mind

As winter sets in across Tennessee, so too does the need to keep pedestrian paths clear of snow and ice. Deicers and traction agents are used to achieve safe passage, but many commercially available products may be harmful to the environment and human health, especially if used incorrectly. Studies have documented that up to 55 percent of deicing compounds are carried into waterways by stormwater runoff, while the remaining 45 percent infiltrates into the ground therefore affecting soils and potentially the groundwater.

Sodium chloride, or rock salt, is the most commonly used deicer because of its cost effectiveness, says Dr. Andrea Ludwig, an assistant professor of biosystems engineering and soil science with the University of Tennessee Institute of Agriculture and the UT Stormwater Management Assistance Research and Training (SMART) Center. However, Ludwig cautions that rock salt is not the best choice for an environmentally sound deicer. “Rock salt is highly corrosive and can lead to environmental degradation when applied in large quantities. In soils, sodium chloride inhibits soil microbial activity, which affects soil structure.” Soil microbes and their associated products act like glue to hold together soil particles. Without this glue, soil is more erodible and likely to end up in streams and wetlands. Ludwig says other documented adverse environmental impacts of rock salt include loss of streamside vegetation, changes in aquatic community composition from sensitive species to tolerant species, and behavior changes in mammals and birds.

“Sodium chloride can also infiltrate into the groundwater and cause taste and health concerns related to drinking water. In serious cases, high sodium intake from drinking water may be linked to hypertension,” she says.

Other common deicers are calcium chloride, potassium chloride, and magnesium chloride. Ludwig says these compounds are more effective per unit mass, and therefore require smaller applications. “Because of this, these are relatively more environmentally friendly than rock salt, but they are still corrosive,” she says. “If you must use a deicer, make sure it is low in phosphorus content. Use pellets instead of small flakes to ensure slow dissolution.”

So what are the better choices for deicing sidewalks and pathways? Environmentally friendly deicers are biodegradable, Ludwig says. She recommends calcium magnesium acetate (CMA), potassium acetate, and other corn-based liquid concentrates, which are non-corrosive and biodegradable.

Of course, the most environmentally friendly and best physical health choice is pure elbow grease. Shovel and scoop as much snow and ice as possible before turning to chemical agents.

Sand, kitty litter, and ash are commonly used as traction agents to prevent slipping on icy areas – usually paved surfaces. As the weather cycle passes and icy conditions recede, these agents have the potential to be washed into nearby streams by stormwater and become a pollutant to the aquatic environment. Cracked corn is an environmentally friendly alternative and has the potential to be eaten by wildlife before it enters waterways.

Ludwig reminds homeowners that prolonged periods of freezing conditions can wreak havoc on your rain barrel or cistern plumbing that is exposed to the elements. “If you have an aboveground rain barrel or cistern collecting rooftop runoff from your home or other structures, then you need to watch the weather and consider winterizing your system,” she recommends. “Disconnect any plastic or PVC pipes and valves that may be cracked by freezing pockets of water. Also, store yard wastes or compost pits away from storm sewers to keep harmful organic pollutants out of streams.”

For more information on how to protect our water resources with an environmentally friendly yard year round visit the Tennessee Yards and Neighborhoods website (https://ag.tennessee.edu/tnyards).
February

Trees And Shrubs

- Continue to prune all dormant, deciduous, and evergreen trees this month as needed. Both light and heavy pruning are OK but do not prune trees when sap is frozen. Also, never remove the central shoot or leader of a shade tree; you will ruin its natural shape.
- Heavy structural pruning of evergreen shrubs like boxwood or Burford Holly can be done in February.
- Prune broadleaf evergreens like hollies and narrow leaf evergreens like junipers to shape anytime this month. Always prune so the top is narrower than the bottom in order to keep evergreens from becoming top-heavy and unsightly.
- Wait to prune cold damaged stems until March or April when you will be able to determine the true extent of cold damage.

Fruits

- Finish pruning fruit trees as soon as possible this month. Use the Open Head or Basket method of pruning for peaches, plums, apricots, and nectarines. Use the Modified Leader method for pruning apples, pears and cherries. Flower buds are already set on last summer's growth. Be sure to leave plenty of this growth for flowers and fruits. After pruning, fertilize your trees.

Flowers

- Plant hardy biennials and perennial roots like Chrysanthemum, Purple Cone Flower and Shasta Daisy whenever the weather is mild. Plant in well-drained soil.
- Plant pansies in the garden all month when the weather is mild. Sweet Peas can still be planted in February. Plant them in trenches whenever the weather is mild. Continue to plant peonies and iris this month.
- Repot large geranium and Begonia which are to be set outside on terraces and decks when danger of frost is over. They need time to start growth and become beautiful before moving outside.

Vegetables

- Plant Irish potatoes and hardy lettuce like Black Seeded Simpson at the end of the month or in the month of March when the threat of severe cold has passed.
- Continue to plant garlic cloves and onion sets this month. Onion plants may also be planted this month.
- Start the following inside as soon as possible in early February: Broccoli, Cabbage, Cauliflower, Collard, Lettuce and Onion. These can be planted outside in March after the danger of hard freeze has passed.
- Lime gardens with dolomitic limestone if you didn't do so last month and soil test indicates the need. Apply at a rate of 50 pounds per 10000 square feet or as the soil test advises. Do not lime areas where you are going to grow Irish Potatoes.
- Fertilize as you plant with 15-15-15 or with a complete organic fertilizer like Garden Tone. Application is at a rate of approximately one pound per 10 feet of row.
- Winter weeds growing in vegetable areas can be eradicated with Roundup (wait at least 2 weeks after application before planting), however, if you cover the bed up with autumn leaves 3 inches deep, you can prevent the winter weeds from growing in the bed in the first place - and it is better for the soil too.
January Plant of the Month: Small anise tree

The small anise tree can be a ray of sunshine on a dreary winter day

Submitted by Dr. Sue Hamilton

For a bright and showy winter shrub, you can’t beat ‘Florida Sunshine.’ The cultivar is a member of the species *Illicium parviflorum*, also known as small anise tree or Ocala yellow star.

Introduced by distinguished plantsman, Tony Avent, of Plant Delights Nursery in Raleigh, N.C., Florida Sunshine features unique chartreuse leaves that distinguish this small-leaf anise from others. The foliage all but glows in shady areas, and in the fall the color changes to a bright yellow-gold while the leaf petioles and stems turn a contrasting scarlet-red, both providing for nothing less than a brilliant show in sometimes dull winter landscapes.

Another great feature of this plant is that its evergreen foliage is wonderfully licorice scented. Although they are not notably showy, white flowers accent the gold foliage in late spring. Florida Sunshine exhibits cold hardiness in Zones 6-9.

Florida Sunshine is a vigorous specimen, growing to be a dense shrub measuring 6 ft to 8 ft tall by 4 ft to 6 ft wide. Winter shade is recommended to reduce leaf burn, and wet soils result in the fastest growth habit, although the plant is tolerant of a wide range of soil conditions. Left alone by deer, this plant is a good choice for a woodland setting or for foundation plantings, mixed borders, evergreen screens or even decorative containers.

Florida Sunshine looks great year round, but it especially glows on a gray winter day. When mature, this small anise tree can be a bright garden focal point.  

Other items of note

• It is not too late to enter 2012 hours. If possible do so by the end of the month!
• Dues will be collected at the May meeting.

2013 Class Schedule

<table>
<thead>
<tr>
<th>Topic</th>
<th>Speaker</th>
<th>Date</th>
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<tbody>
<tr>
<td>Into/Insects</td>
<td>Sheldon Barker/ Grant Palmer - Roane County Agent</td>
<td>Jan 17</td>
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<tr>
<td>Basic Botany</td>
<td>Tom Stebbins- Hamilton County Agent</td>
<td>Jan 24</td>
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<tr>
<td>Landscaping and Tree Care</td>
<td>Patrick Haller - Haller Landscaping and Lawn Care</td>
<td>Jan 31</td>
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<td>Dr. Douglas Airhart – TTU</td>
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<td>Soils</td>
<td>Sheldon Barker</td>
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<td>Fruits</td>
<td>Dr. David Lockwood</td>
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<td>Vegetables</td>
<td>John Formby – SVMGA</td>
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<tr>
<td>Diseases</td>
<td>Tom Stebbins - Hamilton County Agent</td>
<td>Feb 28</td>
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<td>Herbs</td>
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<td>Ornamentals</td>
<td>Ruth Baumgardner</td>
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<td>Turf</td>
<td>Tom Samples</td>
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<td>Weeds</td>
<td>J.C. Rains</td>
<td>Mar 28</td>
</tr>
<tr>
<td>Organics</td>
<td>Donna Cunningham</td>
<td>April 4</td>
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Mushroom Program a Success

The SVMGs hosted a Shiitake Mushroom Class February 16. Despite the blustery weather and the flurries a total of 68 people attended. A big pat on the back to all who helped put this program together.

Don’t forget to record your hours for this program. If you helped in preparation or taught that count as Teaching Volunteer Hours (ACT). If you attended the program you can log the Continuing Education Units (CEUs)

If I figured correctly 6 speakers times 68 people equals 408 contacts (yes each speaker can count their own contacts at the program)

More photos are on page *
Dates to Remember

SVMG Meetings & Programs
- March 16, ‘13 - CoCoRaHS Workshop – Dunlap, Citizens Tri County Bank
- Watch your email for more details
- May 4, ‘13 – Quarterly Meeting & Rain Barrel/ Raised Beds Workshop - Bledsoe Co. Fair Grounds (tentative) Pikeville
- Aug. 3, ‘13 – Quarterly Meeting, Dunlap
- Nov. 2, ‘13 – Quarterly Meeting, Pikeville

Other Dates
- May 11 Blooms Day
- UT Gardens Knoxville 9:00 AM Eastern
- August 6, Steak and Potatoes Field Day Crossville

New or Revised Publications
- SP 341-L Plant Diseases: Nematode Control in the Home Garden
  [https://utextension.tennessee.edu/publications/Documents/SP341-L.pdf]
- SP 370-C Plant Diseases: Tomato Wilt Problems
  [https://utextension.tennessee.edu/publications/Documents/SP370-C.pdf].
- PB 1061 Soil Testing
  [https://utextension.tennessee.edu/publications/Documents/PB1061.pdf].

Other Publications that may be helpful
- Organic Crop Series – these are for production Agriculture operations lots however there is lots of good information found in them.
  - W235-C - Building Healthy Soils
  - W235-D - Increasing Farm Biodiversity
  - W235-E - Crop Rotations
  - W235-F - Trap Crops, Intercropping and Companion Planting
  - W235-G - Cover Crops and Green Manures

All these and many more informative publications can be found at:
[https://utextension.tennessee.edu/publications/Pages/default.aspx]

Botany/ Garden Quiz
Circle the correct answers. The Answers will be in next month's newsletter
1. Light green is the scientific name of which common garden plant
   A. cabbage
   B. broccoli and cauliflower
   C. kale
   D. Brussels sprouts
2. A Tomato is a
   A. Berry
   B. Drupe
   C. Vegetable
3. An almond is a
   A. Nut
   B. Berry
   C. Drupe
March

March is a time of renewal in the garden. As the days warm and lengthen, herbs and bulbs will come to life and tender new growth will emerge from winter’s soggy soil. Experts with the University of Tennessee Institute of Agriculture recommend that gardeners perform the following chores to ensure a beautiful and bountiful summer.

Trees and shrubs

March often brings good planting weather. Look for a day when the soil is moist but not wet, and temperatures are above freezing. Remember to make your planting hole as deep as the root ball and twice as wide. Refill the hole with the same soil you took out, but loosened and with the rocks and debris removed. Press the soil firmly around the root ball so that there is good root-to-soil contact, making sure the tree is not deeper than it was growing before you planted it. Fertilizer is not usually necessary for the first year for well-grown nursery stock, but you may want to add a small handful of superphosphate or bone meal to supply phosphorus to the growing roots. Water thoroughly after planting to settle the soil around the roots. Apply a two- to three-inch layer of organic mulch and you’re finished!

Fruit trees

Finish pruning fruit trees before new growth begins. Fruit trees may require special pruning techniques and timing to produce good crops, so see your county UT Extension agent for information. Horticultural oil sprays may still be applied to control scale insects and overwintering insect eggs on trunks, stems and twigs. Spray on a windless day when temperatures are above 40 degrees Fahrenheit to thoroughly coat the tree’s leafless branches and trunk down to the soil line.

Look for signs of Black Knot Disease, a serious fungal disease of cherries and plums. Black Knot Disease forms hard, brittle, coal-black knots on the limbs, eventually leading to decline and even death of the tree. Even very small branches may be affected. Prune out the knots from infected branches and burn the trimmings, or send them in a plastic bag to the dump. Look for the disease on your ornamental cherries and Japanese Apricot (Prunus mume) as well.

Asparagus beds

Plant asparagus and feed existing asparagus beds in early March before the spears begin to grow. Just before the spears begin to emerge from the ground, broadcast from 2 to 5 pounds of a complete fertilizer such as 5-10-10 over each 100 square feet of the bed. Repeat this at the end of the cutting season. You can use 10-10-10, but cut the application rate in half.

New asparagus beds can be established this time of year from dormant asparagus plants. Plant your dormant asparagus plants after the danger of a hard frost is over, but before the plants begin to grow. A well-prepared asparagus bed can be productive for 15 years or more. Purchase only fully dormant plants (called crowns) that are certified disease free. Try the new, all-male hybrids like Jersey Giant or Jersey Gem, and plan for five of these high-yielding hybrids plants to feed each asparagus-eater in your household. You must withhold harvesting until the second or third year after planting so that your plants will develop a strong, vigorous root system.

Lawn care

If you grow cool season lawn grasses like fescues, bluegrass or perennial ryegrass, March is a good time to aerate to reduce soil compaction. March is also a good time to de-thatch those lawns with a thatch layer more than one-inch deep. Thatch is seldom a problem on cool season grasses, but if a deep thatch layer develops, the health of the grass can be affected.

This is the time of year to apply pre-emergent herbicides to lawns to control annual weeds. The herbicide must be applied prior to weed germination. Read and follow label directions carefully. Apply herbicides to control crabgrass before Forsythia blossoms fade (crabgrass seeds germinate when soil temperatures are regularly greater than 50 degrees Fahrenheit, or about the time Forsythia bushes bloom.) Do not apply pre-emergent herbicide if you plan to overseed your lawn this spring.
UT Gardens February 2013 Plant of the Month: Hellebore
Submitted by Derrick Stowell, UT Gardens educator

Don’t let this plant’s name intimidate you. Hellebore is often called by several other less aggressive common names like Lenten Rose (*Helleborous orientalis*) and Christmas Rose (*Helleborous niger*). Despite having ‘rose’ in their name, they are not related to roses at all. Recent trends in hybridizing hellebores have brought gardeners more than 18 different varieties and a new Latin name, *Helleborous hybridous*.

Hellebores shine in the colder months. They are evergreen flowering plants that bloom when most plants are dormant and are great additions to any shade garden. You can find hellebores in most garden centers and they are growing in the UT Gardens, Knoxville, around the gazebo shade garden. In Jackson, they are prominent as well. The course-textured leaves provide interest throughout the year; however, their gift is their early blooming habit. Christmas Roses bloom earliest in this genus, and like the name alludes to, it often blooms around Christmas time.

Legend has it that a shepherd was on his way to Bethlehem to visit the newborn Christ child but did not have a gift to bring. On his way to Bethlehem the shepherd began to cry and tears fell on the ground. The Christmas Rose began to spring up where the tears fell and the shepherd was able to bring the flowers as a gift.

Hellebores originated in Eastern Europe and Asia and were traditionally used for treating ailments such as paralysis, gout, and mental health issues in early European medicine. However, many varieties are toxic and some historians attribute Alexander the Great’s death to a hellebore overdose.

The Lenten Rose gets its common name from the Christian calendar because they bloom during the time of Lent. The flowers appear in February and March and are signs of the approaching spring.

Hellebore flowers are long lasting, about three months from the start of blooming. Colors of the flowers range from white, light pink to deep purple. With the increasing of hybridization, you can find a variety of flowers including single blooms, double blooms and even bi-color blooms.

Hellebores are drought tolerant once they are established. A perennial that rarely needs dividing, hellebores are ideal for gardeners who like plants that require minimal fuss. They are also deer and rabbit resistant. One of the easiest ways to get more of these plants is to collect any seedlings that begin growing around mature plants. You can dig up these seedlings and plant them in other locations that have partial or full shade. It will take several years for the seedlings to flower. If you are keen to a particular color of flowers, you may prefer to purchase hellebores at a nursery when they are in bloom. This will guarantee you get the color of blooms you desire.

The blooms on hellebores often nod or face downward. Plant them on a hillside, in a raised bed or in a container to give you a better flower viewing angle. To add more interest, you can plant hellebores among other early spring-blooming plants like snowdrops and crocus. They also go well planted next to inpatients and ferns.

Hellebores tend to grow in clumps about 2 feet wide and 2 feet tall. When the foliage gets tattered and rough-looking in late winter you can cut them back. If you do this prior to blooming, it also will give you a better display of blooms. This easy-to-grow plant prefers a rich, well-drained soil. It should be planted in a partial shade to full shade location. Given all the positives of this plant, it is no wonder this plant was selected as the Perennial Plant Association’s 2005 perennial plant of the year.
The Invasion of the Earthworm

Yes, not all earthworms are native. According to scientist earthworms became extinct on much of the North American continent after the last ice age. So how did they get here? Apparently, earthworms arrived soon after the European colonist in the root-balls of their plants or in the ballast of ships (Mann). So why would this seeming innocent creature that is heralded by gardeners and fishermen a problem? Well according to an article in CompassLive an online news site for the US Forest Service Southern Region, they can impact native plants and animals in the forests they invade.

“Invasive earthworms are a global problem and can cause considerable changes to ecosystems,” says Mac Callaham, research ecologist with the U.S. Forest Service Southern Research Station (SRS) and an internationally recognized expert on invasive earthworms.

Scientist began to notice over 100 years ago that some earthworms were becoming invasive. The problem can arise when earthworms consume the duff on the forest floor that is crucial habitat for some amphibians and other animals and plants. Callaham and his colleagues are monitoring *Amynthas agrestis*, an exotic worm species that has colonized parts of the Great Smoky Mountains National Park. According to Callaham, the concern is that these earthworms “Can alter soil properties, organic matter and nutrient cycles, and well as plant and animal communities.” They are trying to determine the impact this has on the Great Smoky Mountains.

Invasive earthworms have spread to every continent (except Antarctica), oceanic islands, and nearly every type of ecosystem on the planet—even desert oases. “Worms may be slow on their own but they’re good hitchhikers,” says Callaham. Mud containing earthworm cocoons can get stuck to the fur and feet of animals. Tornadoes transport small pieces of earthworm-containing soil, and ocean currents carry worms to exotic locales. Humans, however, are an invasive worm’s main ride to new regions. People spread worms accidentally through activities such as gardening, composting and dumping fishing bait.

According to the US Forest Service (CompassLive), earthworms have invaded areas where the native earthworms were killed during the last Ice Age. There has been a dramatic negative consequence as worms gobble up duff that took decades to accumulate. The earthworms can consume so much leaf litter that only bare soil remains. As noted earlier this impacts the salamanders and other creatures that live in the layer of leaves and organic matter. Scientist have also noted a decrease in the abundance and diversity of bacteria, fungi, mites and other small soil-dwelling creatures that break down old plant matter. There is also an impact on the flora such as many endanger rare ferns and trilliums which germinate in the rich duff layer.

Another example of the impact comes from a recent study by Callaham and his colleagues of the interaction...
between invasive earthworms and millipedes. Millipedes and earthworms share the same layer of soil. “We wanted to see what happens if these millipedes and exotic worms compete for food.” Callaham and his team discovered that when Amynthas was present, millipedes had shorter lifespans. “It looks like millipedes and Amynthas do compete for the same foods,” says Callaham. “However, Amynthas cocoons were not found in soil that contained millipedes, so it looks as if millipedes have some biotic resistance to the exotic worms.

(CompassLive)

Sources:

SVMG Spring Field Trip
April 11, 2013
The 2013 SVMG Field Trip will be April 11 to The Ooltewah Nursery and Landscaping Co. Inc., at 5829 Main Street, Ooltewah, TN. Voted one of the best 100 businesses of its type in the United States and best in southeast USA. Plans for lunch, and additional details will be announced later by email.

What is it? See last page
Dates to Remember

SVMG Meetings & Programs

- March 16, ’13 - CoCoRaHS Workshop – Dunlap, Citizens Tri County Bank
- May 4, ‘13 – Quarterly Meeting & Rain Barrel/ Raised Beds Workshop - Bledsoe Co. Fair Grounds (tentative) Pikeville
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- Nov. 2, ’13 – Quarterly Meeting, Pikeville

Other Dates

- May 11 Blooms Day
  UT Gardens Knoxville 9:00 AM Eastern
- August 6, Steak and Potatoes Field Day
  Crossville

“Master Your Garden” Garden Expo – April 20-21

The Master Gardeners of Hamilton County present the 1st Annual “Master Your Garden” Garden Expo to be held at Camp Jordan Arena on Saturday, April 20-Sunday, April 21, 2013, 10:00am-6:00pm.

Program highlights:

- A series of free lectures throughout the 2-day expo by local gardening experts and Master Gardeners
- Numerous garden vendors
- Educational vendors
- Open to the Public
- $5 admission good for both days; Children under 10 years old admitted free

http://mghc.org/

2013 Flower and Garden Show

Cumberland County Master Gardeners
April 26 - 28, 2013, Cost is $3.00
Cumberland County (TN) Community Complex
Friday, April 26 12:00 - 6:00 PM
Saturday, April 27 9:00 AM - 6:00 PM
Sunday, April 28 11:00 AM - 3:00 PM
http://www.ccmga.org/FGS_2013Main.htm

More CEUs and Events

Native Plant Sale - April 5-7
Reflection Riding Spring Plant Sale
The annual spring plant sale at the Chattanooga Arboretum & Nature Center is one of the best local opportunities to purchase locally propagated native plants.
http://www.chattanooganaturecenter.org/www/docs/4
The Chattanooga Arboretum and Nature Center has several programs that would count for CEUs

Native Azaleas and Rhododendrons
April 1 (6:00 p.m. - 7:30 p.m.)
Chattanooga Arboretum & Nature Center
Open to the public

Fall Creek Falls 32nd Annual Spring Wildflower Pilgrimage
April 6-7,
Call 423-881-5708 for details
http://www.tn.gov/environment/parks/FallCreekFalls/activities/docs/2013.pdf
April

Spring Bulbs
As spring-flowering bulbs finish blooming, remove the spent flowers and any developing seed pods. This will permit the flower to spend its resources on making bigger, more plentiful flowers next year. Do not twist, braid or cut off the foliage. The leaves are gathering energy to store in the bulb for next year’s growth. If you must remove the foliage, wait until it is mostly brown or yellow, then cut it off cleanly at the ground. Bulbs will appreciate a sprinkling of a bulb-formulated fertilizer applied just as flowering is complete.

Summer Bulbs
Summer-flowering bulbs can be planted in mid to late April in East Tennessee and somewhat earlier in Middle and West Tennessee. Dahlia, gladiolus, tuberose, fancy-leaf caladium, elephant ear, amaryllis and canna will add color, fragrance and texture to the summer garden. Caladiums and elephant ears thrive in shade, while all the others need full sun (or at least half a day) to bloom well. Since these bulbs need to grow quickly to provide summer interest, prepare the planting bed by deeply tilling, incorporating organic matter and adding bulb fertilizer. Crush any clods, remove rocks and debris, and then rake the bed smooth and level. Crowning the bed (making the center slightly higher than the edges) improves drainage. Follow the directions on the bulb package to determine the correct planting depth and spacing.

Lawn
Cool-season grasses such as fescue, bluegrass and perennial ryegrass should receive their second fertilizer application of the year in April. Turf experts advise applying half to one pound of nitrogen in March and again in April. Cool-season grasses should not be fertilized until September.

Warm-season grasses such as Bermudagrass, zoysia and centipede should be fertilized just as the grass begins to green up. Apply one pound of nitrogen per 1000 square feet. Repeat this application in May and June. If you need help choosing or applying a lawn fertilizer, ask your county Extension agent or a master gardener.

You can do much to reduce weeds and improve the appearance of your lawn by mowing at the correct height for the type of grass you have and mow frequently with a sharp blade. Turfgrass experts recommend these mowing heights:
- Kentucky Bluegrass - 1.5 to 2.5 inches
- Turf-type Tall Fescue - 2 to 3 inches
- Fine Fescue - 1.5 to 2.5 inches
- Perennial Ryegrass - 1.5 to 2.5 inches
- Common Bermuda - 0.75 to 1.5 inches
- Hybrid Bermuda - 0.5 to 1.5 inches
- Zoysia - 0.75 to 1.5 inches
- Centipede - 1 to 2 inches

Shrubs
Azalea, forsythia, lilac, weigela, flowering quince, spring-flowering spireas and other shrubs that flower very early in the year can be pruned as soon as flowering is over. Do not delay because these shrubs make next year’s flower buds during the summer. No fertilizer may be needed, but these shrubs can be fertilized before or soon after flowering. Shrubs and trees are more often over-fertilized than under-fertilized. Putting out fertilizer when none is needed tends to make trees and shrubs more susceptible to insects, disease and drought.

If you have not pruned your butterfly bush (Buddleia davidii) by now, do it this month. The common butterfly bush should be cut down each year to within six or 12 inches off the ground just before or soon after new growth begins. Butterfly bushes are rapid growers and only produce flowers on new growth each spring. In addition, the annual cut-back will produce larger flowers and maintain manageable shrub size. A mature bush can be cut completely down and still grow back to its full height within three to four months and flower profusely.

Fruit Trees
While fruit trees are blooming, refrain from spraying insecticides to spare the bees pollinating the flowers. Within a week after the flower petals fall, resume your regular fruit-tree-spray program. Peach, plum and cherry trees may be sprayed shortly after petal fall to control fungal diseases like brown rot, rust and leaf spots. Ask an informed salesperson at your local garden center to recommend a fungicidal product or contact your local county Extension agent or a master gardener.
Vegetable Gardens

You can still plant cool-weather vegetables this month. Onions may be planted directly in the garden from sets, small onion bulbs, purchased from the garden center. Push the onion set into soft, fertile garden soil until the top is just below the soil surface. Onions do not compete effectively against weeds, so be prepared to hand weed your onions. Broccoli, cabbage and cauliflower plants should still be available. Sow seeds of lettuce, leafy greens, beets, carrots and radishes directly into well-prepared soil. Set out spinach plants or grow your own from seed.

Beans and corn can also be planted. If you grow the "supersweet" varieties of corn, wait until May 1 to sow the seed, or until the soil is warm where you live. Warm-weather-lovers like tomatoes and peppers should not be set out until the last expected frost date is well past and the soil is getting warm (May 1-15 in East Tennessee).

Some articles from the UT Garden’s Newsletter

- In the Eastern U.S., Spring Flowers Keep Pace With Warming Climate, Blooming Up to a Month Earlier. http://www.sciencedaily.com/releases/2013/01/130116195344.htm
- Two New Profusion Zinnias from All-America Selections http://all-americaselections.org/winners/details.cfm?WinID=505

Botany/ Garden Quiz Answers to February’s quiz

1. *Brassica oleracea* is the scientific name of which common garden plant

The answer is all four. Savoy and Chinese kale are also the same plant, each vegetable comes from a different cultivar.

A. cabbage
B. broccoli and cauliflower
C. kale
D. Brussels sprouts

2. A Tomato is a

A. Berry (A berry is a fruit with multiple seeds encased in a fleshy covering that develops from one ovary)
B. Drupe (Like a berry there is a seed covering often fleshy like peaches, but sometimes a harder covering there is only one seed in a drupe, brambles have an aggregate of drupes)
C. Vegetable (defines as a part of a plant other than a fruit that is eaten)

3. An almond is a

A. Nut (A nut is a fruit composed of a hard shell and a seed, where the hard-shelled fruit does not open to release the seed (indehiscent).)
B. Berry
C. Drupe (Note that almonds are in the genius *Prunus* thus like its cousins the cherries or peaches it is a drupe)
D. None of the above
UT Plant of the Month: Eucalyptus

Submitted by James Newburn, Assistant Director, UT Gardens, Knoxville

Our plant of the month for March is actually appealing all year long. That is because *Eucalyptus neglecta*, commonly called Omeo Gum, is an evergreen that maintains its foliage year round. It also has the familiar blue-green eucalyptus foliage with round- to oval-shaped leaves and the delightful, distinctive fragrance. These features make it ideal not only as a specimen tree but also as a source for cut branches that can be dried and used in arrangements.

Native mainly to Australia, many of the eucalyptus species do not tolerate frost, much less a freeze. *Eucalyptus neglecta*, however, is a hardier species and is listed as being winter hardy to zone 7. The specimen in the UT Gardens, Knoxville, which is in zone 6b, has been in the ground for six years and is thriving. It has reached a height of 16 feet in that short time and is considered a fast-growing plant. It does well in full sun but will tolerate partial shade.

To add to the attributes of this beautiful tree, let’s take a look at the species name *neglecta*. Any plant whose name implies it doesn’t need much care is a winner in my book. At the UT Gardens, Knoxville, we have certainly found this to be the case. Omeo Gum can tolerate many soil types including our heavy clay soil. Once established, it is considered a water-wise plant needing little supplemental watering in our region. It’s ideal to use in a Xeriscape landscape or in an area where irrigation or the hose does not reach.

Although the Omeo Gum does have a white flower, the blooms are so inconspicuous that you may not even notice them. However, the foliage is striking. Not only does it have the beautiful leaf color, but the leaves and stems of the new growth are tinged with shades of pink. Speaking of leaves, eucalyptus trees have juvenile and adult leaves. Until the plant reaches about 12 to 15 years old, the leaves are the round shape we associate with dried arrangements. As the tree further matures, new foliage will be narrow and strapped shaped and equally appealing. As a fast grower the tree can reach a height of 20 to 40 feet in 15 to 20 years and can ultimately reach a height of 60 feet. As it ages the bark becomes another outstanding feature, peeling off to give the tree a shagbark appearance.

Eucalyptus has long been valued for its aromatic properties and has been used medicinally as an antiseptic and for respiratory ailments. The leaves are popular for use in potpourris and flower arrangements and wreaths as well as for extraction of their essential oils. Even if you never use the cut foliage, the many fine characteristics of *Eucalyptus neglecta* warrant its use in the landscape and earn it the title “Plant of the Month” not for one month but for all twelve.
What is it? The spotted wing drosophila
Source: “What’s Happening” Volume 27, Issue 23 October 14, 2011 Entomology and Plant Pathology—EPP#60

The spotted wing drosophila (SWD), Drosophila suzukii, was discovered in the U. S. in central California in 2008. Native to SE Asia (most likely Korea or Japan) SWD is an invasive pest of fruit. In 2011, SWD was detected in Tennessee. Fruit crops susceptible to SWD include strawberry, blueberry, grape, cherry, apple, peach, plum, persimmon, raspberry, blackberry and other Rhubus.

The female has a prominent serrated ovipositor used to insert eggs into fruits, laying 1-3 eggs per site with approximately 350 eggs being laid over its 20-30 day adult lifespan. Eggs hatch in 12-72 hours. The three larval instars span 5-7 days while they pupate for 4-15 days. The ovipositor, and larva (a maggot) can cause damage to the fruit. The adult male has a black spot near the tip of each wing while the female lacks this spot.

Dr. Frank Hale, (Professor of Horticultural Crop Entomology, in Nashville) says that monitoring of adults in the orchard can be achieved by using a simple trap. The trap is composed of a plastic cup with lid hung in a tree or on a pole. Five or six 3/16 to 3/8 inch holes should be drilled or punched into the top half of the cup. Add a couple ounces of pure apple cider vinegar to the cup/trap. Put the traps out when fruit is present from spring to fall. The trap should be checked several times per week and any adult SWD should be collected for identification.

Photo credits:
- On page one 5444162 Hannah Burrack, North Carolina State University, Bugwood.org

YouTube Video from North Carolina Extension on how to make a trap
http://www.youtube.com/watch?v=_DX9K8e6ra8

Other sources of information:
http://bugguide.net/node/view/477660
http://www.ncipmc.org/alerts/drosophila.pdf
Two Successful Programs in March

On March 16, John Formby, SVMG President, conducted a session on CoCoRaHS (Community Collaborative Rain, Hail and Snow Network), for potential observers. Fourteen attended the session. Just to let you know the results, on March 1, 2013 Sequatchie County had 4 reports and on April 1, 2013 there were 14.

Vegetable Gardening Workshop

Forty-one people were present for the sixth annual Vegetable Gardening Workshop in Pikeville. Thanks to all those who helped prepare for the event, from putting together the information packets to preparing the food for the break, the list is just too long to include here.
Dates to Remember
SVMG Meetings & Programs
- May 4, ‘13 – Quarterly Meeting & Rain Barrel/Raised Beds Workshop - Bledsoe Co. Fair Grounds Pikeville Meeting 9:30, program 10:45-12:00
- Aug. 3, ‘13 – Quarterly Meeting, Dunlap
- Nov. 2, ‘13 – Quarterly Meeting, Pikeville

Other Dates
- April 20-21 “Master Your Garden” Garden Expo 10:00am-6:00pm. The Master Gardeners of Hamilton County Camp Jordan Arena http://mghc.org/
- April 26 - 28, 2013 2013 Flower and Garden Show Cumberland County Master Gardeners, Cost is $3.00 Cumberland County (TN) Community Complex Friday, April 26 12:00 - 6:00 PM Saturday, April 27 9:00 AM - 6:00 PM Sunday, April 28 11:00 AM - 3:00 PM http://www.ccmga.org/FGS2013Main.htm
- May 11 Blooms Day UT Gardens Knoxville 9:00 AM Eastern
- August 6, Steak and Potatoes Field Day Crossville

2013 Graduates and New Interns
Twenty new interns completed the Master Gardener Training Course April 11.

Front row: Lorna Earnest, Terry Earnest, Ruth Baxter, Beth Basham, Denise Potter.
Middle row: Kathie Britt, Wendy Smith, Ava Navin, Pamela Curry, Laura Jones, Dana Girard.
Back row: Steve Andres, Nancy Sears, Dean Carter, Sylvia Rifkin, Brian Carrier, Terri Gulick.
Not Pictured are: Susan Neaves, Jere Clough, Patricia Carter.

Rain Barrels and Raised Beds at May Meeting
From John Formby
Sequatchie Valley Master Gardeners will present a free workshop on how to construct rain barrels and elevated raised bed gardens employing used 55 gallon plastic barrels. The workshop will be at the Bledsoe County Fairgrounds in Pikeville on Saturday morning, May 4th. A rain barrel constructed as a demonstration will be awarded as a door prize. An elevated raised bed assembled on site will be auctioned to the highest bidder. While the workshop is free, advanced registration is required. So invite your friends and neighbors. The registration desk opens at 10:45 AM CST. The educational program begins at 11:00 AM and will last approximately one hour. The business meeting starts at 9:30.
All work and no play....

April included some hard work and some fun for SVMGs. April 10 was the work day at the Sequatchie County Fair preparing beds for planting around the building. Twenty Master Gardeners helped that day. Then on April 11, Twenty Master Gardeners, spouses, and one agent toured Ooltewah Nursery & Landscape Co., Inc. in Ooltewah, TN. learning about their operation and the many plants they had available for sale.

Some before photos of fair building...

The workday and after...
Ooltewah Nursery Tour
May

May is an important month for establishing your summer garden. For a lush display, gardening experts with the University of Tennessee Institute of Agriculture recommend performing these tasks:

- Water everything that is newly planted. Check every day for adequate moisture until the plants establish themselves in your garden.
- Deadhead or prune back spent flowers on your perennials. This simple process will keep those perennials blooming beautifully throughout the season.
- As soon as spring-blooming shrubs have finished flowering, prune and shape the plant if needed. Watch for bagworms on junipers, cedars, arborvitae, and white pine.
- Stake tall-growing perennials to prevent them from lodging (falling over).
- Use a light-weight soil mixture to grow annuals in containers. Keep the plants well watered, because these plants dry out fast! Also, be sure that your containers have adequate drainage holes.
- Mulch around newly planted trees and shrubs. This simple practice reduces weeds, controls fluctuations in soil temperature, retains moisture, prevents damage from lawn mowers and looks attractive.
- When planting summer annuals, consider pinching and removing the flowers to stimulate branching and the production of many more flowers.
- If you have had a grub problem or other insects in your lawn, apply a grub-controlling insecticide or one labeled for the insects you want to control.
- May is strawberry-picking month. Stock up on ice cream and whipped cream!
- Spray fruit trees and grapes early in the month with preventative fungicides.
- Keep tomatoes pruned and tied as they grow. Be careful not to over fertilize, or you will increase flower and fruit drop.
- Tie the leaves over small developing heads of cauliflower to keep it tender, mild flavored, and white.

A deadly disease stalks garden impatiens

Garden impatiens (*Impatiens walleriana*) is one of the most popular bedding plants grown in American gardens. It flowers and grows well in shade. However, downy mildew, a new disease of garden impatiens, has made it more difficult to grow and enjoy this colorful annual.

Downy mildew was first found on garden impatiens in U.S. landscapes in the Midwest and Northeast in 2011. To the chagrin of home gardeners and professional landscapers alike, by 2012 the disease was found on garden impatiens in all regions of Tennessee and every state east of the Mississippi River. This year the problem may be widespread.

Dr. Alan Windham, a University of Tennessee Extension plant pathologist, says that it pays to know the symptoms of downy mildew. Early symptoms include light green, curled leaves. Later, infected plants may drop all their leaves and stop flowering. Often, white fungal growth may be observed on the underside of leaves.

Windham recommends that flower consumers be cautious. “When buying impatiens this year, look for healthy plants free of the fungus. If you lost your impatiens to downy mildew last year, you might consider planting an alternative bedding plant such as begonia, coleus, New Guinea impatiens or SunPatiens,” he said.

For more information on downy mildew and other disease and insect problems in your garden follow the UT Extension Soil, Plant and Pest Center on Facebook at: [https://www.facebook.com/SoilPlantPestCenter](https://www.facebook.com/SoilPlantPestCenter)
April Plant of the Month: *Hydrangea quercifolia* ‘Little Honey’

Submitted by Jason Reeves, Horticulturist, UT Gardens, Jackson

Few plants brighten up a shady spot in the garden like oakleaf hydrangea ‘Little Honey’. In April, its new foliage emerges a luminescent yellow and ages to chartreuse by midsummer. Its small 5- to 6-inch white, cone-shaped panicles are at their best in mid-June and are nondescript compared to other oakleaf hydrangeas, but the foliage makes up for them. In the fall the foliage turns a brilliant orange red and persists through December. As with all oakleaf hydrangeas, the bark peels with age and is an attractive addition to the winter garden.

Little Honey is best grown in morning sun and afternoon shade for optimum leaf color. Given too much shade, the oak leaf-shaped foliage turns green by midsummer and its fall color is less intense. In cooler areas of Tennessee, it can take a good bit more sun, intensifying its fall color.

Little Honey is a standout in any partly shady area of the garden or on the east or north side of a house. A dark-colored house such as one made of red brick really makes it glow.

Most literature and labeling states that Little Honey will reach 4 feet tall and wide, but the 7-year-old plant at the University of Tennessee Gardens in Jackson is 6 feet tall and 5 feet wide. Several others of equal size are known to be growing in the region. Little Honey is among the many cultivated plants that can’t read their own label.

Native to the southeastern U.S., oakleaf hydrangeas prefer fertile, moist but well-drained soil and will not tolerate excessive moisture. Little Honey is no exception. It sometimes can be slower to establish than other oakleaf cultivars, so don’t give up if your first attempt doesn’t impress. The plant is hardy to USDA plant hardiness zone 5.

In April, the new foliage for the oakleaf hydrangea 'Little Honey' will emerge a luminescent yellow.

It ages to a lovely chartreuse by midsummer.

Photo of a specimen in the UT Gardens, Jackson, by J. Reeves.

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**Dues payable at May meeting**

The 2013 dues for the Sequatchie Valley Master Gardeners will be collected at the May meeting. Dues are $12.00.

**Recording Hours**

To date 623 hours has been recorded by Sequatchie Valley Master Gardeners

Please continue to record your hours!
What is it?

C-shaped grub of a common beetle
Photo from Frank Hale, UT Soil, Plant and Pest Lab


Answer on page 2

Need another hint check out this Ohio State fact sheet
Dates to Remember
SVMG Meetings & Programs
Aug. 3, ‘13 – Quarterly Meeting, Dunlap
Nov. 2, ‘13 – Quarterly Meeting, Pikeville

Other Dates
August 6, Steak and Potatoes Field Day, Crossville

What is it? Answer
May Beetle

According to Dr. Frank Hale these inch long C-shaped white grub can be found in gardens and lawns. Grubs hatch from eggs laid last summer so by the following May (now) it will be about 10 months old. Identification of beetle grubs are easy simply note the raster patter on the underside of the tip of the abdomen. For the May beetle there are two species thus two raster patterns are shown The one in the bottom left hand box corresponds with the white grub shown.

May Meeting Highlights
The May 2013 meeting featured a program on rain barrels and raised beds. Jerry, Norm and John did a great job presenting. Here are some pictures from the meeting.
June Gardening Tips

June is the month when your plants get established and really begin to grow.

Perennials, Annuals, & Bulbs

- Add a layer of mulch in garden beds to aid in weed control and moisture conservation. Mulch also helps create a clean, "finished" look to your garden beds.
- When planting containers, add water-absorbing polymers to the soil. They help the soil retain moisture. Also consider adding a slow-release 14-14-14 fertilizer to feed container plants throughout the season.
- Fertilize caladiums regularly. They are heavy feeders.
- Many perennials will keep flowering if cut back after their first bloom period. Such plants include garden phlox, heliopsis, veronica, echinacea, and platycodon.
- Stake tall-growing perennials such as goldenrod, boltonia, rudbeckia, tansy, helianthus, and Joe-pye weed to prevent them from lodging. A hard rain or high wind will bend them over when they are in bloom.
- Direct-seed sunflowers in your garden. Stagger their planting by every week or two through July, and you will have flowers until frost.
- Fall-flowering plants such as asters, mums, goldenrod, sedum, and Joe-pye weed can be cut back to make them shorter and stockier when they bloom. Cut their current growth three-quarters of the way back this month to have them looking great and in bloom this fall.
- Deadheading is a must in June. Many annuals and perennials need to be deadheaded to look good and bloom all season. These include geraniums, certain petunias, marigolds, salvias, and roses.
- Bearded iris should be divided soon after flowering. This gives the plants time to get established, increasing the chance they will flower next year.

Shrubs & Trees

- Keep newly planted trees and shrubs well watered during periods of drought.
- Azaleas, pieris, mountain laurel and other acid-loving species need to be fertilized one more time before August 15 using an acid-based soluble fertilizer containing iron.
- Spray monthly against sap-feeding lacebugs. Target the underside of leaves with an appropriate insecticide, insecticidal soap or a summer oil. Be sure to follow label directions.

Fruits & Veggies

- Traditional strawberries go semi-dormant after harvest. This is an ideal time to fertilize them with a complete fertilizer.
- Remove all root suckers at the base of fruit trees, particularly apple and pear, and all thick water sprouts shooting up straight on the branches. Also remove any diseased, dying or insect-riddled wood.
- Consider planting basil, rosemary, thyme, and even tomatoes in containers. Place the containers near the kitchen or patio door so you have quick and easy access to fresh veggies and herbs when cooking or grilling.
- Keep tomatoes pruned and staked or in cages.
- Prevent blossom-end rot of tomato by providing deep and regular watering with drip irrigation or soaker hoses. Mulching can also help conserve water. Fertilizing with calcium nitrate rather than agricultural grade 10-10-10 fertilizer also helps. Varieties resistant to blossom-end rot include 'Celebrity', 'Goliath' and 'Mountain Pride'.
- Harvest cucumbers, green beans and summer squash when they are ready. If you stop picking, production will halt.

Lawn Care

- June is an ideal month to seed, sod or plant plugs of Bermuda grass or other warm-season grasses like zoysia.
- Fertilize and dethatch warm-season lawns.
Place plants in your garden next to their friends to improve yields

You might not know it, but plants have friends, too. And some crops fare better when planted next to or near their friends.

Companion planting refers to the establishment of two or more crop species in close proximity so that some cultural benefit is derived. Most often used in home gardens, University of Tennessee Extension commercial vegetable specialist Dr. Annette Wszelaki says the cultural benefits of companion planting can include pest control and increased yield. Wszelaki also directs UT’s organic and sustainable crop production outreach program.

“Interactions between plants can take several forms; they may be either beneficial or detrimental,” said Wszelaki. “For example growing basil and tomatoes together may improve the flavor or yield of tomatoes, but using ryegrasses as a mulch can suppress weeds as well as the growth of neighboring small-seeded crops.” The latter is an example of “allelopathy,” which refers to the release of chemicals by one plant that inhibit the growth of another plant.

Wszelaki adds that plants may also interact with other organisms. “Some plants repel pests. When onions and leeks are grown alongside carrots, they can act as a repellant to the carrot fly. Other plants attract beneficial insects that help manage pest populations or enhance pollination,” she said. “Flowers and perennial plants may provide habitat and food sources to predatory beetles and attract bees and butterflies.”


You may also consult the national extension website: [http://www.extension.org/](http://www.extension.org/) Search the terms “companion plants” and “vegetable gardens.”

**UT Gardens expands to three sites**

*Discovery Gardens at Plateau AgResearch and Education Center added to the statewide system*

The University of Tennessee Gardens have officially expanded to include the Discovery Gardens located at UT’s Plateau AgResearch and Education Center. The announcement was made April 26 at the Cumberland County Master Gardeners’ Spring Flower and Garden Show at the county fairgrounds by UT Institute of Agriculture Chancellor Larry Arrington.

The UT Gardens are operated by the University of Tennessee Institute of Agriculture and can now be found in three locations: the UTIA campus in Knoxville, the West Tennessee AgResearch and Education Center in Jackson, and the recently added location at the Plateau AgResearch and Education Center in Crossville. The original collection of UT Gardens is located on the UTIA campus in Knoxville, and in May is celebrating 30 years of horticultural education and research. The second site of the UT Gardens is at the West Tennessee at the AgResearch and Education Center in Jackson. It’s been a part of the UT Gardens system since 1989.

The UT Gardens mission is to cultivate an appreciation of plants through horticultural displays, educational programs and research. Every year more than 100,000 visitors travel to UT Gardens locations to attend one of the many special events and educational seminars or simply to explore the beautiful grounds. The gardens also serve as an outdoor laboratory where researchers evaluate the performance and landscape appeal of each plant.

The UT Gardens system was recently named as the official Tennessee State Botanical Garden and the gardens are also recognized as a certified Tennessee Arboretum.

All UT Gardens locations are open to the public and free to visit, although some events are fee based.


To learn more about The UT Gardens visit [http://utgardens.tennessee.edu](http://utgardens.tennessee.edu) or follow us on Facebook.
Get free gardening advice at UT’s Fruits of the Backyard Field Day

Visitors can learn useful tips for both lawn maintenance and gardening at the annual University of Tennessee Institute of Agriculture’s Fruits of the Backyard Field Day. This free event takes place on Tuesday, June 18, at the Middle Tennessee AgResearch and Education Center (MTREC). The event is ideal for homeowners who want to get the most out of their yards, whether that be creating a beautiful lawn or managing a small fruit orchard.

The highlight of the field day will be three hands-on informational sessions. Led by UT experts, topics will include bees and other pollinators, managing pests and diseases and growing your own peaches. These presentations will be followed by an open panel question and answer session.

In addition to the presentations, visitors can also enjoy tours of the MTREC fruit orchards or check out a trade show featuring area merchants, equipment demonstrations, and exhibits from university departments offering free production information. Several UT experts will be on hand to offer free evaluations of plant diseases and pests. Visitors are invited to bring in specimens. Also, Debbie Joines, manager of UT Extension’s Soil, Plant and Pest Center will be on hand to provide free soil pH analyses. Those interested in this service should bring a sandwich bag full of the soil they wish to be tested.

“The purpose of Fruits of the Backyard is to offer homeowners and even commercial producers an opportunity to learn about lawn and garden management strategies that are both effective and economical,” says Kevin Thompson, MTREC director. “It’s especially important for the growing number of novice gardeners to have a plan of action in place so they can enjoy the fruits of their labor.”

Fruits of the Backyard gets started at 8:30 a.m. on Tuesday, June 18, 2013. The program ends at 12:30 p.m. The event is free and open to the public. For more information, visit the website, http://middletennessee.tennessee.edu or call 931-486-2129.

MTREC is located on Highway 31, just minutes south of Nashville. Take exit 53 from I-65 and follow the signs to Columbia. MTREC is on the east side of Hwy. 31.
May Plant of the Month: Chinese fringetree
Submitted by Carol Reese, UT Extension horticulture specialist, Western Region

For beauty, durability and adaptability, Chinese fringetree (Chionanthus retusus) should head anyone’s list for a small flowering tree. It features glossy foliage and white lacy flowers in late spring.

The foliage is attractive throughout the season — a shiny dark green that looks clean and polished through even the dog days of summer. Fall color may be a nice yellow, but rarely spectacular.

The tree is dioecious, and females bear egg-shaped blue-black drupes about a half inch long.

While its close cousin, the American fringetree (Chionanthus virginicus) is a great beauty, if I only had room for one, it would be the Chinese. The flower’s individual petals are larger, so the flowers appear a brighter white. Plus, the flowering panicles are borne above the foliage, almost like snow lying atop the dark green leaves. In fact, one of the best selections is called ‘China Snow’, and was introduced by Tennessee premier plantsman Don Shadow, from cuttings he collected in Knoxville several decades ago. The specimen at UT Gardens, Jackson, has been extremely impressive with its stunning floral displays each year, even when newly planted.

I particularly like the foliage on ‘China Snow’ as well. I have purchased more than one Chinese fringetree over the years, and there’s lot of variability in the foliage characteristics. Invariably, they are broader than American fringetree, but on some forms, such as ‘China Snow’, the leaf is leathery and nearly round with an undulated margin. This makes the already shining leaf multifaceted, so that it practically glitters in the sun.

The Chinese also has a more attractive bark, and is a bit more widespread than the American, unless you locate the columnar form called ‘Tokyo Tower’. Harald Neubauer at Hidden Hollow Nursery of Belvidere, Tenn., reports that the parent plant was about 15 feet tall, but just six feet wide, and remarkably beautiful.

Chinese fringetree is easy to grow in sun or mostly sun and tolerates a wide range of soil, except extremely wet. You should expect it to eventually reach 20 feet tall and wide. It’s a head-scratcher that these trees aren’t planted more.

Reduce the risk of ticks in your yard and home

Did you know there are steps you can take to reduce the risk of ticks in your yard?

Researchers with the University of Tennessee Institute of Agriculture have practical advice both for landscaping and managing your pets to minimize the risk of ticks and tick bites.

Graham Hickling, director of the UT Center for Wildlife Health, advises homeowners to keep their grass mowed and to remove leaf litter, brush and tall weeds from around the home and at the lawn’s edge. Gravel, woodchips or dry mulch can help keep ticks away from paths and children’s play structures. If tick problems become severe, consider employing a pest management company to apply a chemical barrier treatment around such areas.

Another tip is to use plantings that do not attract deer and other wildlife. If deer are common in your area, exclude them from your yard by fencing. Deer frequently carry ticks.

To protect your pets, minimize the time that dogs and cats spend outdoors in areas with leaf litter, brush and tall weeds. Always check your pets for ticks when they come back indoors.

Discuss with your veterinarian the various treatments available that can help your pet avoid tick bites and learn the signs your pet might exhibit if affected by a tick-borne disease.

These practical tips can help you minimize the risk of ticks on your pets and in your home.
A program of the University of Tennessee Extension

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What is it?
Plant: Knockout rose
This is the Rose bush planted at the Sequatchie Valley Master Gardeners at the Sequatchie County Fair. Something had been eating on it what is it?
FYI Some of you are aware of the problem and know the answer thanks to John Formby for solving the problem. Answer on the last page.
Dates to Remember

- August 3,  – Quarterly Meeting, Dunlap
- August 6, Steak and Potatoes Field Day Crossville
- August 12-17, Sequatchie County Fair
- September 10-14, Bledsoe County Fair
- November 2, – Quarterly Meeting, Pikeville

Go wild at UT’s Summer Celebration

2013 theme features Tennessee wildlife and native trees and shrubs

JACKSON, Tenn. – The annual Summer Celebration Lawn and Garden Show, a one-day adventure for gardening enthusiasts, devoted naturalists, and anyone who enjoys the outdoors, will take place at the University of Tennessee Gardens in Jackson, located at the West Tennessee AgResearch and Education Center on Thursday, July 11, from 10 a.m. until 6 p.m.

This will be the first Summer Celebration since the UT Gardens was named the Volunteer State’s official botanical garden. Fittingly, the event will honor the state with the special theme, “Wild Tennessee.” In addition to tours and talks on the best ornamental plants for your landscape, you can learn more about Tennessee wildlife. From the birds of the air, to elusive furry mammals, amphibians, reptiles and other creepy crawlies, these presentations will dazzle and delight visitors of all ages. Special talks will emphasize Tennessee’s native trees and shrubs.

Other presentations include tours of the newly expanded conifer gardens, as well as the annual and perennial trial beds. Best plants for butterflies, organic and herb gardening and gardens of New Zealand round out the agenda.

The 18 garden and wildlife lectures officially begin at 10 a.m., but we suggest you arrive a little early. Beginning at 9 a.m. you can shop an amazing selection of trees, shrubs and perennials at the Master Gardeners’ Plant Sale. You can also use this time to reserve a spot at the UT Kitchen Divas’ cooking demonstration, “Breakfast & More.” These spots fill up quickly, so stop by Room 162 for a reservation ticket at no extra charge.

If you have a gardening grievance, take it to the experts manning the Plant and Insect Diagnostic Center. They can identify weeds, plant diseases and insect damage. Additionally, they’re offering free testing of soil pH levels, so bring a cup of soil from your landscape.

When you’re ready for a break, take a ride on the relaxing AgResearch wagon tour. You’ll get to see areas of the farm not generally open to the public, as UT scientists fill you in on their cutting-edge research that’s contributing to the success of Tennessee farmers. You can also visit the 4-H All-Stars food tent for a hamburger right off the grill with all the fixings. And don’t forget to visit the vendor tent to check out more plants, supplies, garden tools and unique outdoor art.

Admission to the Summer Celebration Lawn and Garden Show is $5 for adults, but the event is free for children 17 and under. For more information, including directions to the event and the complete program, visit the website http://west.tennessee.edu/events.
July Gardening Tips

Perennials, Annuals, & Bulbs
- Continue to deadhead various annuals and perennials to encourage profuse blooming.
- Cut back tall, fall-flowering perennials such as iron weed, mums, and asters by one-third to one-half to reduce their ultimate height and prevent them from lodging.
- Watch for crabgrass and other weeds that invade your summer garden.
- Keep plants watered, especially container plants. July typically will be drier than any other month to date in the gardening season.
- Purchase and plant fall-blooming perennials such as anemone, hardy sunflowers, sedums, and toad lily. Be sure to water these plants until they become well established. Sunflowers can still be direct seeded to ensure their colorful show until frost.

Shrubs & Trees
Prune hydrangeas after bloom. Flower buds are formed in late summer and early fall; pruning later in the year will remove next year's flowers.
Prune clematis and wisteria when they are finished flowering.

Fruits & Veggies
- Harvest vegetables regularly to keep your garden productive. The bigger the squash get the fewer you will have.
- Plant green beans by July 10.
- If necessary, cover fruit trees with netting to protect the fruit from birds.
- Prune blackberries after harvest has ended. Remove the dying fruiting canes and tip back the vigorous, new growth two or three times to form a dense hedge for greater fruit production.
- Begin preparing your fall garden. Set out broccoli, cabbage, and cauliflower transplants and sow lettuce, collards, kale, and spinach seeds in late July or early August for harvest before the first freeze.

Lawn Care
- Your grass will be fine if you stop watering your lawn and let it go dormant. As cooler weather and rainfall return, it will revive. If you prefer that your lawn be green and lush through summer, mow at a higher height and water deeply.

Wildlife Notes
- Bluebirds are hatching their third nests
- Young bats learn to fly
- Chipmunks are bearing their second litter
- American kestrels begin migrating into Tennessee by late August
- Bullfrogs, green frogs, cricket frogs, and gray tree frogs are calling throughout TN
- Cicadas are “calling”
- If bats are in your attic, don’t close them up now
  - young are still present, but will be flying soon
  - if you close them up, they will die and produce a terrible odor
  - maternal colonies will be leaving for hibernation before too long
  - close all outside openings to attics as soon as the bats leave
- Blackbirds begin flocking later in August
  - don’t allow them to roost in the trees in your yard; if they start, they’ll form a habit
  - repel them with noise makers consistently until they stop returning in the evening (shotguns, firecrackers, banging metal pans together)
  - be persistent
  - refer to Managing Nuisance Animals and Associated Damage Around the Home, PB624, or visit http://icwdm.org.
UT Gardens June 2013 Plant of the Month: Ogon spirea

*Ogon spirea* makes a brilliant contrast against plants with bold leaves or plants with purple or bronze foliage. Submitted by Carol Reese, UT Extension horticulture specialist, Western Region

If you live in an older neighborhood, you are likely to find a *Thunberg spirea* somewhere on your street, perhaps in your own yard. It is one of those plants so durable that it is likely to outlive the person that planted it, or even the home itself.

It is usually the first of the spirea species to flower in spring. The curving delicate branches will be covered with small white flowers that are unfazed by frost. Except for the interest found in the fine wispy foliage, it offers little more in the landscape until fall, when the foliage is diffused with soft peach and orange hues. That is, unless you plant the cultivar ‘Ogon’, now sometimes sold under the trademarked name Mellow Yellow. Now we are talking about a plant that offers very early spring bloom, gorgeous golden foliage throughout the summer and lingering fall color.

While many shrubs stand stiffly in the landscape, Ogon spirea moves softly in the breeze, adding a diaphanous quality in direct contradiction to its sturdy constitution. It makes a brilliant contrast against plants with bold leaves, or even better, with plants of purple or bronze foliage.

Hardy in zones 4 – 8, this plant performs best in full sun. Part shade will work, but the golden color will dim in response to shade. It prospers in any soil except overly wet and will form a somewhat weeping mass about 5 feet wide and 4 feet tall.

Five Seed Saving Lessons from the Ground Up

- Lesson One – Know Your Seed’s Dormancy Requirements
- Lesson Two – Where you grow is as important as what you grow...
- Lesson Three – Citizen Science Opportunity
- Lesson Four – Saving & Sharing Seed
- Lesson Five – Finding Seeds through Organizations

These five lessons are a summary of a blog post on the eXtension Website to read the full article go to: [http://blogs.extension.org/mastergardener/2013/03/31/five-seed-saving-lessons-from-the-ground-up/](http://blogs.extension.org/mastergardener/2013/03/31/five-seed-saving-lessons-from-the-ground-up/)

Another great article on the topic of seed saving can be found at: [http://blogs.extension.org/mastergardener/2013/03/21/saving-seeds-harvesting-the-future/](http://blogs.extension.org/mastergardener/2013/03/21/saving-seeds-harvesting-the-future/)
Planning to can tomatoes? Here’s what you need to know

Home canning continues to make a comeback, and tomatoes are among the most popular commodities to can says Dr. Janie Burney, a professor and food preservation specialist with the University of Tennessee Extension Department of Family and Consumer Sciences.

As the canning season begins, Burney answers questions that beginners and those experienced in food preservation often ask about canning tomatoes.

**Question:** Why do I need to add lemon juice to tomatoes and salsa before canning?

**Burney:** It’s all about pH. A food’s pH is a measure of its acidity or alkalinity. You may think of tomatoes as an acidic food, but they may not be acidic enough to make your canned tomatoes or salsa safe to eat.

When you can foods so that they can be stored at room temperature, you have to be sure to destroy harmful bacteria called *Clostridium botulinum*, the type of bacteria that cause botulism. These bacteria produce a dangerous neurotoxin that can be fatal. When a food is acidic enough, these bacteria cannot grow and produce the toxin.

**Question:** Do all tomatoes have the same amount of acid?

**Burney:** No, they don’t and that is part of the problem. The amount of acid in a tomato can depend on many factors including variety of tomato and growing and harvesting conditions. Studies have demonstrated that when a tomato stays on the vine it loses some of its acidity over time. The amount of direct sunlight a tomato receives as it ripens on the vine, or whether it is ripened on the vine, also can affect pH. A tomato harvested from dead vines, or a damaged or decayed tomato, may be less acidic. The North Dakota Extension Service tested several varieties and found their pH varied considerably.

**Question:** What are heirloom tomatoes, and are they more acidic than other tomatoes?

**Burney:** Tomatoes referred to as “heirloom” or “heritage” are open-pollinated varieties that are valued for their unique colors, shapes, flavors and legacies. Open-pollinated means they are pollinated by insects, birds, wind or other natural means. The name generally refers to varieties that existed before the 1940s, before industrial farming spread dramatically in the U.S. Some people have assumed that heirloom tomatoes are more acidic than others, but one study by Utah State University Extension actually demonstrated that some may be less acidic that hybrid varieties. The bottom line is that most home canners don’t know the pH of their tomatoes, so adding an acid is the safe way to go.

**Question:** How do I acidify my tomatoes before canning?

**Burney:** Add two tablespoons of bottled lemon juice (not fresh) or one-half teaspoon of citric acid per quart of tomatoes. For pints, use one tablespoon bottled lemon juice or one-quarter teaspoon of citric acid. Acid can be added directly to the jars before filling.

**Question:** Do I need to acidify if I use the pressure canner to process my tomatoes?

**Burney:** Yes, you do. Currently, USDA does not have a time established for processing tomatoes that have not been acidified. A time established using a scientific method is necessary to ensure that *Clostridium botulinum* bacteria are destroyed. However, processing in a pressure canner can save you time and will result in a more nutritious product of higher quality than processing in a water-bath canner.

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**Master Gardener Hours**

as of June 24, 2013

To date 991 hours have been recorded by SVMG members with the value of the hours $21,942.73 (@ $22.14/hour)
Simple steps to reduce the risk of tick bites

Warm weather means Tennesseans are spending more time enjoying the great outdoors, but outdoors means exposure to insect pests and ticks.

Researchers with the University of Tennessee Institute of Agriculture say there are steps you can take to minimize the risk of tick bites and tick-borne infections.

Graham Hickling, director of the UT Center for Wildlife Health, says if you’re concerned about ticks and heading outdoors, use insect repellant containing 20 to 30 percent DEET. Follow package instructions and do not apply under clothing or to children under two months of age.

If working regularly in the field, consider also applying permethrin to clothing. Permethrin will last through several washes, but must not be applied to skin — again, be sure to follow package instructions.

Wear light-colored clothing and tuck long pants into your socks to help keep ticks off of your skin. Wear close-toed shoes or, even better, boots sprayed with permethrin. Your children can be at particular risk. While ticks are unlikely to be encountered in open fields, children chasing balls or cutting through scrub or woods are entering high-risk tick areas.

Your best protection against a tick-borne infection, Hickling says, is a careful tick check.

“Check immediately after being outside and again in the evening while you are undressing. Do thorough checks of your children and pets. If you find an attached tick, simply use tweezers to remove them. Definitely avoid folk remedies such as hot matches, nail polish remover, petroleum jelly or other substances — these will not work if the tick is firmly attached. Grasp the tick mouthparts as close to the skin as possible and pull the tick straight out using steady pressure.”

Wash the area with soap and water, then dry and apply a topical antiseptic.

Mark the spot where the tick was removed and record the date on your calendar. Watch during the next two weeks for signs of illness (fever, headache or spreading rash.) Contact your physician if you feel you may be developing early symptoms of a tick-borne illness.

Consider keeping ticks that were firmly attached for a week or so, to be able to show to your doctor in the event that you start to become ill. Place the tick in rubbing alcohol or in the freezer.

But keep in mind that most tick bites in Tennessee will be harmless. So be sure to get outside and enjoy our state’s abundant natural beauty while keeping these sensible precautions in mind.

For more information, visit the Tick Encounter Resource Center, http://tickencounter.org/prevention

What is it answered

Rose slugs (aka Rose sawflies) are the larvae (immature forms) of sawflies, non-stinging members of the wasp family. Three species of sawflies, the roseslug (*Endelomyia aethiops*), bristly roseslug (*Cladius difformis*), and curled rose sawfly (*Allantus cinctus*), are pests of roses. The larvae of some sawfly species are hairy and often mistaken for caterpillars, and often feed at night. Others appear wet and shiny, superficially resembling slugs. The larvae generally reach about ½ to ¾ inch in length. Contact your extension agent for details on control.
Emerald Ash borer found
The Emerald Ash Borer has been found in Hamilton County. Found near the Chattanooga Rail lines and in the adjacent park the finding concerns officials because it is outside the quarantine area.

Three Web sites to visit for more information
UT website http://eppserver.ag.utk.edu/invasive-species-site/emerald_ash_borer.shtml
The Tennessee Department of Agriculture also has a link http://www.tn.gov/agriculture/regulatory/eab.shtml
And www.protecttnforests.org
• Leave firewood at home. Don’t transport firewood, even within the state.
• Use firewood from local sources near where you’re going to burn it, or purchase firewood that is certified to be free of pests (it will say so on the label included with the packaging).
• If you have moved firewood, burn all of it before leaving your campsite.
• Watch for signs of infestation in your ash trees and report what you find.
August quarterly Meeting

Set for Saturday August 3
Please! If you have not responded with your plans to attend the August meeting do so soon!

The following is from an email John Formby sent to Master Gardeners.

The Executive Board of the SVMG Association met recently and agreed on preliminary plans for the first annual Sequatchie Valley Tomato Tasting and Evaluation, which will be the educational program at the regularly scheduled Quarterly SVMG meeting on August 3rd. The meeting will be at the Mountain Valley Bank's Summit Room in Dunlap. An Agenda will be circulated 7-10 days in advance of the meeting. The business meeting will be brief and begin at 10:00 AM, followed by the Tomato Tasting and Evaluation. Guests are welcome to sit in on the short business meeting.

Listing are some of things you need to know about the Tomato Tasting event below.

1. The meeting and Tasting is not open to the public.
2. MG's (including Interns) in “good standing” and County Agents are eligible to participate in the Tasting and each can bring their spouse or one guest.
3. Everyone has ample time to get their Volunteer and CEU hours up to date. If you have not paid the 2013-2014 dues, you can do so at the August 3rd meeting.
4. The tasting will be similar to the one conducted by Rutgers University Extension over the last 5 years. In particular, the tasting will be “blind” and a brief evaluation Instrument for each cultivar tasted will be completed by each participant.
5. The Executive Board believes that to properly conduct the first Sequatchie Valley Tomato Tasting advance notice of the number who plan to attend is imperative. Therefore, we need to know whether you will be attending and if you will be bringing a spouse/guest.
6. Please notify John concerning your attendance plans or if you can help provide tomatoes. Notifications can be sent by email to him (atinjohn@msn.com), Ken (lee37327@yahoo.com) or Nita (mtntopretreat@hotmail.com). You can also notify us by phone (533-2995 or 949-9655), but emails are preferred. If your plans change let us know. - from John Formby, SVMG President

MG Hours Update

- MG 2013 (as of July 10, 2013)
- 1160.75 hours (Value @ $22.14/hour)
- $28,298 value of hours, service, mileage, etc.
Hummingbird Festival Offers Close-up View of Hummingbirds

From Master Gardener Ann Wheeler, article by Vickie Henderson

The Ruby-throated hummingbird weighs only about 1/10th of an ounce, and has a brain approximately the size of a BB. Yet, hummingbirds are considered masters of navigation, timing and memory. Year after year, a male hummingbird may return to the exact same breeding territory and land on the same favored perches on the same calendar date each spring. Females will return to the same nest site, refurbish the nest, and use it for a number of successive years.

On August 24th, at the third annual Wonder of Hummingbirds Festival, Knoxville residents and visitors will have the opportunity to see Ruby-throated hummingbirds up-close at the banding table with Mark Armstrong, a certified Master Bander of both hummingbirds and songbird species. Hummingbirds will be harmlessly captured, weighed and measured, and banded before being sent on their way. At the demonstration, visitors can witness the delicate process of applying a numbered band to a hummer’s tiny leg so that its future migration movements can be tracked. Children, in particular, will enjoy this close-viewing opportunity.

Banding has enormous scientific value, providing a way to document the specialized timing and direction of hummingbird movement during migration. August and September are busy migration months in Tennessee when thousands of hummingbirds from northern breeding territories are moving south through our state on their way to wintering grounds in Central America and southern Mexico.

The festival will treat visitors to renowned speakers on nature topics, live animal demonstrations, guided walks and vendors selling food and drinks, locally made arts and crafts, bird feeders and supplies, garden items, and a “Bargain Barn” selling gently used merchandise with nature themes.

This year’s festival includes expert speakers that will present programs from 10:00 a.m. to 4:00 pm. T. David Pitts, Professor of Biology, UT Martin will talk about “The Hummingbirds that Nest in your Yard”. Other speakers include Marcia Davis, Birdlife Columnist for the Knoxville News Sentinel, David Unger, Professor of Biology, Maryville College, and Steve McGaffin, Naturalist and Educator for the Knoxville Zoo. Lynne McCoy, a wildlife rehabilitator who takes in 600-800 birds and mammals to rehabilitate and release back to the wild when possible, will bring a few of her “ambassadors” to meet festival visitors.

The Wonder of Hummingbirds Festival will take place Saturday, August 24th from 9:00 a.m. to 5:00 p.m. and has an admission of $5.00. Children under six are admitted free. The festival is co-sponsored by the Knoxville Chapter of the Tennessee Ornithological Society and Ijams Nature Center, and will be located at Ijams, 2915 Island Home Ave., Knoxville, TN 37920 (865-577-4717).

The Knoxville Chapter of the Tennessee Ornithological Society was organized in 1924 to promote the enjoyment, scientific study and conservation of birds. The chapter provides the annual JB Owen Award for projects that promote the welfare and conservation of birds in Tennessee. The organization meets on the 1st Wednesday of each month at 7:00 p.m., Room 118 in UT College of Veterinary Medicine. Activities include field trips each month and spring, fall and Christmas bird counts.

Ijams Nature Center seeks to increase knowledge, understanding and appreciation of the natural world by providing quality environmental educational programs and nature related experience for all people.
August Garden Tips

Experts with the University of Tennessee Institute of Agriculture recommend the following August chores to fill your lazy summer days and keep your garden and landscape in top condition:

- Rather than viewing weeds as an enemy, see them as a way to relieve stress. Get out in your garden and pull these unwanted plants. Weeds will be an even bigger problem next year if you let them go to seed. If you want to use chemical control, be sure to select the appropriate herbicide for the location and follow label instructions.
- August is a great time to plant perennials in pots to add late-season color to your garden.
- Remember to keep tall flowers staked.
- Be sure to keep garden mums well fertilized until buds show color.
- Check water needs daily. During the hot days of August, hanging baskets and containers tend to dry out daily.
- The fallen leaves below your roses and peonies need to be cleaned out to avoid diseases and insect invasion during the winter months.
- Pick summer vegetables every day or two to keep the plants producing.
- Take plenty of photos of your garden so next year you can refer back to them to see which plants you liked or disliked.
- Hummingbirds migrate in August so keep feeders full.

Sequatchie County Fair

The Sequatchie County Fair will be August 12-17, anyone who lives, works, or is associated with Sequatchie County can enter the Fair, and this includes SVMG members.

- On Monday, August 12 entries will be taken at the fair from 9:00 AM to 7:00 PM (except cut flowers and baked goods). Master Gardeners can help during these hours taking entries.
- Tuesday, August 13, Flower Show entries 9:00 AM till 11:00 AM, judging will take place that morning, volunteers may be needed to help judges and to set up exhibits.
- Wednesday, August 14 through Saturday August 17, 2:00 PM till 10:00 PM Fair open to public.
- Wednesday, August 14 Baked goods entered from 3:00 PM till 5:00 PM
- Sunday August 18, from 2:00 PM till 5:00 PM and Monday August 19 2:00 PM till 7:00 PM entries can be picked up Entries must be picked up by August 19

Other events at the Fair

- Saturday, August 10 Fairest of the Fair contests
- Tuesday, August 13 Pet Show 6:00 PM
- Friday, August 16 4-H Events
  - Demonstrations 4:00 PM till 5:00 PM
  - Clover Bowl 5 PM
  - 4-H Awards for 2012-2013 7:30 PM
- Saturday, August 17, 4-H Poultry Show 11:00 AM

Fair Books will be available soon!
Plant of the Month

Submitted by Beth Willis, trials coordinator for the UT Gardens, Knoxville

If your garden is crying out for something a little different — you owe it to yourself to check out sea holly. Not only is it an architecturally striking plant, it thrives in conditions often considered challenging. *Eryngium*, commonly known as sea holly or eryngo, can refer to several closely related species in the Apiaceae (carrot) family. Plants form numerous blooms of tight umbels with spiny bracts surrounding each bloom. Each bloom and even the stems can display a blue or violet color. Most varieties grow to between 2 and 3 feet tall from a basal rosette.

Sea holly prefers full sun and a well-drained location and does best in poor soils. When grown in rich soils or part shade, plants tend to sprawl if not staked. Most cultivars are hardy to zone 5, and once established are very drought tolerant. Site the plant carefully before planting, as it does not transplant well due to its large taproot. Most of the varieties will self-seed, so remove seed heads if you don’t want volunteers. Sea holly can also be propagated by careful division or by root cuttings.

Sea holly can be dramatic as a single specimen or in a mass planting, and it can fit into every garden style from formal gardens to wildflower collections to rock gardens. It is very attractive to butterflies. If the stalks and spent blooms are left on the plant, it provides winter interest in the garden. Stalks can also be removed and used either fresh or dried in bouquets and other arrangements.

Sea holly is not susceptible to any significant pest or disease problems, and it has no major maintenance issues. Once planted and established, it is remarkably carefree in the garden.

Some of the varieties available on the market include:

*E. planum* ‘Blue Glitter’ – starts easily from seed, and can bloom first year from seed.

*E. zabelii* ‘Big Blue’ – boasts some of the largest blooms of any variety – up to 4 inches wide.

*E. planum* ‘Jade Frost’ – variegated foliage of pink, cream and green make this a personal favorite.

*E. giganteum* (Miss Wilmott’s Ghost) – silvery blue blooms on plants that reach up to 6 feet in height.

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So, you want to can your own food...

Now is a great time to learn how to preserve your food at home because canning is making a comeback, says Dr. Janie Burney, a professor and food preservation specialist with the University of Tennessee Extension Department of Family and Consumer Sciences.

“If you need some way to preserve food that you have grown yourself or purchased at a grocery or farmers market, canning may be the thing to do,” said Burney. She adds that home canning equipment has never been safer or easier to use.

“The best way to start is by using the right equipment, proper techniques and up-to-date home canning recipes from your local University of Tennessee/Tennessee State University Extension Office,” Burney recommended. The food preservation expert explained that extension agents trained in the field of family and consumer sciences, formerly called home economics, offer a variety of educational programs in home food preservation in counties across the state.

“Don’t hesitate to call your local county extension office for detailed information,” she said. “Extension agents have a long history of providing advice on how to preserve foods safely at home. Extension agents are part of the national Cooperative Extension System, which is a partnership between the USDA, the University of Tennessee or Tennessee State University, and your county. USDA published instructions for canning as early as 1909 in pamphlets known as farmer’s bulletins.”

As the spring and summer canning season approaches, Burney is often asked to review some of the basics of canning. Here’s a set of answers to many questions that beginners and those experienced in food preservation often ask.
**Question:** How do I need to prepare for canning season?

**Burney:** It’s never too early to start thinking about what supplies and materials you will need. Don’t wait until the food is ready to be harvested. Start by checking your equipment and supplies. Proper equipment in good condition is required for safe, high-quality, home-canned food.

A pressure canner is a must for canning low-acid vegetables, meats, fish and poultry. Two basic types are available. One has a dial gauge to indicate the pressure inside the canner; the other has a metal weighted gauge. Dial gauges must be tested for accuracy before each canning season. For information on testing a dial gauge, call your county extension agent. Check the rubber gasket if your canner has one. It should be flexible and soft, not brittle, sticky or cracked. Also make sure any small pipes or vent ports with openings are clean and open all the way through.

A boiling water canner is needed for canning fruits, pickles, jellies and jams. The canner should be deep enough to allow at least one to two inches of water to boil over the tops of the jars. Both pressure and boiling water canners should have a rack in the bottom to keep jars off the bottom of the canner.

If you have canned before, inspect old jars for nicks, cracks or chips, especially around the top sealing edge. Nicks can prevent lids from sealing. Very old jars can weaken with age and repeated use. They break under pressure and heat. Consider investing in new jars and watch for specials in stores. New jars are a better investment over time than buying used jars at yard sales or flea markets.

Mason-type jars specifically designed for home canning are best. Jars that use two-piece self-sealing metal lids are recommended by USDA. These have been tested in many canning processes and form good seals. Used lids should be thrown away. The screw bands are reusable if they are not bent, dented or rusted.

**Question:** Where can I find instructions for canning specific foods?

**Burney:** Your local Extension Office is one source for instructions. You also can find safe recipes from USDA and from other Extension offices across the country. If you use the Internet, bookmark the site for the National Center for Home Food Preservation (http://nchfp.uga.edu/). Look for instructions on web sites that end in “edu” or “gov.” Recipes on web sites that end in “com” may not be safe. One exception is the national extension website: http://www.extension.org. Just search the term “canning.”

**Question:** Why can’t I use my grandmother’s old canning recipes? I can’t recall anyone getting sick.

**Burney:** Through the years, home canning methods and techniques are constantly tested and improved to assure the safest, most effective way of processing food due to the changes in variety of foods, soil conditions and bacteria living in soil and water. The food you grow today may be very different from the food your grandmother grew. Tomatoes are a good example. Your tomatoes may be less acidic than those in your grandmother’s garden, which makes a difference in how they are canned.

**Question:** How can I determine how much food to preserve for my family?

**Burney:** Preserve enough for your family for about a year. It may be tempting to can all those green beans you grow. However, the longer they are stored, the more quality they will lose. There may also be changes in texture, changes in color and loss of flavor. Call the Extension office for information on yields for canned or frozen fruits and vegetables.

Burney’s bottom line is that even if you have never tried home canning, you can be successful with proper equipment and proper instructions, and the best source for those instructions is your local extension office.

“No matter what reason you have for preserving food at home, do it safely,” she advises. “Successful home canning requires only that you observe simple guidelines.”
What is it?

On a Gala apple. Although the person who asked me about the problem was seeing symptoms on Fuji as well.

Of course this being a cool wet summer, has only increased the likelihood of this problem occurring.

Answer on page 2.

August Tomato Tasting

More on page 3
Dates to Remember

- Tuesday, August 27, 2013, 9:00 am [Fall Gardeners' Festival](#) Plateau Research & Education Center
- Saturday, August 24th from 9:00 a.m. to 5:00p.m. EDST, The Wonder of Hummingbirds Festival admission of $5.00. Ijams, 2915 Island Home Ave., Knoxville, TN 37920 (865- 577-4717) [http://ijams.org/hummingbird-festival/](#)
- September 10-14, Bledsoe County Fair
- Thursday, October 24, 2013, 10:00 am to Noon [Fall Floral Arrangements](#) Plateau Research & Education Center
- November 2, – Quarterly Meeting, Pikeville
- Tuesday, November 19, 2013, 1:00 pm - 3:00 pm [Planting Trees and Shrubs](#) Plateau Research & Education Center

MG work at Sequatchie County Middle School

MG's Laura Jones, Ruth Baxter, Linda Barker, Tina Plain, Edna Clemons, retired teacher Carolyn Sims worked on SCMS project.

What is it? The answer

Apple scab.

“It is usually worse during extended cool, wet weather with the more intense infection occurring from bud break through blossom formation. Secondary infections can occur into June with favorable weather for the fungus, causing leaf defoliation which could reduce next year’s crop. Rake up infected leaves, and use captan early when leaves are coming out. (Communication with B. Kauffman 07/30/13 via Distant Diagnostic system)”


MGs at Sequatchie County Fair

A dozen or so SVMG members helped take entries on Monday at the Sequatchie Co. Fair, and several more helped on Tuesday.
August meeting “Tomato Tasting”

Article by John Formby

Master Gardeners held the First Annual Sequatchie Valley Tomato Tasting and Evaluation event August 3rd in Dunlap at the Mountain Valley Bank’s Summit Room. A selection of heirloom, hybrid and open pollinated tasty tomatoes grown by local Master Gardeners in Bledsoe and Sequatchie Counties were sampled in a “blind” taste test setting. According to John Formby, President of the Master Gardener Association, the tomatoes were then evaluated using a ‘Likert’ measurement scale. The taste measures ranged from 1 (“Did Not Like At All”) to 7 (“Liked Very Much”). Master Gardeners and guests evaluated each tomato variety based on sweetness, acidity, texture, flavor, and then provided an overall rating. The maximum possible score in each category was 7.0, which would mean everyone who tasted it liked it very much.

The different tomato varieties tasted included Beefsteak, Celebrity, Cherokee Green, Cosmonaut Volkov, Green Zebra, Mountain Magic, Russian Persimmon, Rutgers VFA, Siberian, and Tigerella.

Food scientists have determined that human taste buds can only discriminate between about five different tomato tastes in a relatively short period of time. Based upon advice of Rutgers University Extension, which has been conducting tomato taste evaluations for some years, Sequatchie Valley Master Gardeners divided people participating in its tomato tasting into two groups. One group tasted five tomatoes: Beefsteak, Cosmonaut Volkov, Mountain Magic, Russian Persimmon, and Siberian. The second group tasted five different tomato varieties: Celebrity, Cherokee Green, Green Zebra, Rutgers VFA, and Tigerella.

In the first tasting group the highest rated tomato for both flavor and overall was Beefsteak, with average scores of 5.4 for flavor and 5.2 overall. In the second group Green Zebra was most highly rated with scores of 4.8 and 4.9. Rutgers VFA was a close second in this tasting group. Tomatoes with the lowest scores were Celebrity and Siberian. Beefsteak, Rutgers VFA, and Siberian are all heirloom Tomatoes that date back to before World War II. Celebrity is a hybrid and Green Zebra is an open pollinated variety, but not an heirloom.
Open pollinated means the seeds can be saved and when sown the plant will come back true, closely resembling the original. Seeds from a hybrid plant will not come true when replanted. Heirlooms are open pollinated plants that have been grown for 75 years or more. If gardeners keep growing it, Green Zebra will eventually become an heirloom. According to Formby, that is highly likely to happen because once people see and taste Green Zebra almost everyone likes the distinctive green tomato with black stripes. Green Zebra turns slightly yellow as it ripens and the stripes become less noticeable. Many people say Green Zebra is the best tomato they have ever tasted. But people’s tastes differ and that’s one of the things that make a Tomato Tasting event fun.

If future growing conditions permit, local Master Gardeners plan to repeat the Sequatchie Valley Tomato Tasting and Evaluation in 2014.

The Tomato Tasting Results

The final scores of the 10 tomatoes included in the Taste and Evaluation study are shown below. Keep in mind that that the samples of Tasters are small, so care must be exercised in interpreting small differences in average scores. One set of evaluations in the B Tasting Group came in late, so the Group B scores for Flavor and Overall Rating are slightly different from those announced at the meeting.

<table>
<thead>
<tr>
<th>Tasting Group A (n=13)</th>
<th>Sweetness</th>
<th>Acidity</th>
<th>Texture</th>
<th>Flavor</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 Russian Persimmon</td>
<td>4</td>
<td>3.9</td>
<td>4.9</td>
<td>4.9</td>
<td>4.5</td>
</tr>
<tr>
<td>A2 Cosmonaut Volkov</td>
<td>4.1</td>
<td>3.9</td>
<td>4.6</td>
<td>4.5</td>
<td>4.3</td>
</tr>
<tr>
<td>A3 Cherokee Green</td>
<td>4.2</td>
<td>3.8</td>
<td>4</td>
<td>4.1</td>
<td>4.2</td>
</tr>
<tr>
<td>A4 Beef Steak</td>
<td>4.8</td>
<td>4.3</td>
<td>5.3</td>
<td>5.4</td>
<td>5.2</td>
</tr>
<tr>
<td>A5 Siberian</td>
<td>3.9</td>
<td>3.7</td>
<td>4.3</td>
<td>3.8</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Tomatoes Tasted listed by overall rank
1. Beef Steak
2. Green Zebra
3. Rutgers
4. Russian Persimmon
5. Tigerella
6. Mountain Magic
7. Cosmonaut Volkov
8. Cherokee Green
9. Siberian
10. Celebrity
## Tasting Group B (n=10)

<table>
<thead>
<tr>
<th></th>
<th>Sweetness</th>
<th>Acidity</th>
<th>Texture</th>
<th>Flavor</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>Tigerella</td>
<td>4.1</td>
<td>4.2</td>
<td>4.7</td>
<td>4.6</td>
</tr>
<tr>
<td>B2</td>
<td>Rutgers</td>
<td>4.4</td>
<td>3.1</td>
<td>4.6</td>
<td>4.9</td>
</tr>
<tr>
<td>B3</td>
<td>Celebrity</td>
<td>3.4</td>
<td>4.1</td>
<td>4.1</td>
<td>4.1</td>
</tr>
<tr>
<td>B4</td>
<td>Mountain Magic</td>
<td>4.4</td>
<td>3.4</td>
<td>4.6</td>
<td>4.6</td>
</tr>
<tr>
<td>B5</td>
<td>Green Zebra</td>
<td>4.1</td>
<td>4.5</td>
<td>4.7</td>
<td>4.8</td>
</tr>
</tbody>
</table>
September Garden Tips

School is back in session, football season has started which can only mean its fall. So with autumn season just around the corner here are some tips from the University of Tennessee Institute of Agriculture for your September gardening:

Trees, Shrubs and Flowers
- Work on a landscape plan for fall planting of trees, shrubs, and bulbs. Most of the planting should wait until late October and November, but supplies will be at their peak in garden centers in September.
- Fertilize roses one last time. Prune rambler roses and remove any diseased or dead rose canes.
- Root prune wisteria that doesn't bloom.
- Divide, transplant and label perennials. Complete divisions by mid October to allow the roots time to establish before winter. Be sure to keep newly divided plants watered.
- If you've grown tender bulbs this summer such as caladium and dahlia, this is the month to dig them and put them into storage for next year’s use.
- Collect seed from perennials and annuals.
- Continue to cut flowers for drying, like yarrow, strawflower, and cockscomb.
- Remove and compost spent annuals and fallen leaves.
- Plant late-season annuals like pansies, snapdragons, Dianthus, ornamental kale and cabbage for color fall through spring.

Lawn care
- De-thatch and core aerate lawns to promote root growth and improve fertilizer absorption and seed germination.
- Lime lawns if a soil test indicates it is necessary.
- Perk up your lawn by fertilizing with nitrogen fertilizers. These will speed lawn growth, thicken the lawn and improve its color.
- If you have thin or bare areas in your lawn, seed and mulch them to reduce erosion and weeds.
- Introduce new, improved varieties or a tall-fescue blend. You need to seed by mid October, but you can fertilize as late as mid November.
- Get your Bermudagrass or Zoysia lawns ready for winter by increasing the cutting height this month. This helps buffer these grasses from cold damage.
- Apply a fertilizer with potassium to increase the hardiness of your warm-season grasses. Look for fertilizers formulated with a pre-emergence herbicide to prevent seeds of annual bluegrass and other winter weeds from germinating and competing with your grasses for light, nutrients and water.
- If your lawn is too shady for grass, now would be a great time to remove lower limbs and dead wood from large trees. This can greatly increase the amount of light reaching your lawn.
- Remove algae and moss from a shady lawn by raking or applying copper sulfate.
- Since grasses growing in shade are usually weak and spindly, remove fallen leaves as soon as possible.

Fruits and veggies
- If rain is lacking, continue to practice water-wise techniques for your cool-season garden.
- Add organic matter such as manure, compost and/or leaf mold to improve garden soils.
- Keep harvesting herbs, especially tender herbs like basil.
- Harvest onions and garlic as soon as the tops fall over and begin to dry out.
- Continue planting cool-season crops including leaf lettuce, spinach, cabbage, broccoli, Swiss chard, parsley, and radishes.

Odds and ends
- Bring house plants back indoors and inspect them for insects. Also take in tender aquatic plants from ponds.
- Continue to aerate and moisten your compost pile to speed decomposition.
- Begin to feed birds.
UT Gardens Plant of the Month: Common crapemyrtle
Submitted by Ben Ford, HGTV intern for the UT Gardens, Knoxville

Known as the “Lilac of the South,” common crapemyrtle (*Lagerstroemia indica*) is truly a southern garden staple. It is found in practically every southern landscape and adds multi-season interest to the garden. Depending on cultivar, the showy summer flowers bloom between late spring and early fall and flower colors range from white, pink, orchid, purple and dark red to true red. An added bonus, common crapemyrtle’s unique exfoliating bark and fall foliage color make it an alluring ornamental throughout the year.

Common crapemyrtles come in many different sizes to fit a variety of garden uses. With such an expansive selection, it is not difficult to find the desired color and size for your planting site. Dwarf cultivars such as ‘Pocomoke’ and ‘Cherry Dazzle’ grow less than five feet tall and are small enough to fit a small courtyard or city garden. They can also be used in containers or massed in borders.

Semi-dwarf cultivars grow five to 12 feet tall, intermediate cultivars grow 13 to 20 feet tall while tree varieties grow more than 23 feet tall. Intermediate cultivars and tree common crapemyrtles make excellent specimens near a patio or entryway. Tree types create gorgeous living arches and canopies over a driveway, walk or garden room. Site them where their summer blooms and winter exfoliating bark can also be enjoyed from indoors.

Whether multi - or single-stemmed, I suggest that the lower side branches of common crapemyrtle be removed as the plant grows to expose its gorgeous exfoliating bark. Though basal sucker growth can be a continual battle with common crapemyrtle, the plant’s durability and ornamental features make sucker maintenance worth the effort.

Common crapemyrtles do best in full to partial sun. They can take on the intense heat of summer and have moderate watering needs once mature. Common crapemyrtles are cold hardy from USDA hardiness zones 6 to 9 and can be killed back to the ground during a severe winter (-5 to -10 degrees Fahrenheit).

Spotted Wing Drosophila – another pest of concern

A very small fruit fly that effects soft-bodied fruit. In the last couple of weeks, reports of spotted wing drosophila (SWD) damage on blueberries, brambles, and grapes were noted in Tennessee counties. Those that have reported spotted wing drosophila trap catches or damage to fruit crops include Unicoi, Anderson, Greene, Warren, Grundy, Franklin, Coffee, Dekalb, Cannon, Moore, Franklin, Davidson, Cheatham, Sumner, Lawrence, Benton, and Gibson. There are a few other counties that are in the process of being confirmed, I recently sent samples from the Valley to the lab which they suspect as Spotted winged drosophila but not confirmed. To learn more visit the link below.

https://ag.tennessee.edu/EPP/Fruit%20Pest%20News/Forms/All%20Documents.aspx
A program of the University of Tennessee Extension

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IN THIS ISSUE
What is it?
Dates to remember
Gardening Tips
Plant of the Month

What is it?
Or what is wrong with this caterpillar?
A tobacco hornworm found this summer on tomatoes (they are a very annoying problem on tomatoes). However, this one has a problem - the small white things attached to its back. What are they?

Answer on page 2

SVMG Newsletter National Finalist
The National Association of County Agriculture Agents (NACAA) recognized Sheldon Barker and J. C. Rains as national finalist for their team newsletter (the SVMG newsletter) September 19. The newsletter was one of four finalist at the national conference.

Tennessee Extension Agents recognized at the NACAA Communications Awards Luncheon
Dates to Remember

- Tuesday, October 15,  
  fce Fall Craft Expo – educational programs available for CEUs
- Thursday, October 24, 2013, 10:00 am to Noon  
  Fall Floral Arrangements  
  Plateau Research & Education Center
- November 2,  
  Quarterly Meeting, Pikeville
- Tuesday, November 19, 2013, 1:00 pm - 3:00 pm  
  Planting Trees and Shrubs  
  Plateau Research & Education Center

What is it? Answered

“One of the most common parasitoids found in home gardens is a braconid wasp, which lays its eggs in the body of tomato (and tobacco) hornworms. The eggs of this parasitoid hatch into larvae that riddle the internal organs of the hornworm during development. As pupation occurs, the parasitoids can be observed in white cocoons on the back of the hornworm. These are often mistaken for hornworm eggs by the gardener and subsequently destroyed. However, effort should be made to preserve these pupae, since the adult parasitoids will emerge from them to continue their beneficial activities.”

FYI - An insect that will feed inside the bodies of other insects, eventually killing them are called parasitoids.

Quote source:  
You Can Control Garden Insects  
UT Extension publication PB595

A quick tip for butterflies in the fall garden

You might think about leaving residual vegetation throughout the winter. While it may not look neat and clean, these annuals and perennials can contain overwintering butterfly pupa or larva. They also can provide seeds for many species of wildlife and spring nesting cover for some birds. (Purdue University)

For more on butterflies in the garden check out this UT publication  
Butterfly Gardening  
PB 1636

Great Spangled Fritillary (Speyeria cybele) one of many species of butterflies that hibernate in the Southern US

Less than 1/8 of an inch in size the adult wasp are harmless to humans (they do not sting).

Photo source R.J. Reynolds Tobacco Company Slide Set, R.J. Reynolds Tobacco Company, Bugwood.org - See more at:  
http://www.insectimages.org/browse/detail.cfm?imgnum=1440135#sthash.AIW9zwpq.dpuf

UGA1440135
With fall in the air and winter around the corner, now is the time to start thinking about next year.

**Bulbs, Corms, Roots and Rhizomes**

Summer blooming bulbs like caladiums, dahlias and gladioli are not frost hardy in Tennessee and should be dug up this month and stored until next spring. To store bulbs cut back the top growth and dig the bulbs prior to frost. Remove the dirt and lay the bulbs on paper to dry. Store them in paper bags with dry potting soil in cool temperatures (45-50°F). Gladioli bulbs can be stored loose in a mesh bag.

October is the last opportunity to be planting spring blooming bulbs. Some bloomers like daffodils should have already been planted because they need a longer growing season before winter. However, many can still be planted. Consider sunlight when choosing a planting site. Most bulbs need at least 4 to 6 hours of sunlight daily to develop large blooms. Good drainage should also be of concern. Select bulbs that are large, free of blemish, and have good color and weight. Planting should be done before the ground freezes in the fall. Try massing bulbs for a more natural appearance in the landscape. Planting depth for bulbs vary but the rule of thumb is 2 to 3 times as deep as the height of the bulb. Plant your bulbs too shallow and you may risk loss to frost damage.

**Lawns**

Cool season lawns, like fescues, do most of their growing in cooler temperatures. They will benefit from an application of 1 pound of Nitrogen per 1000 sq. ft. this October.

**Perennial Flowers and Vines**

Many herbaceous perennials can still be added to the garden in October. They should be planted, however, before a hard freeze to allow roots time to become established. Remember that October is typically dry in Tennessee so don’t forget to water during establishment.

Wait until spring before cutting back the tops of ornamental grasses. Many grasses will hold their seed heads and drying blades for months creating winter interest in your garden.

Many perennials are noted for their fall blooms. Garden mums typically top the list for autumn color but consider Sedums and Patrina as two alternatives to the norm. Sedum varieties Autumn Joy and Matrona are top choices for their showy blooms, succulent foliage and size (24”). Plant Sedum in sun or light shade with well-drained soil. Patrina (Patrina scabious) grows up to 4 ft. and produces bright gold blooms. These do best in full sun with well-drained soils.

**Annual Flowers and Vines**

Some annuals like pansies, violas, snapdragons and dianthus can survive mild winters in Tennessee. These can be planted in September or October and bloom to next spring. Use pine straw to give some winter protection.

Flowering cabbage and kale are slowly gaining popularity in winter gardens. These hardy annuals can be planted in the landscape in fall. After a heavy frost, when garden mums start to lose their luster, these guys can really shine. The color of flowering cabbage and kale develops when green chlorophyll begins to fade from the leaf (when temperatures drop below 50°F) and is replaced with reds, pinks and whites. Flowering cabbage has smooth leaves while flowering kale is divided into fringed-leaf and feather-leaf cultivars. All three cultivars have varieties with outstanding color.

**Vegetables and Herbs**

What are you going to do with all your leaves this fall? Good gardeners know that composting makes sense. One way that takes minimal time and helps you gain maximum benefit is to apply your leaves to the garden. A layer about 2 to 4 inches deep can be spread over your garden and tilled in this fall. As the leaves decompose they add enriching organic matter to the soil, increase aeration and help hold moisture. This method also...
limits the amount of work required when composting in bins.

Even if you don’t till in leaves to your garden you should till under your vegetable debris. Dead plants left in the garden can become reservoirs on which many common garden pests, such as the cutworm, can continue to develop or overwinter. Overseeding your garden plot with Crimson Clover, Red Clover or rye can help provide additional nitrogen and organic matter. In the spring, this covercrop can be tilled in to the soil.

UT Gardens Plant of the Month: St. John’s Wort
Submitted by Beth Willis, trials coordinator for the UT Gardens, Knoxville

Most people associate St. John’s Wort with the herbal remedy for depression, but gardeners should be aware that the ornamental varieties of St. John’s Wort will certainly chase away the blues when planted in the garden. These shrubs provide a long season of interest thanks to cheery blooms of bright yellow with distinctive numerous stamens that appear in midsummer and last into fall. The blooms are followed by attractive berries, in colors from cream to red, depending on the cultivar.

St. John’s Wort (Hypericum sp.) can be planted in full sun or part shade. Best growth occurs in full sun, but afternoon or dappled shade can help to prevent leaf burn and wilt in hot, humid climates. Well-drained soil is best as hypericums can be susceptible to root rot. Although the species will self-seed, most of the ornamental cultivars do not come true to type from seed and so are best propagated through cuttings.

St. John’s Wort makes a great backdrop for smaller plants when placed in the rear of landscape beds, or it can be integrated into a rock or woody garden. It also performs well in containers. Blooms are very attractive to bees. Once planted and established, it requires no major care. Blooms are produced on new wood, so prune in early spring if you wish to control size or shape.

Although common St. John’s Wort (H. perforatum) is considered a noxious weed in many parts of the world, numerous ornamental cultivars are available that are smaller and better-behaved. Some of the varieties available on the market include:

- **H. Hypearls series** (‘Olivia’, ‘Renu’, ‘Jacqueline’ or ‘Jessica’) – the individual cultivars in this series vary in height (from 25 inches to 36 inches) and in berry color, but all perform well in our heat. Hardy to Zone 6.
- **H. x moserianum** ‘Tricolor’ – this low-growing sub-shrub has exciting variegated foliage of pink, red, cream and green. Grows between 1- to 2-feet tall by 1.5- to 3-feet wide. Hardy to Zone 6.
- **H. frondosum** ‘Sunburst’ – the blooms on this variety can measure up to 2 inches in diameter. Hardy to Zone 5.
- **H. ‘Hidcote’** – a popular cultivar that has received the Award of Garden Merit from the Royal Horticultural Society of Great Britain. Hardy to Zone 5.
Some Garden Fun

John Formby shared these “Halloween Gardening Jokes”
From: Green Prints “The Weeders Digest” Autumn 2013, p. 33
Questions
1. What is the Vampire’s favorite flower?
2. What are Ghosts two most favorite flowers?
3. What is the Werewolf’s favorite legume?
Answers on page 3

Purposed bylaws changes

The August meeting discussion resulted in a review of the current by-laws and recommendations for updates. The purposed changes can be found at:
https://utextension.tennessee.edu/Sequatchie/Documents/Ag/svmg%20bylaws%20revised%202013%20track%20changes.pdf

This document tracks changes, a summary of changes can be found at:
https://utextension.tennessee.edu/Sequatchie/Documents/Ag/Summary%20of%20Changes%20in%20the%20Bylaws%202013.pdf

Those receiving a hard copy of the newsletter will find the summary of changes on last page.

As the year winds down do not forget to record your hours.

October 2013
Dates to Remember

- Tuesday, October 15, [FCE Fall Craft Expo](#) – educational programs available for CEUs
- Thursday, October 24, 2013, 10:00 am to Noon [Fall Floral Arrangements](#) Plateau Research & Education Center
- November 2, – Quarterly Meeting, Pikeville, First Baptist Church fellowship hall
- Tuesday, November 19, 2013, 1:00 pm - 3:00 pm [Planting Trees and Shrubs](#) Plateau Research & Education Center

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Plant of the month - pineapple sage

Pinch and sniff the leaf on any pineapple sage and you will understand why it has long been a beloved member of herb gardens. The sweet, slightly tropical scent is a good clue to its culinary uses. Commonly used to add fragrant dimensions to teas or fruit salads, you may also wish to add it to jams or jellies, or even to flavor pound cakes or shortbread cookies. This tropical essence was the plant’s best quality, since it is otherwise a rather dull member of the landscape for most of the season.


Plant it in well-drained soil, in full sun or where it may get a bit of afternoon shade. Too much shade will dull the golden color. As the weather cools in mid to late fall, the brilliant red flowers spring from the terminals, proving irresistible to hummingbirds and butterflies. The plant will mature at two to three feet tall and wide.

This salvia is native to Mexico and Guatemala, found in naturalized colonies at high elevations. Where it is winter hardy, it can become a woody sub-shrub.

Generally considered to be a zone 8 plant, pineapple sage cannot be considered perennial throughout Tennessee, but is occasionally reported surviving our milder winters. To enhance your chances of it returning, mulch it deeply, but with a light fluffy covering of leaves or straw. A heavier mulch may keep its crown too wet for survival. Should it not return, this rewarding, easily grown plant is well worth replacing.

At the UT Gardens in Jackson, a lovely mass planting can be found in the large berm just south of the turf wheel.

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More Dates to Remember

2014 Tentative calendar to be discussed at the November 2013 meeting

- February 1, 2014 Quarterly meeting Dunlap
- March 15, 2014 Vegetable Gardening Workshop
- May 3, 2014 Quarterly Meeting Dunlap
- August 5, 2014 Steak and Potato Field Day Crossville (tentative)
- August 2014 Quarterly meeting the first or second Saturday of Month (whichever is not the Yard Sale)
- August 11-16, 2014 Sequatchie County Fair
- Other dates and programs to be discussed
November
While frost may be coming, there is still much to do this gardening season.

Shrubs and trees
- It’s an ideal time to plant or transplant trees, shrubs and fruit crops. Be sure to water well and add a good 3- to 4-inch layer of mulch to new plantings.
- Check newly planted evergreen plants regularly during the winter to ensure they are getting enough water.
- Mulch existing trees and shrubs to help reduce weeds, provide insulation from freezing temperatures, and conserve moisture.

Perennials, annuals and bulbs
- Reduce peony botrytis blight and hollyhock rust by removing and disposing of all leaves and stems this fall. Roses should have all their leaves raked from beneath to prevent black spot. Dispose of plant materials in the trash, not the compost pile, to reduce the carryover of disease during the winter.
- Cut chrysanthemum and other perennials' stems back close to the ground once they have begun to die back. Leave ornamental grasses to provide winter interest until spring.
- You can continue to transplant perennials throughout the fall and winter, as long as they remain dormant.
- Winter annuals, such as pansies, violas, Dianthus chinensis, red mustard, snapdragons, ornamental cabbage and kale can still be planted. The earlier in the month, the better.
- It’s the ideal time to plant spring-flowering bulbs. Consider planting some of the minor bulbs such as winter aconite, glory of the snow, species tulips, narcissus and grape hyacinths.
- Mulch flower beds with 3 to 4 inches of good compost or fine mulch to keep soil temperature stable and prevent winter plant injury from frost heaving. As the compost or fine mulch decomposes, it will enrich your garden soil as well.

Lawn care
- It’s not too late to fertilize your cool-season fescue lawn. Use a turf fertilizer and follow label directions. The fertilizer encourages good root development and helps improve the color of the lawn.
- Keep heavy layers of leaves raked from the lawn. They should be composted.
- Alternatively, you can mow over a light layer of leaves, turning them to a mulch that adds important nutrients back to the lawn.
- November is the time for the first herbicide application if you have them in your yard. See Wild Garlic and Wild Onion for information on herbicides and rates of application.

Fruits and veggies
- As soon as leaves fall from fruit trees and berry bushes, spray for the first time with a dormant horticultural oil. Spraying helps control overwintering insects and diseases. Apply according to label instructions.

Indoor plants
- Give houseplants as much light as possible as lower light days begin.
- Stop fertilizing indoor plants until spring.
- If possible, provide houseplants with increased humidity as levels decrease due to indoor heating.
- Begin to increase the time between waterings, but do not cut back on the amount of water.
- Force bulbs indoors like narcissus, hyacinths and amaryllis for color early in the new year; start paperwhites in late November for Christmas flowering.

Some Garden Fun - the Answers
Rain Gardens for Tennessee-smart Yards

As more of the Tennessee landscape changes from forest and meadows to urban and suburban settings, more landowners need to consider installing rain gardens. University of Tennessee Extension biosystems engineer Andrea Ludwig explains why.

“The natural landscape in Tennessee is generally forest and meadows. When it rains on these landscapes, most of the rainfall is absorbed by the landscape,” Ludwig said. “When a house is built, that natural landscape is replaced with a rooftop, and often a lawn and driveway. When it rains on these surfaces, runoff occurs much faster and in greater volumes. This runoff is often referred to as stormwater. Rain gardens are one way that you can alleviate impacts of stormwater on local waterways.”

What sort of impact? As an example, Ludwig cited the average total annual rainfall for Knoxville, which is 48 inches. “This year has been a very wet year, and we have already seen 52 inches of rainfall by the first of September. This year an average Knoxville rain garden would have already diverted approximately 20,000 gallons of rooftop runoff from the storm drain and allowed the water to soak into the ground,” she said. “A single rain garden will not create a large improvement in water quality, but if every house and building used rain gardens to capture stormwater runoff, then the cumulative effect would go a long way towards sustainable, healthier communities.”

Ludwig says rain gardens can be easily incorporated into landscaping in residential and small-scale commercial areas and provide the added benefits of increasing curb appeal, raising property value and decreasing the need for costly irrigation. She notes that research has shown that when impervious surface covers 10 percent or more of the land area in a watershed, streams and rivers begin to show signs of ecological degradation.

“Rain gardens are designed to make the residential landscape mimic the natural landscape by soaking in the rainfall like the natural forest once did, restoring natural water movement and distribution in the landscape,” the expert said. “A rain garden is a planted depression in the landscape that captures runoff from rooftops or paved areas and infiltrates it into the ground. Rain gardens are installed in the pathway of runoff such that it is captured before it gets to the storm drain or creek. Rain gardens can be used in urban, suburban, and rural settings to decrease runoff and erosion.

Interested? If a rain garden seems like it would improve your property, Ludwig says before you take any other steps, you should go outside when it is raining and map out where the water falling on your property goes. “Do this by locating gutter downspouts and areas that collect and convey water away from your property,” she said. “The ideal spot for a rain garden is between the source of runoff, like a downspout or edge of a paved driveway, and where the water leaves your property, for example through a culvert or swale.”

Ludwig recommends against installing a rain garden where steep grades exist. “The slope should be less than 15 percent,” she said. “Keep rain gardens at least 10 feet away from building foundations, 20 feet away from septic systems and outside of tree drip lines and roots. Other things to consider are the location of buried utilities and how well your soil infiltrates (or soaks in) water.”

Ludwig says you can call 8-1-1 to request utilities be marked and perform a simple percolation test to ensure the soil where you want to put the rain garden can infiltrate the runoff. “If the percolation test hole drains within 36 hours, then the soils are suitable for an effective rain garden. Rain gardens will not work in soggy soils, because the water will not soak in,” she said.

For more on how you can create ecologically friendly landscapes at your home, please visit our Tennessee Smart Yards website (https://ag.tennessee.edu/tnyards).
While the following is not a gardening topic, there is some good information we all need to know in the article – Sheldon

October is Fraud and Financial Abuse Awareness Month

Dumpster divers, email and phone scam artists, as well as unethical door-to-door repair service people are all looking to make a buck (or more) off of you. Don’t be their next victim.

October is Fraud and Financial Abuse Awareness Month, and University of Tennessee Extension is a partner with the Tennessee Vulnerable Adults Coalition (TVAC), a coalition urging you to protect yourself and your loved ones against financial crimes including identity theft.

The National Adult Protective Services (NAPS) reports that the number of incidences of financial abuse of older adults has increased significantly over the past decade, but only one in 44 cases of financial abuse is ever reported. Many of the reports to NAPS involve perpetrators who are relatives or friends with the victim, although scams and frauds by strangers are common.

In a survey conducted by UT Extension and other TVAC partners during 2012, telephone scams, home improvement scams and theft of cash from a home or ATM were found to be the most prevalent economic crimes in Tennessee to which consumers fell victim.

Ann Berry, an associate professor and consumer economics specialist with UT Extension, offers these tips that can help you protect your identity and your finances:

- Do not give out your personal information over the phone, email or Internet, unless you initiated the conversation and trust the party at the other end.
- Protect your Social Security number, credit and debit card numbers, passwords and other personal identification. Never carry your Social Security card in your wallet.
- Know what is in your wallet in case it is stolen or misplaced. Carry only what you really need with you.
- Keep your financial trash clean by shredding documents with personal and account information in them.
- Check out companies with the Better Business Bureau who come door-to-door or solicit business over the phone.
- Check bank account and credit card statements closely.
- Register your phone numbers with the Do Not Call registries.
- Report any fraudulent activity to law enforcement and other appropriate agencies as soon as you become suspicious.

If you do become a victim of identity theft, Berry recommends you contact each of the three credit reporting agencies and place a fraud alert on your reports. You may contact them online at www.annualcreditreport.com. Experts recommended that you get a free copy of your credit report every year from each of the agencies. The three major credit reporting agencies and their toll-free numbers are:

- TransUnion, 800-680-7289
- Equifax, 800-525-6285
- Experian, 888-397-3742

Experts also recommend that you close accounts known to have been tampered with or opened without your permission. You should also file a police report and a report with the Federal Trade Commission at www.ftc.gov/idtheft, or call 877-438-4338.

For more resources contact your local UT Extension office or visit http://tnassetabuse.tennessee.edu or http://state.tn.us/comaging/TVAC.

Reported Hours as of October

1,907.20 hours valued at $42,225.41
In 2012 1449 hours were recorded
Executive Board Recommendation to Change the SVMG Bylaws

Minor Changes

Numerous minor changes are made that update and improve the wording and make the bylaws more consistent and easier to read.

Major Changes

Five major changes are made that are intended to make the SVMG Association more effective in implementing our mission and attaining our goals.

1. Modify Article III by defining “Master Gardener in Good Standing”. This is done by adding a new item III.B that makes it clear that good standing requires Volunteer Hours and Continuing Education Units (CEUs) must be kept up to date and SVMG Association annual dues must be paid.

2. Modify Article V to require at least four regular Executive Board meetings each year with meetings normally occurring three to five weeks in advance of the regularly scheduled Quarterly SVMG Association meetings.

3. Modify Article IV to create flexibility so that the membership elects at least one “at large” Executive Board member and at least one “representative of the most recent MG training class”. The flexibility allows the membership to elect more than one.

4. Modify Article V by incorporating a Two Year Budget Plan that authorizes the Executive Board to spend up to the budgeted amount. The budget plan is to be developed by the incoming Executive Board and voted on by the Membership at the August Meeting following the elections in May.

5. Modify Article V by incorporating a Two Year Project Review and Approval Plan that requires the Executive Board to review all SVMG Association projects and make recommendations for their continuation or termination. All approved projects must have a Project Director who may be a Certified MG, Intern or County Agent. In addition, approved projects must have a Memorandum of Understanding that clarifies the SVMG commitment for the two year period. New projects can be proposed at any time but must be reviewed by the Executive Board before being voted on at a Quarterly Business meeting. The project review and approval plan is to be developed by the incoming Executive Board and voted on by the Membership at the August Meeting following the elections in May. These changes can be implemented by inserting a new Article V.H
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What is it?
Found this bug crawling on the front door at church what is it?
I will give you one hint; it is looking for a place to spend the winter just like the Asian multi-colored lady beetles.
- Sheldon

J. C. Rains speaks at November Meeting
J. C. Rains, Extension Agent in Bledsoe County, was the speaker at the November 2013 Meeting. J. C. spoke on turf care relating his own personal experience renovating his lawn.
Other business discussed include a calendar of events for 2014 (dates are on the next page). Revisions to the By-laws passed by unanimous vote and an updated copy will be available soon.

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A program of the University of Tennessee Extension
Dates to Remember

- **Tuesday, November 19, 2013, 1:00 pm - 3:00 pm**  
  *Planting Trees and Shubs*  
  Plateau Research & Education Center

2014 dates finalized at the November 2013 meeting. There are some changes from the list sent last month

- **February 22, 2014** Quarterly meeting Pikeville, Shiitake Mushroom program for Public
- **March 15, 2014** Vegetable Gardening Workshop, Dunlap
- **May 10, 2014** Quarterly Meeting  Dunlap, Raised Beds and Rain Barrels
- **August 2, 2014** Quarterly meeting Pikeville
- **August 5, 2014** Steak and Potato Field Day Crossville (tentative)
- **Fairs dates are not finalized**

News to note

**Walnut Tree Quarantine in Morgan and Rhea counties Due to Thousand Cankers Disease** – Tennessee Department of Agriculture released the new quarantines November 6, 2013 This means that counties bordering these two will be added to the buffer regulated list. Plans are to add Polk and Sequatchie Counties to the list as well.

Thousand Cankers Disease (TCD) information can be found at [http://www.tn.gov/agriculture/regulatory/tcd.shtml](http://www.tn.gov/agriculture/regulatory/tcd.shtml)

The full news release can be found at [http://news.tn.gov/node/11641](http://news.tn.gov/node/11641)

What is it Answered

**Brown marmorated stink bug**

Typical of other stink bugs, the Brown Marmorated Stink Bug, *Halyomorpha halys*, has a *shield-shaped body* and emits a *pungent odor* when disturbed. These bugs are very active and drop from plants or fly when disturbed. The best field characteristic for adults is the white band on the antennae.

Originally, populations in Pennsylvania were limited to ornamental plants, garden crops, fruit and shade trees in suburban areas and urban landscapes (Bernon et al. 2004). Damage was observed on several ornamentals, including butterfly-bush (*Buddleia* spp), and the princess tree (*P. tomentosa*). Both *adults and nymphs* fed on the leaves of these two host plants, and leaf damage was very apparent by the end of the season (Bernon 2004). These two ornamentals may attract the stink bug as it spreads to new areas, and homeowners are likely to be the first to see this new pest. Significant damage was also reported on urban peach and pear crops. Following the first official identification of the Brown Marmorated Stink Bug, Bernon et al. (2004) found Brown Marmorated Stink Bugs on over 60 host plants. Because the bug is polyphagous, or feeding on a wide range of host plants, *almost any crop with fruit may be at risk*.

Source and more information at [http://eppserver.ag.utk.edu/invasive-species-site/brown_marmorated_stink_bug.shtml](http://eppserver.ag.utk.edu/invasive-species-site/brown_marmorated_stink_bug.shtml)
**GARDENING TIPS**

“Gardening requires lots of water - most of it in the form of perspiration.” Lou Erickson

**December**

Trees and shrubs

- Plant new trees and shrubs as long as the ground isn’t frozen.
- Make sure newly planted woody ornamentals have adequate water.
- Bring witch hazel branches indoors to force blooms.
- Enjoy cut branches of beautyberry and winterberry holly.
- Collect garden greenery for holiday decorating - Southern magnolia, Frasier fir, hemlock, evergreen or winterberry hollies, mahonia, leather leaf viburnum and/or dried flowers of hydrangea.

Perennials, Annuals and Bulbs

- Clean up and re-label perennial and herb gardens.
- Remove heavy layers of stray leaves from around perennials.
- Harvest the last of this year’s cilantro, parsley and greens.
- Remove spent annuals from window boxes and other containers and add evergreen branches or berry-laden deciduous holly branches for winter interest.

Miscellaneous

- Spread ashes from the fireplace or wood stove on garden beds.
- Empty the soil from container gardens and add to the garden beds or compost pile.
- Put gas-powered garden equipment to bed; run until out of fuel, change oil where appropriate, sharpen mower and tiller blades.
- Clean, sharpen and oil tools, oil or paint wooden handles after a light sanding.
- Keep feeding the birds

**The Great Backyard Bird Count**

The Great Backyard Bird Count is an annual four-day event that engages bird watchers of all ages in counting birds to create a real-time snapshot of where the birds are.

The Next GBBC: Feb. 14-17, 2014

This project will count toward Volunteer hours.

For more details visit http://www.birdsource.org/gbbc
November 2013 Plant of the Month: Rachel Jackson Aster
Submitted by James Newburn, assistant director, UT Gardens, Knoxville

Often for our November Plant of the Month the University of Tennessee Gardens will choose to feature an evergreen, ornamental grass or a tree or shrub known for its striking fall foliage or bark. Quite frankly, one reason is that not much is blooming in the garden at this time of year. The Rachel Jackson aster, Aster oblongifolius ‘Rachel Jackson’ (syn: Symphyotrichum oblongifolium), is an exception and an exceptional one at that.

Valued for being one of the latest blooming asters, this perennial begins blooming about mid-October (in Knoxville) and will last well into November – tolerating light frost. It has masses of beautiful bluish-purple flowers that are the exact color of the purple ‘post-it’ notes on my desk, and it is a rather robust plant that famed garden designer Ryan Gainey describes as “naturally tumbling.” In the UT Gardens, Knoxville, we have several clumps 5- to 6-years old that are easily 9 feet in diameter and about 3 feet tall. They make an impressive display. Spreading from the roots, though not too aggressively, Rachel Jackson aster can be kept in scale in smaller gardens by sharing divisions with your friends, staking and pinching or cutting plants back half way in early summer.

For Tennessee gardeners this plant can have special meaning because it was discovered in the garden of Rachel Jackson, the wife of President Andrew Jackson, at their home The Hermitage in Nashville, Tenn. Named by Gainey, Rachel Jackson aster is now available commercially, though it is somewhat hard to find as garden centers often focus on mums and pansies when showcasing fall bloomers. A little searching through catalogs and the internet should result in mail order availability though.

Hardy to zone 4, the plant should have no problem with winter temperatures during dormancy. It appears to tolerate the heat and humidity across the state just fine. This aster thrives in full sun but will tolerate partial shade, though this may result in a more leggy appearance. It also tolerates most soils, but they should be well drained to avoid rot, especially in the winter. After the plant dies back following a hard freeze, at the UT Gardens we leave the foliage for wildlife habitat. We cut it back in the spring.

For gardeners wanting a mid-fall splash of color and a touch of Tennessee history ‘Rachel Jackson’ aster just might be the plant for you.

Hours to date
As of November 6, 2013
- 2,132.75 hours valued at $47,219.09 that is equivalent to 266.5 eight hour work days
- 374 hours of Continuing Education has been reported to date
- 266 contacts face to face. Including classes, 1,051 total contacts were made for the year. (This is the number of attendees at programs and classes taught by MGs multiplied by the number of Master Gardeners speaking plus the face-to-face contacts recorded).
The Great Backyard Bird Count

The Great Backyard Bird Count is an annual four-day event that engages bird watchers of all ages in counting birds to create a real-time snapshot of where the birds are.

- The Next GBBC: Feb. 14-17, 2014
- This project will count toward Volunteer hours.
- For more details visit http://www.birdsource.org/gbbc

The Great Backyard Bird Count was featured in the December 2013 issue of National Geographic. The article summarizes the 2013 count. Out of curiosity, I looked up data in three counties that SVMG members reported in (Sequatchie, Bledsoe and Van Buren):

- 10 total reports were submitted for these counties, 5 by SVMG members
- A total of 88 species were reported in the 3 county area
- Some of the birds reported: Redhead (duck), Purple Finch, Mourning Dove, American Crow, House Sparrow, American Goldfinch, Tufted Titmouse, Dark-eyed Junco

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Gardeners should plan now for better produce, higher nutrition in 2014

Seed catalogs for the 2014 gardening season are speeding their way into gardeners’ hands, and with them come all the anticipation and promise of the growing season ahead.

As gardeners peruse plant company offerings, Dean Kopsell, a vegetable physiologist with the University of Tennessee Institute of Agriculture, has some tips to share. “First, you always want to make sure to pick the cultivars that are adapted to your region. This will give you the best plant health and yield. But after that, think of nutrition.”

Kopsell and his colleague Carl Sams, both professors in the UT Department of Plant Sciences, are evaluating the nutritional and flavor qualities of produce as well as crop production practices that can heighten them. They say providing information on the nutritional values of select varieties is an increasing trend.

“For instance, you may find varieties listed as high in lycopene, beta carotene and anthocyanin. This means they have been found to offer better nutrition than other plants in their class,” Kopsell said.

Pay attention to photos, too. “You really want to pick the plants that are the most vibrant looking or the most colorful. The reason why is that those are going to give you the most nutritious bang for the buck.” Vivid colors represent carotenoids and flavonoids in the plant’s metabolism, and that translates into enhanced nutrition for us.

The trend of enhanced nutrition is starting to be seen in some high-end grocery stores, too. Lacinato kale found in some groceries, for example, is superior in nutrition than conventional kale.

Kopsell foresees greater choices among produce in the next several years, first in grocery stores where buyers are willing to pay a 5- or 10-cent premium for better nutrition and then ultimately arriving in our neighborhood stores.

“As consumers become more knowledgeable, they’re going to start researching what are the best food choices. They’re going to be more conscious of, ‘Well, if I eat this, I’m going to get this value for my overall heath,’” Kopsell said. “I think it’s as we become more health conscious as a society, we’re going to understand that the choices that we make in our teens, 20s and 30s are going to pay dividends when we get to our 50s, our 60s and our 70s.”

Kopsell and Sams have one the few programs in the nation with the expertise and instrumentation necessary to integrate nutritional science, physiology, production and genetics.

Through their research into boosting the health values of vegetables, the researchers are working to make better choices possible for gardeners and grocers. It’s one example of how UT AgResearch, a division of the UT Institute of Agriculture, is delivering discoveries to benefit society.
December 2013 Plant of the Month: Blueberries

When thinking about blueberries (*Vaccinium* spp.), the mind often goes first to a favorite dessert or eating fresh berries from a farmers market stand. However, blueberries bring a unique combination of a beloved fruit, plus remarkable ornamental beauty. Blueberries, though underused in the landscape, are fairly easy to grow and are historically known as plants seldom bothered by pests.

*Vaccinium* is a relatively large genus of plants with representative species in several parts of the world. They range from what we often refer to as a blueberry to the tart cranberry. Americans in general are in love with the blue fruits that are likely to show up in a pancake or muffin. In fact Americans now consume three times more fresh blueberries than they did 10 years ago. Interest has been sparked, in part, because blueberries are packed with antioxidants, are low in calories and rich in vitamin C. The USDA (United States Department of Agriculture) and its partners are currently looking at blueberries for their potentially positive impacts on cardiovascular health, strong bone formation and prevention of breast cancer.

However, focusing solely on the fruit is a mistake for the home gardener. Blueberries have beautiful, often powdery blue foliage. In many locations, its foliage is nearly semi-evergreen, sometimes persisting into late November and December. In milder years, and depending on the variety, foliage can remain into the new year. When foliage becomes sparse, beautiful, often red-hued, stiff stems and branches are revealed. This can add both color and interest to the winter garden.

When choosing a blueberry, make sure to choose one that is suited to your area. Recommendations may vary depending on your specific locations and growing conditions. Many different hybrids exist which can add confusion. Varieties of blueberries are distinguished by their suitability to specific climates and their ripening season. Many blueberry varieties are best paired with another similar variety to maximize fruit set. While it is possible to have only one blueberry plant and get fruit (look for varieties that are promoted as being highly self-fertile), you will not get as many berries. Before buying one or several blueberry bushes, do your research, talk to other gardeners or your county extension office. Look for different varieties that bloom at the same time for cross-pollination. Adding groupings of blueberries with fruit that ripen at different times is a way to extend the harvest for the home gardener.

Blueberries thrive in acidic soil in sunny locations. When planting blueberries, the American Blueberry Council recommends working up a planting area approximately 2-1/2 feet in diameter and one foot deep. Remove one third to one half of the soil, and then add an equal amount of pre-moistened peat moss to the hole and mix well. If gardening in raised beds, mix equal parts peat moss with compost or planting mix and garden soil.

There is no general recommendation for spacing of blueberries; many varieties can be spaced relatively close together to form a tight hedgerow. However, try to allow adequate air circulation and leave room to pick fruit when they ripen in summer. Always plan for a plant’s ultimate mature height and width. Mulch your blueberries with a 3-inch layer of pine needles, bark mulch or even weed-free grass clippings. This will allow for good moisture conservation during the growing season.

Your first couple of years growing blueberries, you are going to feel like a child who has been told they can eat one marshmallow now, or twenty if you can wait for an hour. When adding new blueberries, it is important to give your plants time to establish. This is aided by removing all, (yes, ALL) the blooms for two springs in a row. You will harvest more fruit over a five-year period when you
make this early sacrifice. So be patient now, and enjoy more fruit later.

Blueberries have been historically pest free. It is often rated as the fruit you can grow with the least amount of inputs like chemical sprays. However, a new threat has emerged for both our home and commercially grown blueberries. The spotted wing drosophila (SWD) is an invasive pest of small fruits that has become established in Tennessee and the Mid-South. The fly lays eggs in fruits and the resulting maggot infestation causes premature fruit drop that renders the crop unsuitable for human consumption. Both conventional and organic methods are currently being studied to determine how to best control this pest. Look for reliable sources like university extension programs to keep up-to-date on control and other recommendations.

University of Tennessee Extension has a free publication for home gardeners interested in blueberries. Search for UT Extension Publication SP284-D online at http://utextension.tennessee.edu/publications. There are two main types of blueberry plants grown by home gardeners, rabbiteye and highbush. Rabbits eye are native to the southern United States, and are the most widely recommended for Tennessee gardens because they survive better in drier, warmer temperatures than highbush types. Rabbits eye can be grown without irrigation, but a mulch for moisture control is necessary. Many new hybrid varieties have also entered the market and are currently being evaluated at the UT Gardens.

2013 in review
2,257 hours reported (12/10/2013) valued at $49,961.124
January Gardening
It's really hard to get motivated to do much of anything outdoors, but there are a few tasks and chores which you should do on those days when the weather is favorable!

**Indoor house plants**
- Amaryllis bulbs are out in abundance this time of year. IF you didn't receive one for the holidays, go out and buy one. These bulbs make a beautiful show indoors, and can help to make up for the loss of color now that the holiday decorations are being put away. Put your bulbs in a bright sunny location and water lightly until growth begins. Once you see signs of growth, make sure there is ample water but don't keep it saturated. Within six weeks you should have a stunning bloom.
- Leftover poinsettias can keep their color long after the holidays are over, with just a little care. Remove the foil wraps and give them a basket or other basin to catch overflow water. Give them bright sunlight and even moisture and the colorful bracts can remain bright for months. When the color starts to fade, cut the plants back by half if they have grown leggy and treat them like a houseplant. Give them bright light and even moisture and wait for spring to move them outdoors.

**Garden Planning**
- Design and plan the spring garden space. Early planning allows time to research plants' habits and performances. Review notes and photographs from the previous year.
- On warm days, take a look at the bare bones of your garden structure. See where plants can be placed, which plants might need to be moved, and write down your thoughts and ideas for future reference when the planting season begins.
- Continue to feed the birds!
- If your winter landscape is a bit dull, consider what plants you could add to make it more interesting. Plants with berries can brighten a winter landscape, and some have interesting bark, and foliage. A great accent plant is the contorted filbert, or Harry Lauder's Walking Stick. This twisted and gnarled plant is actually most attractive without its foliage. Hollies are loaded with berries, and so are many nandinas. Nandinas also have the advantage of red winter foliage. Some sasanqua camellias are still blooming, and the Mahonia will start to bloom in a month. If you are thinking of adding to your landscape, make sure you use plants that can add interest in every season.

**Perennials, annuals, and bulbs**
- Check your seed starting supplies and get everything on hand that you are going to need.
- Start perennials, geraniums, snapdragons, sweet peas and pansies. Many other plants such as lobelia and verbena also need to be started indoors by the end of the month to be ready for spring.
- Start ordering early from mail order sources for best seed and plant selection.
- Soil moisture levels should still be good, but do pay attention, to containerized plants outdoors, which may need some extra water, especially prior to a hard freeze. Pansies and other winter annuals are blooming well, provided you planted them early enough. We usually have periods of warmer weather throughout the winter, and when we do, consider adding a little extra fertilizer to your plants. Clip off the spent flowers to keep them blooming. Pansies and violas can freeze solid, then defrost and keep blooming.
• Hopefully you have planted all of your spring bulbs by now, but if you find a bag of bulbs that didn't get planted, plant them as soon as possible. Keep in mind that all spring bulbs must go through a chilling process of a minimum of twelve weeks to be able to grow tall and give you the best results. You can't hang on to those bulbs for another year; they would dry out and be lost. If you planted early, you may have noticed the foliage emerging. For many bulbs that is normal, and you need to avoid damaging it. Keep in mind some early bulbs early crocus and daffodils can start blooming in February so their foliage should begin to appear.

Shrubs and trees
• Avoid the use of salt-based products on sidewalks and drives. Sand or cat litter provides good traction on slick spots without damage to lawn, ornamentals, or concrete.
• Take hardwood cuttings as well as from Roses.
• When the temperatures are below freezing, avoid much contact with plant material outside. Frozen plants are brittle, and limbs can be broken easily. If ice or snow is on your plants, use caution around them. Heavy loads of snow can be lightly brushed off, but stay away from ice laden plants. You can't remove the ice without breaking off branches. If you have shrubs that are subject to winter damage gardenias, etc. and temperatures are predicted well below 15-20 degrees, a light covering with sheets, blankets, etc. can help. Avoid using plastic, which can encourage more temperature fluctuations, if the sun is out.
• Watch out for newly planted trees and shrubs, and water if needed. While the temperatures are colder, plants won’t use as much water, nor will we lose it to evaporation, but some moisture may be needed if we don’t get it naturally.
• It's always better to be prepared. In the event of winter damage to your outside shrubs, don't be too quick to prune. Any broken limbs or branches should be removed as quickly as you can, but if you simply have burned foliage, leave it alone until spring. Hopefully, any damage will be superficial, and the plants will bounce back on their own. If not, the damaged foliage can serve as a buffer in the event of more winter weather. Hopefully, this information will be simply reference material, and we won't have to use it this winter season.

Fruits and veggies
• Prune Grapes.
• Prune Fruit trees and spray with Lime Sulphur and Dormant Oil to prevent insects and diseases.
• Spray Copper Spray to prevent Peach Leaf Curl.
• If you had terrible insect problems in your vegetable garden this year particularly grubs, squash vine borers, and other soil insects, tilling your garden in the winter can help to control them. Many of these insects burrow down in the ground and spend the winter in a larval stage. Tilling can bring them closer to the surface and low temperatures can help to kill them. Don’t do this if the ground is too wet, but if the soil is workable, this can help to start the season off clean.

Lawn care
• Stay off frozen grass.
• If you see greening up occurring in your warm-season lawns such as Bermuda, zoysia or St. Augustine, that means winter weeds are establishing themselves. Using a 2,4-D broadleaf weed killer, can stop them in their tracks before they get large, bloom and set seeds.
• You may not have gotten to all the fallen leaves raking can still be done this month. Shredded leaves can be added as a mulch to flower beds or even the vegetable garden.