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**SPECIAL THANKS**

The faculty and staff of the UT Gardens would like to thank the hundreds of volunteers, members, and supporters in Jackson, Crossville, and Knoxville who continue to help our UT Gardens grow.

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FROM THE DIRECTOR

By Sue Hamilton, UT Gardens Director

All greetings from your State Botanical Garden!

Inspiration! That’s what I hope our State Botanical Garden is to you and our more than 100,000 visitors throughout the year. Ever wonder where we get our inspiration to pass on to you? Through education and travel. I had the good fortune to travel this summer, which allowed me to visit some public gardens and private gardens. The result: total excitement for the many new plant introductions and creative garden design ideas I saw. And I’m not alone. Several Gardens staff members got to travel and be inspired as well. We are all anxious to implement much of that inspiration in the Gardens this fall.

In the Gardens, exposing you to some of the best and newest plants.

It’s always been important to me that we have a Travel section in our magazine to guide you to some of the best horticultural entities across the country. There’s much to be said about getting out of your own backyard to see what others are doing. Whether a public garden leader or a home gardener, we all need inspiration to keep us enthused and excited about horticulture. So, make a point to visit all three UT Gardens locations soon . . . we’re expecting you and hope to inspire you!

I appreciate and thank you for your continued support as a friend, sponsor, volunteer, and advocate of the Gardens. With your help, the Gardens continues to grow.

I hope to see you in the Gardens!

Justin Stefanski, UT Extension Area Specialist I, Central Region Office, Nashville

IN SEASON

Rhus aromatica
Fragrant Sumac

Justin Stefanski, UT Extension Area Specialist I, Central Region Office, Nashville

Fragrant sumac peaks in the fall and winter, but has features that delight throughout the year. In March and April, bare stems covered in large buds give way to an abundance of pale yellow flowers on male plants. Throughout the summer, it proudly displays its glossy foliage, which is lustrous green with hints of blue. During late summer, it really begins to show out; as clusters of small fuzzy red fruit begin to cover female plants. The crescendo of its aesthetic attractiveness occurs later in the fall, when its blue-green foliage gives way to vibrant hues of orange, red, and purple. This striking foliar display is complemented by the rips, red berries, which often persist well into the winter and serve as an important food source for birds and mammals.

In the landscape, fragrant sumac can be used as an attractive hedge or utilized as a ground cover in erosion prone areas. Plant it in a spot where it has room to spread, allowing it to gradually form a dense thicket, spreading from root suckers to create large colonies, reaching 3 to 8 feet in height. It is acid loving and has a compound trifoliate leaf which consists of three leaflets. The leaf structure is less desirable to many plants (in fact, it’s less desirable to many gardeners), but it offers a pleasant aroma when crushed or bruised, lending to its botanical name sake, Rhus aromatica.

Fragrant sumac also exhibits superb heat and drought tolerance and is virtually pest free. Two excellent cultivars are ‘Gro-Low’ and ‘Konza’. For border plantings, ‘Gro-Low’ is a suitable option due to its short height of 2 to 3 feet and width of around 6 feet. ‘Konza’ will get slightly taller, growing out around 4 feet and growing up to 6 feet wide.

Now that you have been properly acquainted with this delightful horticultural specimen, keep your eyes open for the next time you’re out hiking or walking the family farm. Better yet, try introducing this plant into your landscape and enjoy the striking visual display that it will offer each year in the fall. Happy gardening!

ON THE COVER
Acer Palmatum ‘Sango-kaku’
Photography of Alan S. Heilman, © Alan S. Heilman.

IN SEASON

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ON THE COVER
Acer Palmatum ‘Sango-kaku’
Photography of Alan S. Heilman, © Alan S. Heilman.
HENRY SHAW’S AMAZING VISION | THE MISSOURI BOTANICAL GARDEN
By Michelle Reimert, Tennessee Extension Master Gardener, Knox County

Ever a man loved a piece of ground, it was Henry Shaw. As Shaw’s fortunes grew, he resolved to return something to his adopted city, and forty years after his arrival in St. Louis from England, on the land he loved, he opened a botanical garden in 1859 for the city’s residents.

Today we know it as the Missouri Botanical Garden (MOBOT). One of the oldest botanical gardens in the US, it is considered one of the top three botanical gardens in the world as well as an oasis in the city of St. Louis. The garden is outstanding not only in the excellence of its displays, but also in the richness of its architectural heritage.

MOBOT has numerous points of interest and specialized gardens throughout its 79 acres. Horticultural displays include the tropical rainforest that thrives inside the Climatron, which is the oldest greenhouse west of the Mississippi. Tower Grove House (Henry Shaw’s original 1850 estate country home), and the administration building (Henry Shaw’s city home, which was moved piece by piece to the country estate) are among others of historic interest.

The Children’s Garden occupies nearly 2 acres, and brings botany and nineteenth century history to life. Children can venture into a limestone cave, explore wetlands, board a steamboat, climb in the tree house, or visit a Midwestern prairie village. The William T. Kemper Center for Home Gardening, the nation’s most comprehensive resource center for gardening information, includes twenty-three residential-scale demonstration gardens full of great ideas for your home garden.

The garden is one of the world’s leading centers for botanical exploration, plant science, and conservation. Some twenty-six major floras and checklists are based here, and garden botanists are active in thirty-five countries on six continents. MOBOT released a statement earlier this year that scientists at the garden had discovered over 180 new plant species in 2015, which makes up about 9 percent of the plants that were discovered that year.

It takes the better part of a day to fully explore the garden, but you could feasibly walk through it in a couple of hours. For those who cannot easily walk, or want a quick tour before exploring on their own, I’d recommend the guided tram tour, which is available during every season except winter.

For a plant collector, walking into a great garden center full of beautiful plants can conjure up the same feelings as a kid on Christmas morning, excitement builds in the pit of your stomach, eyes fly open wide—and you can’t help but squeal with joy when your eyes feast on all the beautiful plants, colors, and textures sitting right before you. And so it was on a recent visit to the Cincinnati-area Lakeview Garden Center in Fairfield, Ohio.

The nursery, previously unknown to me, came highly recommended. So when traveling through the area with friends, we thought it was worth a quick stop. But when you pull into the parking lot, any plant lover will immediately know that this is NOT going to be a quick stop! We were greeted by hundreds of colorful conifers, Japanese maples, aisles of perennials, annuals, garden ornaments, hanging baskets, beautiful pottery, bubbling fountains, ponds full of enormous water lilies and a wonderfully enthusiastic staff member named Nellie. Nellie’s advice to us when you pull into the parking lot, any plant lover will immediately know that this is NOT going to be a quick stop!

We were greeted by hundreds of colorful conifers, Japanese maples, aisles of perennials, annuals, garden ornaments, hanging baskets, beautiful pottery, bubbling fountains, ponds full of enormous water lilies and a wonderfully enthusiastic staff member named Nellie. Nellie’s advice to us upon getting out of the car was “shopping at the nursery is like shopping at TJ Maxx— if you find something you like, you’d better grab it or it will be gone!” So our plant-shopping journey began . . .

Our first stop was the miniature conifer section. There were so many unusual plants from which to choose. Our favorite score was a Sciadopitys verticillata ‘Picota’, a dwarf, conical selection of Japanese umbrella pine. This rare gem should be a real standout in any dwarf conifer garden.

From there we wandered through the perennials over to the large conifer section. The vast selection was chock-full of wonderful colors and textures—blues intermingling with gold and various shades of green and oodles of different forms and sizes: tall, short, fat, round, columnar, and weeping—all vying for our attention. The choice of rare and unusual conifers was outstanding. Our favorite score was a real beauty that is new on the market, Picea orientalis ‘Firefly’, a stunning, bright yellow oriental spruce tree that is a dwarf version of the popular ‘Skylands’ cultivar.

Moving on, we hit the tantalizing selection of trees and shrubs and had a great time chatting with the owner, Jim Montague. Jim is a passionate plantsman, and it shows in the assortment and quality of products in his 5-acre nursery. The nursery’s slogan, “where the UN-common is the common,” is certainly true! By the time we left the nursery, our vehicle was completely packed with purchases along with two plants, a Japanese maple, and a golden Korean fir that Jim so generously donated to the UT Gardens. Our excitement was palpable, and there was not room for one more plant! Jim encouraged us to visit again in early spring, when according to him, the conifer selection is even better. And visit again, we will! 
**MY FAVORITE THINGS**

**GOLD-FOLIAGED PLANTS PART V**

By Jason Reeves, UT Gardens, Jackson, Research Horticulturist

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**ILEX X ATTENUATA ‘SUNNY FOSTER’ – SUNNY FOSTER HOLLY (LEFT)**

In the South, one of the most common hollies planted over the last fifty or sixty years is Foster holly. Foster refers to several cultivars resulting from crossing two East Coast native hollies, *Ilex cassine* and *Ilex opaca* by Foster Nursery, in Bessemer, Alabama. Of the five selections, ‘Foster No. 2’, a female selection, is the most common.

Foster holly is a beautiful, narrow-leafed holly that has stood the test of time. Drive through any neighborhood in the Mid-South built in the 1960s, 1970s, and 1980s and you will find it anchoring the foundation of many homes. Most often planted much too close to the house, they’re frequently seen trimmed into a tight cone shape, limbed up with the top rounded like a mushroom or towering above the eaves of the house.

In 1964 a golden leaf mutation was found on ‘Foster No. 2’ at the US National Arboretum in Washington, DC. The sport was propagated and proved to be stable over years of evaluations. In 1982 the Arboretum released the plant as ‘Sunny Foster’.

The first time I saw ‘Sunny Foster’ was about ten years ago at the UT Arboretum in Oak Ridge. It was a cold, gloomy day, but her yellow leaves and bright red berries screamed, “Look at me!” She stands a proud 25-plus feet in the Arboretum today.

In the spring ‘Sunny Foster’s’ new leaves first appear light green but quickly intensify to butter yellow as they develop and the summer sun intensifies. The previous year’s leaves eventually mature to solid green aided by the shading of subsequent generations of new leaves. Individual leaves seem to set their own pace of change, and any patch of growth can display a full range of yellow and green shades adding to the depth of interest. The sun plays an important role in how bright the leaves are. The leaves on the north side of the plant are much less yellow as compared to the other three sides. ‘Sunny’ is a female, and if the right pollinator is present berries prolifically.

Because the foliage colors are superior on the sunniest side of the plant, thought should be given to placement in the garden. Preferably, it should be placed in the garden where you will view the south or southwestern side of it. Placing it north or northeast from your viewpoint is ideal.

Hardy to zone 6b, ‘Sunny Foster’ is slower growing than ‘Foster’, reaching 8 to 10 feet tall and a third as wide in ten years, maturing to around 30 feet tall. Best grown in rich, moist, well-drained soil, it is adaptable to a wide range of soil types and conditions as long as the soil does not stay wet.

Chosen in 2006 as the American Holly Society holly of the year, ‘Sunny Foster’ looks great used as a specimen or accent plant and is a shining light in a mixed screen planting.

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**SPIRAEA THUNBERGII ‘OGON’ – GOLDEN THUNBERG SPIREA (ABOVE)**

One of the earliest flowering of the spirea species, *Spiraea thunbergii* produces an abundance of small white flowers up and down its arching twiggy stems in March or April. However, it’s the foliage that sets ‘Ogon’ apart. Its narrow, feathery leaves emerge a bright gold shortly after it flowers, making it shine in the spring and summer sunlight. By the end of the summer the leaves age to chartreuse green before turning a muted pink and burnt orange in the fall. The colorful leaves often persist until Christmas before falling off. ‘Ogon’ produces the best summer and fall color when grown in six or more hours of sun.

It works well as a foundation plant, in borders, at the sunny edge of a woodland, and as a great shrub for billowy mass planting. Plants such as burgundy-leafed loropetalums and blue-foliaged conifers like ‘Grey Owl’ and ‘Angelica Blue’ junipers make a striking combination. With age it can reach 3 to 4 feet tall and 4 to 5 feet wide. If it becomes straggly, select pruning is best done soon after it finishes flowering in the spring. Alternatively, the entire plant can be cut back near the ground at the same time of year if total rejuvenation is desired. *Spiraea thunbergii* ‘Ogon’ is sometimes sold under the trademark name Mellow Yellow. Hardy to Zone 4.

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Have you ever wondered why so many gold plants have the cultivar name ‘Ogon’? It is simple: Ogon means gold in Japanese.
1-3: Butterfly Roundtable Discussion, part of our 2016 Classes in the Gardens Series, was the start of one of our latest additions to the Gardens in Crossville. Cumberland County Extension Master Gardener Ernie Wood led the discussion and design of this Butterfly Bed and Breakfast.

4: New to the Gardens is the 2016 Crossville Internship project called “Americana.” The Cumberland County Master Gardener Association collaborates with the UT Plateau AgResearch and Education Center to offer summer internships for ag students. The interns have the opportunity to work with UT professors, AgResearch staff, and Master Gardeners in our Gardens.

5-6: Any Cumberland County Master Gardener will attest to the ongoing maintenance it takes to keep the Gardens in shape for visitors on tours held throughout the year and for attendees of the Fall Gardeners’ Festival.

7: Held on the last Tuesday in August, the Fall Gardeners’ Festival once again drew visitors from across the state and beyond. This year’s event included gardening vendors and many educational exhibits, along with twelve outstanding presentations.

8: Fall for kindergarten children in Cumberland County means field trips to a very special KinderGarden.
1. The 2016 summer crew put on their game faces before attacking unruly garden pests! Thanks to these student workers for exhibiting great effort and attitudes. They kept the grounds in tip-top shape and helped make 2016 a successful year.

2. When the summer heat breaks, the Gardens is one of the best places to spend an evening in Jackson. The grounds are open daily and we highly recommend a sunset stroll.

3. In 2016 we planted edible ornamentals in our display gardens, and toward the end of summer it was truly a banquet in the berms. Student worker Adam Lang did much of the harvesting. We shared our fruits and veggies with volunteers and staff at the West Tennessee AgResearch and Education Center.

4. Professor Emeritus David Sams, left, and wife, Carol, are definitely a dynamic duo. This Master Gardener couple puts in countless volunteer hours at the UT Gardens, Jackson, and their combined plant knowledge is greatly valued. Here they’re “warming up” shoppers before the opening of the 2016 Summer Celebration Plant Sale.

5. A rainy start didn’t stop these visitors from trekking to the Jackson Gardens for the annual Summer Celebration Lawn and Garden Show, where they learned how to successfully combine edible plants with ornamentals in the landscape. Summer Celebration 2017 is scheduled for Thursday, July 13.

UT GARDENS, JACKSON
By Ginger Rowsey, UTIA Marketing & Communications

1. Even in the heat of an August day our staff and interns can make light work of a hot job like spreading mulch when they work together. From left, Bobby Cook, Drew Bogert, Alex Smith, and Jacob Yelton have some fun while working in the perennial beds.

2. This spring in the annual beds, California poppies made a Big Orange splash around our new sculpture.

3. Whether it’s a tree, shrub, container, or in this case an entire gazebo, we are not afraid to move things around in the Gardens. We moved this gazebo constructed by professor Don Williams’s class more than twenty years ago from our Shade Garden to our new Holly Room, where it will serve as the centerpiece for a new, rentable garden venue.

4. Students with the UT Center for Leadership and Service volunteered in the UT Gardens during the summer as part of a campus-wide service initiative. Other groups, including high school students from rural counties in UT’s Upward Bound program, also contributed service learning hours in the Gardens by helping us weed, plant, paint, and mulch. We so appreciate their efforts.

5. Mixed containers can come in all shapes and sizes—even in the form of an old wrought-iron garden bench. The succulents in this bench provided unique combinations of color, form, and texture.
The first fern I remember buying, a Japanese Holly Fern, has pointed, glossy pinnae (analogous to leaves) on arching fronds (branches) that look like holly, hence the name.

Smaller than any holly I’ve seen, sans flowers, sans berries, sans sharpish points, and with reproduction by spores, it is decidedly a fern, and hardy in every sense of the word. It is now a striking, mature plant with presence, one that always gets noticed and praised, most often by me.

Sue Olsen’s excellent Encyclopedia of Garden Ferns (Portland: Timber Press, 2007) tells us that there are around twenty species of holly ferns, which is a precious few, as ferns go. There are well over 12,000 species of ferns, worldwide. Seven hundred are profiled and pictured with the author’s detailed color close-ups, and almost a thousand are described. It is the go-to resource for the home gardener who is selecting, growing, trying to identify, or just curious about ferns.

Olsen is historian, grower, photographer, and noted authority on ferns, and not incidentally, the owner of the oldest fern nursery in the US, in Bellevue, Washington. She’s also an engaging writer. Organized in a familiar format, the book begins with introductory chapters on the history, cultivation, propagation, and anatomy of ferns. Fern structure and anatomy rudiments are essential for a plant phylum few of us ever learned or remember from freshman botany, because ferns, the oldest plants on earth, are different from other garden plants. Chapter five, “Ferns From Around the World,” is the meat of the book, 320 pages of ferns organized alphabetically by genus, and by species within each genus.

You have a Japanese Holly Fern, too? If you don’t know the genus (I certainly didn’t), or its botanical name (genus and species), look under the common name in the index to find Cryptomium (“from the Greek kyrtoma, arched or bulged”) falcatum (“from falcate or sickle-shaped”). The article on Cryptomium covers characteristics common to the genus, followed by entries for the species, alphabetically arranged with photos, AHS zones, and other particulars. Headings in the text for each species are Description, Range and Habitat, and Culture and Comments. Here Olsen, the voice of experience, provides specific, pass-along information about your plant. “While evergreen, they can, like people, look a little weary in winter...” You can hang your hat on every word.

The author’s light, informal touch and anecdotal insights are engaging. About a rambunctious, assertive Hay-Scented Fern—Thoreau’s favorite, by the way—she writes, “Rhizomes are very long-creeping going from state to state on the US East Coast.” Now there’s a thought: Plant migration routes, and an interstate system of roots and rhizomes.

In addition to eight helpful appendices—where to buy, where to see, favorite ferns for AHS zones (The twenty listed for 6b do not include the holly fern), fern societies, etc., the Glossary of about 170 terms needs a permanent bookmark. Another sample of the author’s sly wit is her inclusion of discombobulated (“... the feeling an uninitiated fern amateur might have when encountering technical terms”) in the glossary, between dimorphic and disjunct. Amen to that.

Available at local libraries, bookstores, and online, it’s an easy-reading encyclopedia with gorgeous photographs, an excellent reference for any gardener with a temperate zone fern, and a must-have for the fern enthusiast.

Also by the author is the Plant Lover’s Guide to Ferns by Richie Steffen and Sue Olsen (Timber Press, 2015).

UT Gardens Fern Sale! Don’t miss the UT Gardens “Spring Spectacular” plant sale in April 2017 which will feature selections of unique and hard-to-find hardy ferns. Information on growing hardy ferns will be available.

The sale will be held April 8, 9 a.m. to 2 p.m., and the preview sale for Gardens members will be April 7 from 4 p.m. to 7 p.m.
1. Volunteers Maria Gall and Sue Frazier plant around the Children’s Garden Hobbit hole.

2. Knoxville volunteers help to evaluate vegetable trial varieties at a tomato tasting this summer.


4. Knoxville volunteers help to plant the new wetland feature.

KNOXVILLE

The UT Gardens, Knoxville, is located just off Neyland Drive. All programs require preregistration. Contact Derrick Stowell, garden educator, at dstowell@utk.edu or 865-974-7151, or visit tiny.utk.edu/go/garden to register and read a full course description. All start times are listed in Eastern Time.

2016

Adult Workshop: Wreath Making Dec. 3, 1-3 p.m.
Cost: $25/members, $30/nonmembers

2017

Adult Class: Turn Those Winter Blues to Winter Hues Jan. 28, 1-2:10 p.m.
Cost: $15/members, $20/nonmembers

Adult Workshop: Fruit Tree Pruning Feb. 11, 9 a.m.-12:30 p.m.
Cost: $15/members, $20/nonmembers

Adult Workshop: Fairy Garden Wildcrafting March 18, 10 a.m.-noon
Bring your own container. All ages welcome.
Cost: $25/members, $35/nonmembers

Children’s Nature Discovery Garden Grand Opening Celebration & Fairy Garden Plant Sale March 26, 2 p.m.-4 p.m.

CROSSVILLE

UT Gardens, Crossville, classes and events are held at the UT Extension Cumberland County, Country Store, 1398 Livingston Road, Crossville, TN 38557. All class start times are listed in Central Time.

2016

Spring Plant Sale May 6, 7 a.m.-noon
Summer Celebration Lawn and Garden Show July 13, 9 a.m.-5 p.m.
Fall Plant Sale and Garden Lecture Series Oct. 5, 1:30-6:30 p.m.

2017

Adult Workshop: Fruit Tree Pruning Feb. 11, 9 a.m.-12:30 p.m.
Cost: $15/members, $20/nonmembers

Cooking Healthy for the Holidays Nov. 17, 10 a.m.-noon
Fee: $15
Limit: 40
Classes are now being scheduled for 2017. For more information regarding opportunities in Crossville, please visit ag.tennessee.edu/plattvaugardens or ccmga.org.

Jackson

For more information on all events, visit west.tennessee.edu or call 731-424-1643. All event start times are listed in Central Time.

2016

Cooking Healthy for the Holidays Nov. 17, 10 a.m.-noon
Fee: $10
Limit: 40

2017

Spring Spectacular Plant Sale April 8, 9 a.m.-2 p.m.
Hardy ferns are the featured plant.

Garden Discovery Camps May–July 2017
Our summer day camp schedule will be released in January. Keep watch on our Facebook page and e-newsletter to see when camp registrations will open.

UPCOMING EVENTS 2016-2017

Wild Bird Eggstravaganza April 3, 10 a.m.-2 p.m.
Cost: $6 per child

JACKSON

Travels with Andy Putte & Jason Reeves For information on their August 2017 garden tour of Scotland, visit plantisland.com.

KNOXVILLE

Beth Willis, UT Gardens, Knoxville Membership & Volunteer Coordinator

1. Volunteers Maria Gall and Sue Frazier plant around the Children’s Garden Hobbit hole.
2. Knoxville volunteers help to evaluate vegetable trial varieties at a tomato tasting this summer.
4. Knoxville volunteers help to plant the new wetland feature.
What do they say about all work and no play? At this very special ice cream social, many Tennessee Extension Master Gardener volunteers get to unwind and enjoy a day off in the relaxing atmosphere of good fellowship and good ice cream with all the fixings. In the “cool, cool, cool” of the evening before our Fall Gardeners’ Festival, when the weeds are pulled and the tents erected, it’s great to gather in anticipation of the next day’s activities. We take this occasion to discuss past victories and future hopes for the Gardens and for implementing upcoming expectations. On this particular evening, it was such a nice surprise to arrive early and be greeted by the sight of neighbor James Miller and his antique tractor using the PTO to churn fresh, homemade ice cream. Now that’s real country living!

This event is a work together/play together break in the normal routine that we all enjoy. It began when too many plants—all in need of immediate planting—arrived at the UT Plateau AgResearch and Education Center. Walt Hitch, director of the Center, asked our Master Gardener association if we’d pitch in. Enough eager beaver Master Gardeners showed up to get the job done, and from then on it’s been a happy routine of helping each other. Walt has always made this local group feel appreciated with his innovative involvement. He immediately saw an opportunity to reward the members who did the maintenance work in the Gardens and to encourage those who hadn’t yet gotten the nudge to become involved.

Of the hundreds of acres that comprise the AgResearch Center, the local association has been welcomed to take over several acres and maintain plots with varying horticultural themes. We presently have a very large pavilion under construction, which will be used as an outdoor classroom. Goodwill and energy abound. Thanks, UT Institute of Agriculture, for bringing us together!

There are weeds to be pulled; piles of mulch to be spread; plants to be potted, watered, labeled, or pruned. It’s easy for tasks to start stacking up at the Gardens. Fortunately, we have a group of volunteers at the UT Gardens, Jackson, who are seemingly always ready when we need some help. They show up early. They stay late. They’re never afraid to get dirty. No job is too big, and perhaps more importantly, no job is too small. Our volunteers never question the mundane tasks, knowing these are the chores that contribute to the overall success. Instead, they dig in cheerfully.

At no time are volunteers more critically needed than during Summer Celebration preparation. This event attracts thousands of people, thanks in large part to our Master Gardener plant sale. Each year we move roughly 5,000 plants at this sale. All of these plants must be labeled, priced, groomed, and loaded on trailers to transport to the sale site. A successful plant sale would be impossible without the help of many, many volunteers. We are certainly fortunate to work alongside gardeners who give so generously of their time (not to mention their knees and backs). Thank you, volunteers, for making the UT Gardens, Jackson, a better place!
Humans have long valued sassafras as a flavoring and tonic. It was once so popular that special tea houses in Europe featured sassafras teas as a restorative, and it was transported back to Europe in large quantities.

In fact, the colonists were at one time required to annually ship a certain number of tons to England as a sort of tax. While it is widely held that roots are best, leaves and twigs also yield a tasty tea. You should be made aware that too much sassafras can be carcinogenic if consumed frequently and in large quantities.

Another impressive quality of sassafras is the durability of the wood with natural resistance to insects and decay. While rummaging in some dusty drawers when I was at Mississippi State, I found an old extension publication that compared various woods for longevity as fence posts. Interestingly, sassafras was rated equal to eastern red cedar.

Sassafras also has high value for wildlife. Many types of butterfly caterpillars feed on the foliage, notably the spicebush swallowtail. Birds eagerly eat the fruit on the female. Sassafras is dioecious, meaning there are separate male and female trees. It is worth looking for the fruit in late summer and early fall just to admire its beauty. Imagine a dark blue egg about the size of a child’s fingernail standing on a long bright red stem shaped like a chalice.

If you don’t want to let the wild things have all the good eatin’, you can dry the leaves and grind them into a fine powder to add to seafood gumbo. This is the famous file, as in “Jambalaya,” crawfish pie, filé gumbo,” in the Cajun “me-oh my-oh” song. It thickens the broth and adds a spicy essence.

Sassafras isn’t the best tree for the small landscape, as it spreads by root suckers and can become an extensive sassafras colony. If you have the space, it is a beautiful addition to the landscape. The comely coarse foliage drifts across the mature tree in pleasing layered strata, but the real show begins in the fall when sassafras displays autumn hues of pure yellow, deep red, and possibly the most brilliant orange of any tree in the wild landscape.

The spring flowers are small but clustered, and the males seem especially bright, bristling with numerous stamens. Imagine diminutive lemon yellow fireworks.

There are many ways to recognize the plant. In leaf, the juvenile growth will often display three distinctive leaf shapes on the same branch. One leaf is shaped like a mitten, that is with the main leaf lobe offset with a smaller lobe—the “thumb”? Another leaf might have two “thumbs,” and the third shape of leaf will have no “thumbs” at all. Often mature trees have only leaves with no thumbs, but no worries. The easiest way to identify this tree is to simply scrape a twig with your fingernail and sniff. That spicy sassafras aroma is a dead giveaway.

When leaves are absent, the twigs are quite green and have a characteristic branching pattern, easy to spot against the wintry sky.
A bout a year ago, I experienced a horticulture identity crisis. In hindsight, I see it was microgreens that helped me turn the corner.

My personal history with plants always had been connected with wide open spaces. From the farm kid vegetable garden years to the production greenhouses and research farms of my college years, space and soil were never in short supply. At my previous house, I had more to mow, trim, weed, and landscape than was possible. Goats were occasionally put forth as a solution by those who frowned upon my late night lawn mowing. Yet, I now found myself in Knoxville with the amazing opportunity to research and write and speak about residential horticulture, but with no site or soil in which to actually practice it—only a south-facing balcony.

Enter microgreens. What better way to battle balcony blues than by growing short-term, high-population vegetables in trays?

Microgreens, the edible shoots of a range of vegetable crops, provide a visual and sensory spark to many dishes and salads. Unlike sprouts, where the seeds and young roots are also eaten, microgreens are only shoots and young leaves. Some of the most common are in the brassica family, including broccoli, arugula, kale, cabbage, and bok choy. Many herbs, such as basil and cilantro, are great picks for growing, although they can take a few more days to reach harvestable size. These crops can produce a nearly endless array of leaf shapes, colors, textures, and flavors. For milder flavors, broccoli, kale, or lettuce are great places to start. Arugula provides a bit more flavor, and you can’t beat the earthy taste and fabulous colors of bull’s blood beets or rainbow Swiss chard.

The premise is to seed closely to produce tiny, edible shoots over one to three weeks. A simple way to begin is to use seedling flats or pint-sized fruit containers with an inch or two of germination mix. A well-drained, sterile substrate is essential, and often these mixes have a bit of fertilizer to keep your microgreens going. Most of the small seeds are scattered by hand—try to keep the seeds from touching—and watered in without covering. Only the larger or harder seeded crops like peas, chard, cilantro, and sunflower need to be covered, often after soaking in water for a few hours. For limited spaces, there are distinct advantages to these tiny crops. Since they are not grown to maturity, they can be produced quickly, and light needs are generally not as high as for more mature crops. Many microgreens can be grown in well-lit indoor locations in the summer. Extra light may be needed in the winter if you don’t have access to a greenhouse or sunroom. It is best to water from the bottom to keep the tiny forest of flavor healthy, and air movement is essential to prevent disease. Harvest time depends on the growth rate as well as taste and production preference. Sometimes young shoots are harvested when only seed leaves (or cotyledons) are present, but many microgreens are harvested soon after true leaves appear. Harvesting is done by hand with small clippers or kitchen shears as close to the substrate as possible without picking up particles. Gently wash and eat fresh or store for a few days in the refrigerator.

I am currently considering the purchase of a residence with real soil attached, and fully anticipate firing up my mowers and shoveling a bit now and then. However, I am confident there will be some microgreens nearby because there is now no substitute for these tiny, tasty plants in my horticultural or actual diet!
TENNESSEE GARDENING LEGENDS

MARGIE HUNTER
NATIVE PLANTS EXPERT
By Margot L. Emery, UTIA Marketing & Communications

Tom Post of the University of Tennessee Press keeps a well-thumbed copy of Margie Hunter’s authoritative Gardening with the Native Plants of Tennessee: The Spirit of Place at home.

Post says, “I use it when I’m looking through plant catalogs or preparing to choose plants at a sale. It’s really just an inspiration to me.” As a publisher, he keeps his eye on books on the market. Even though Hunter’s guide came out in 2002, he says, “There’s still nothing really close to this on gardening with native plants with focus on Tennessee.”

And no wonder. Six years in the making, Hunter’s book is 356 pages long, chock-full of color photographs, and lays a foundation of knowledge about Tennessee’s differing geology, soil, and climate: ways to attract wildlife; the rare (our endangered native plants); and the rowdy (exotic past plants). Only after those fundamentals are in place, does she address the elements of native plant gardening and introduce the plants themselves.

Her criteria for inclusion in the volume were plants that grow well with a wide distribution; are attractive and will behave in the garden; and were available commercially. In the years since the book came out, Hunter has added additional native plant discoveries at her website, gardeningwithnativeplants.com.

To Hunter, a native Tennessean herself, using our state’s native plants not only is a way to connect to, and restore, nature, but also a link to our distinctive history.

“If you could have walked through here in 1750, what would it have been like? It’s a fascinating exploration to learn what makes up the state of Tennessee. Contemplating our history, or thinking environmentally, to understand how all the different components of natural history—the wildlife, the native plants, the environment itself—function as a whole is very important to how this planet functions and key to our survival.”

Hunter encourages people to use native plants in their yard and to see themselves as part of that whole.

“As a gardener, to me anyway, the more you can be true to an area, to what I termed in my book ‘the spirit of place,’ the easier everything becomes. It’s much more satisfying to put something together that works as it is supposed to in nature serving wildlife, not simply something that looks good. Since I began putting more native plants in my yard, I’ve been amazed at the variety of insects, birds, and even reptiles that I see.

In using native plants, Hunter says, “you are helping to recreate or restore something that was here long before we were, and there are beautiful and wonderful discoveries daily to share with friends, neighbors, children, and grandchildren. It’s taking the nice hobby of gardening and turning it into a healthy, fulfilling, and spiritual connection to the land. And that’s a remarkable thing.”

The University of Tennessee Press is offering Cultivate readers a 25 percent discount on Margie Hunter’s book, Gardening with the Native Plants of Tennessee: The Spirit of Place. Visit utpress.org/native-plants.
ITALIAN BROCCOLI CASSEROLE & HERB STICKS

By Margot L. Emery, UTIA Marketing and Communications

ITALIAN BROCCOLI CASSEROLE

YIELD: 6 to 8 servings.

2 (10-ounce) packages frozen cut broccoli
2 eggs, beaten
1 (10 ½-ounce) can condensed cheddar cheese soup
½ teaspoon dried oregano
1 (14 ½-ounce) can Italian-style stewed tomatoes
3 tablespoons Parmesan cheese

Cook broccoli in unsalted boiling water for 5 to 7 minutes. Drain well.
Combine egg, soup, and oregano in a bowl. Stir in broccoli and tomatoes.
Pour mixture into a baking dish. (It nicely fills an 11 x 7-inch.) Sprinkle cheese over the top.
Bake uncovered at 350 degrees for 30 minutes.

HERB STICKS

1 (8-count) package day-old hot dog buns
2 sticks margarine, softened
1 teaspoon dried rosemary
1 teaspoon dried thyme
1 teaspoon dried parsley
1 teaspoon lemon zest
Garlic powder (optional)

Cut off round ends of each bun and split in half. Cut each piece lengthwise for a total of 32 breadsticks.

Combine margarine and remaining 5 ingredients. Spread mixture over each breadstick.
Place on a baking sheet. Bake at 300 degrees for 30 minutes or until baked to desired crispness.
Serve with a green salad and herbal tea.

YIELD: 32 breadsticks.

PLANTING SEEDS

By Lauren Vath, UTIA Office of Advancement

Angela Nystrom is not only a Tennessee Extension Master Gardener-in-training in Knoxville, she is also a lawyer and director of specialty programs at the UT Institute of Agriculture. For her, the most impactful gift is the one she helps facilitate—a planned gift. Here she answers some common questions about planting seeds and growing gifts.

FIRST, WHAT IS PLANNED GIVING?

Simply put, it is a gift that you plan for today but give at a later time. It is usually included in your will. Making a planned gift usually requires the assistance of our development professionals and/or a knowledgeable advisor such as an attorney, financial planner, or CPA to help structure the gift. We want to be sure that you are receiving the tax benefits to which you may be entitled while accomplishing your family and charitable goals.

WHY IS PLANNED GIVING IMPORTANT?

By making a planned gift, you can continue to help organizations that are meaningful to you even after you are gone. Planned gifts often allow you to make a larger charitable gift than you ever thought possible. When people think about planned giving, they usually think about gifts under wills—but there are so many other options. Our office can assist you in making a gift that can increase your current income, provide for your spouse or other loved ones, realize tax savings, and leave a legacy for future generations.

HOW CAN A PLANNED GIFT MAKE A DIFFERENCE AT THE UT GARDENS?

There is an old Greek proverb “A society grows great when men plant trees under whose shade they shall never sit.” We are all beneficiaries of the contributions, generosity, and support of someone besides us. The UT Gardens is truly a treasure to Tennessee and the surrounding area. Your planned gift will assist us in continuing to do research, as well as offering educational programs that benefit people of all ages.

I CANNOT MAKE A LARGE GIFT TODAY, BUT I WOULD LIKE TO INCLUDE THE UT GARDENS IN MY WILL. DO I NEED TO HIRE A LAWYER TO DO SO?

Not necessarily. I always tell people who are contemplating a planned gift to contact our office before they see their lawyer or financial advisor. While we cannot give legal or financial advice, we can discuss your charitable goals, provide information, and make recommendations to you based on your assets. We can also provide you with tools to assist you in compiling your financial information before you speak with your advisor.

WHAT HAPPENS TO MY MONEY IF I DON’T CREATE A WILL?

I like to say, “If you haven’t written a will, your state has written one for you. It’s called the ‘intestacy statute.’ And it may not function the way you think it does.” There is a common misconception about how the statute works.

When I first graduated from law school, I remember suggesting to my dad that he needed to consider doing some estate planning. He told me that he did not need to because everything he had would go to my mother. I had to tell him that was not the case in Tennessee: For assets in his name alone with no beneficiary designation, our mother would get one-third, and the children would divide the remaining two-thirds. I always remind people that they would much rather determine what happens to their money than to have the state determine it.

For more information, please contact Angela Nystrom in the UTIA Office of Planned Giving. She can be reached by phone at 865-974-7423 or by email at anystrom@tennessee.edu. Just for reaching out and providing us with your contact information, you can receive a free packet of forget-me-not seeds.
The UT Gardens is busy at work trialing new plants, helping consumers differentiate between plants that are truly improvements and plants that are just simply new.

This year I planted a Straight-8 cucumber in my vegetable garden, a plant that has been a home garden favorite for years. In fact, it was an All-America Selections (AAS) vegetable award winner in 1935. Founded in 1932, AAS is the oldest plant trialing organization in the country and includes a network of trial gardens across the US. This is designed to provide unbiased information to help the industry and homeowners know what grows best in different regions of the country.

Public gardens should be one of the first places homeowners and green industry professionals go to seek out information on new plants. The University of Tennessee Gardens, for example, is a major trialing grounds for plants that may—or may not—find their way onto retail garden center racks. The UT Gardens, Knoxville, has been an AAS trial garden since 1983 and has seen many current garden favorites pass through its garden beds before they were well known.

In 2016, the AAS trial program included forty-five seed grown ornamentals, twenty-eight edibles (vegetables), twenty-four herbaceous perennials, and eighteen vegetatively grown ornamentals. UT Gardens has previously had more focus on seed grown ornamentals but has expanded its program to include all of the AAS trial categories. Vegetable trials in Knoxville are headed up by Natalie Bumgarner, a UT Extension specialist and assistant professor. “Carrying out All-America Selection trials provides a great opportunity to stay engaged with new crops and observe and share emerging trends in the consumer vegetable market. For home gardeners, there is a strong focus on novelty to provide crops with traits distinct from those currently on the market. However, through trials, our goal is to evaluate durability and performance in the garden because novelty drives year-one purchases, but performance keeps cultivars on the market,” says Bumgarner.

At the UT Gardens, Jackson, garden research horticulturist Jason Reeves displays AAS winners and recently has been impressed with many of the vegetables in the program. “Over the last few years the number of vegetable winners jumped by leaps and bounds, keeping up with the public’s desire to grow more of their own produce. In the last three years, thirty-seven out of forty-eight AAS winner were vegetables. The 2016 winner Chef’s Choice Green tomato has been a big hit by our tasters. Its tangy sweet flavor has just about everyone who has tried it wanting more.”

James Newburn, assistant Gardens director, heads up trial programs in Knoxville and is excited about AAS new perennial trials. “One of the most exciting developments in many years to the AAS testing program is the initiation of perennial trials. This three-year testing program will facilitate in bringing breeder innovations in perennial flowers to the market and home gardener. Improvements in blooming season length, growth habit, and color selection will help, I think, push perennials to the forefront over the next few years. We at UT are excited to be a part of the inaugural group of test gardens in this limited site trial.”

Trial information is already starting to arrive to give growers and consumers information for 2017. For example, a pea named ‘Patio Pride’ has now been listed as a southeast regional winner. This is a pea that homeowners can grow in containers and harvest at around forty days. In the meantime, UT Gardens staff is busy at work caring for and evaluating dozens of varieties as we try to determine the best growers across the state. For more information on All-America Selections and to keep up to date on winners, visit all-americaselections.org.
This July, thousands flocked to the UT Gardens, Jackson, for the annual Summer Celebration Lawn and Garden Show. The educational event covers a variety of topics for new and seasoned gardeners alike. From cooking displays to the latest plant research, visitors come away with a better understanding of best practices in the garden world. Next year’s celebration is already set for Thursday, July 13, 2017.

We are thankful for our supporters and the many ways they help us to provide education, research, and beauty through our sites across Tennessee. Visit tiny.utk.edu/utgardenssupporters to become a member or contribute online.
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