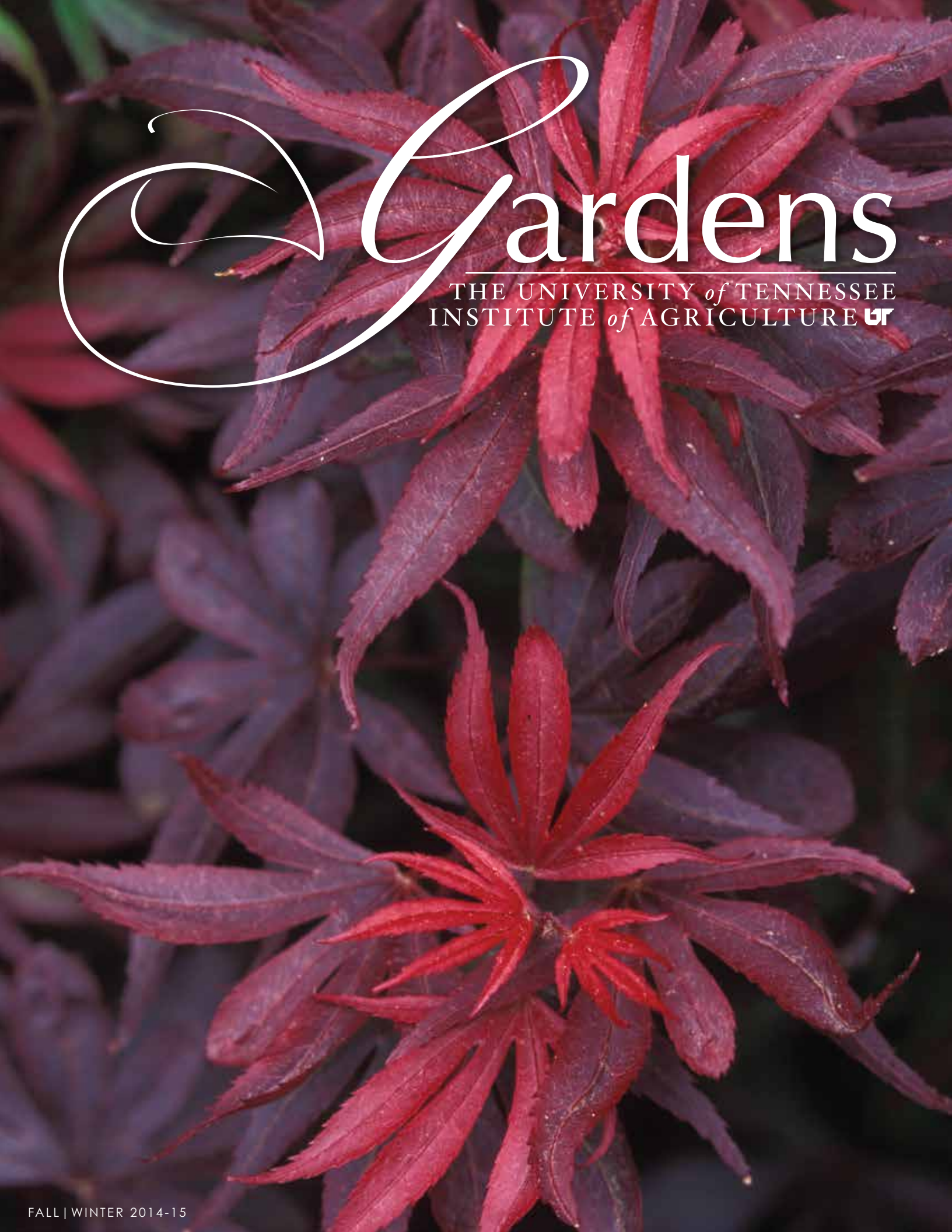




Gardens

THE UNIVERSITY *of* TENNESSEE
INSTITUTE *of* AGRICULTURE 

The UT Gardens includes plant collections located in Knoxville, Jackson, and Crossville. Designated as the official botanical garden for the state of Tennessee, the collections are part of the UT Institute of Agriculture. The mission of the UT Gardens is to foster appreciation, education, and stewardship of plants through garden displays, educational programs, and research trials. The Gardens are open during all seasons and free to the public.

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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.

utgardens.tennessee.edu
west.tennessee.edu/ornamentals
plateau.tennessee.edu

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CONTENTS

FALL | WINTER 2014-15



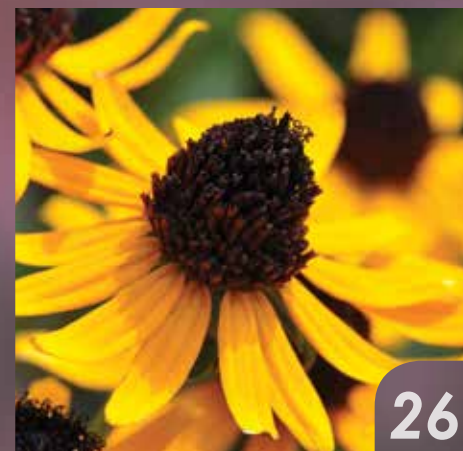
6



8



22



26

STORIES

3 FROM THE DIRECTOR

4 PLANT NERD PARADISE

6 MY FAVORITE THINGS

8 IN THE GARDENS

12 BOOK REVIEW

13 EVENT & EDUCATION
CALENDAR

17 VOLUNTEER AND
MEMBERSHIP TIDBITS

18 DECK THE HALLS WITH BOUGHS
OF HOLLY

20 MYSTERIOUS MOSS

22 SEVEN SHRUBS I CAN'T GET
THROUGH WINTER WITHOUT

24 TENNESSEE GARDENING
LEGENDS

26 A TEACHING GARDEN IN
BLOOM

28 ITALIAN-STUFFED CHICKEN
BREASTS

29 PUBLIX SUPER MARKETS
CHARITIES CONTRIBUTES TO
GARDEN EDUCATION
PROGRAMS

30 FRIENDS OF THE GARDENS



ON THE COVER

Japanese maple; Shaina [*Acer palmatum_0028*] - The Botanical Photography of Alan S. Heilman, Copyright Alan S. Heilman, Copyright The University of Tennessee Libraries, 2011.

FROM THE DIRECTOR

GREETINGS FROM THE STATE BOTANICAL GARDEN OF TENNESSEE!



I think you'll enjoy this edition of the UT Gardens magazine, which is chock-full of great horticultural information. My goal has been to produce a magazine that provides ideas and inspirations for planning garden travel, cooking with herbs, choosing gardening books, and finding the best plants for our region, all while providing updates about your state botanical garden. You'll also find our program calendar filled with great events, educational programs, and workshops for each of the Gardens sites across the state.

Some exciting news that I'm pleased to share is that the UT Gardens was recently listed among the top university gardens around the world! Best Masters Programs, an online guide that helps students identify master's degree programs that suit their goals, has published a list of the fifty most stunning university gardens and arboreta. The list includes famous gardens from across the globe, from California to Copenhagen, and the UT Gardens made the grade at number forty-six. The guide highlighted the UT Gardens' status as the official state botanical garden of Tennessee and

an official All-American test site. It also highlighted the evaluation research from the Gardens' three sites in Knoxville, Jackson, and Crossville that is used in selecting commercial plants and seeds for market.

The Knoxville Gardens had a successful Gala and Blooms Days this past spring. Both events showcased the beauty of the Gardens and raised significant funds to help us continue our mission. In addition to those successes, several projects currently are underway with spring dedications and grand openings being planned. Our Children's Garden treehouse, "The Nest," designed by Sanders Pace Architecture, is being built by our staff and two amazing garden volunteers, retired engineers Dan Steinhoff and Bill Stricklin. We also are close to completion of the first construction phase of our new hosta garden. More than 750 hostas and companion plants given to us from the private collection of Cornelia Holland, a hosta enthusiast from Franklin, Tennessee, have been planted in this new garden. Irrigation, electricity, boulders, and pathways have been installed with construction of a pergola to begin soon. A special thank you to both the East and Middle Tennessee Hosta Societies for providing funds to support the construction of this garden.

In Crossville, the Fall Gardeners' Festival in August attracted 765 visitors from forty-two Tennessee counties! The Crossville Gardens continues to expand with the addition of a new herb bed designed and planted by the UT Extension Cumberland County Master Gardener class of 2014. You'll also find that a new daylily display has been started and that the turf variety demonstration has been expanded to include six turf selections, two of which are warm season and four cool season.

The UT Gardens in Jackson had a busy spring and summer as well. A new panic hydrangea (*Hydrangea paniculata*) collection has been added to demonstrate the overall performance, growth, and flowering differences in the abundant new

selections of this sun-loving hydrangea. Bottle art has been the theme throughout the Jackson Gardens this year. More than 6,000 wine bottles were repurposed into whimsical and beautiful garden accent pieces such as dragonflies, flowers, peacocks, and a dramatic bottle wall that contains just over 1,000 bottles! Horticulturist Jason Reeves is the mastermind behind the bottle theme, and he plans to add to the display next year. The Summer Celebration field day featured famed horticulturist Feldor Rushing and attracted 2,500 visitors. The Fall Pumpkin Display continues to draw thousands of visitors, and the Autumn Fest (fall plant sale garden lectures by Hayes Jackson) was a big success.

Finally, membership and financial support for the Gardens continue to grow. We are 800 members strong and have 3,300 subscribers to our monthly e-newsletter. As you can imagine, it takes a lot of people and funding to keep a public garden operating.

I appreciate and thank you for your continued support as a friend, sponsor, volunteer, and advocate of the Gardens. Because of you, we will continue to grow! I hope to see you in the Gardens!

A handwritten signature in dark ink, appearing to read "Sue".

Sue Hamilton
Director, UT Gardens

A large, stylized, light-colored "P.S." logo.

Be on the lookout
for a fresh, new
UT Gardens logo.
You'll see it in our
next issue!



PLANT NERD PARADISE

By Carol Reese, UT Extension Western Region ornamental horticulture specialist

Photos by Carol Reese



The displays found at Juniper Level Botanic Gardens would make any true plant nerd think they had died and gone to heaven. This incredible collection of over 21,000 taxa found near Raleigh, North Carolina, is the result of decades of obsessive searching by Tony Avent, founder and CEO of the prodigious mail order catalog Plant Delights Nursery, Inc.

If you have ever drooled over the contents of this catalog or the offerings found on the extensive website, you have some idea of what you will find at the gardens. Tony's focus is on rare and unusual perennials, but he also carries a smattering of wondrous woodyies. Smattering may be misleading; for example, there are seventy-eight clones of the evergreen shrub *Aucuba* in the gardens, but he offers just eight of them currently in the catalog. Let's put smattering in the proper context, as the hellebore collections include fifteen species and 558 clones. Several dozen of those hellebores are offered in the catalog, and the selections change as new introductions become available.

Does it sound overwhelming? It can be, if you are trying to drink it in all at once, which would be not only ill-advised but impossible. It would take several trips at different times of the year to gain a true appreciation of the collections.

The garden's design helps to avoid bombarding the visitor with too many plants at once. It has several different areas, crafted to create the best environment for particular plant communities. For example, the Southwest Garden Berm was constructed for plants that prefer full sun and perfect drainage, while the Filtration Bog houses the plants that like their feet kept cool and damp, while simultaneously filtering the water before it gets to the pond used for irrigation. There are many other designated areas

Top:

Expect to find strange bedfellows in the gardens at Juniper Level, such as conifers beside hardy tropicals.

Middle:

Hardy plants adapted to hot sun and dry soil are featured on this sweeping path.

Bottom Left:

Many new elephant ears are offered at Plant Delights Nursery. Pictured is 'Blue Hawaii'.

Bottom Right:

The icy blue foliage of whale's tongue agave creates the focal point in this vignette.

for particular groups, such as the hardy tropicals, the rock garden plants, and the shade-loving perennials, just to name a few.

Masses of woody plants are often used as informal "walls" to separate these areas, and to enhance the sense of transition when entering a different part of the garden.

Each of these areas is further broken up into smaller beds defined by the many meandering paths. As you round each curve, you are presented with a wonderful vignette of plants, carefully selected and placed to complement each other. A frothy fern might be contrasted with the boldest of heucheras, and backed by the arching stems of an improbably tall form of Solomon's seal. A brilliant golden aralia might be bordered by a rich burgundy ninebark, and skirted with flowing sedges. These artful compositions help to ensure that the more subtle plants don't go unnoticed, since you are only shown a few at a time.

The occasional formal element adds just enough sense of order. It might be the grand allée of golden dawn redwoods that directs you to the rear of the gardens, or the occasional boxwood that stands at attention over a sprawling plant. The strong lines of the paths themselves add the discipline needed to keep visitors from feeling they might flounder and lose themselves amidst the plenty.

Tony has traveled this continent and the globe to assemble the collections, and he uses the garden to assess plant performance and to make sure it is not going to become the next kudzu. Visitors help him determine if a plant has enough sex appeal to make it into the catalog before he puts forth the effort to propagate it in numbers.

To visit this incredible garden, you are advised to check out the website and plan your trip around one of the Open Garden and Nursery Days. On those days, you can also shop on-site, and be sure to plan plenty of time. There are



Plant Delights CEO Tony Avent explains his theories about testing plants out of their comfort zones.

usually about 1,600 different perennials offered. You might find it less confusing if you will write down the names (they are well labeled) or take pictures of the plants you admired during your tour, and ask the staff if it is available. Also, look through the catalog online before you go, since it may not be the time of year for a desirable plant to be hitting its glory during your visit.

Garden tours for groups can be arranged in advance, and there are also educational opportunities, for example, plant propagation or garden photography.

A couple of years ago, friends of mine in the Raleigh area told me they were not sure they had time to make it to Plant Delights, as they had several other gardens to visit on their list. I begged them to delete one or more of the other gardens, heartsick that they would miss one of the most astounding collections of plants in the country. Later, they called to thank me, laughing with amazement and pleasure at the experience. It is not to be missed.



Hydrangea quercifolia 'Little Honey' – Oakleaf Hydrangea

My FAVORITE THINGS

Gold-Foliaged Plants, Part I

By Jason Reeves, UT Gardens, Jackson, research horticulturist

Photos by Jason Reeves

I love gold-foliaged plants and can't imagine my garden without them. They are like the right piece of jewelry to add "bling" to a little black dress, catching your eye and brightening up what might come off as dull. That said, they go a long way in the garden. A splash here and there carries the eye through the landscape. Too much overpowers surrounding plants and overstimulates the senses. In this series of "My Favorite Things," I will cover dependable gold-foliaged plants that will add pizzazz to most any garden.

Jasminum officinale 'Frojas' (Fiona Sunrise) – Fiona Sunrise Jasmine

This superb form of hardy jasmine boasts radiant gold foliage that holds beautifully in full sun or part shade even in our hot, humid summers. While it does produce lightly scented white flowers, its foliage and gold winter stem color are its claim to fame. This jasmine is a rambling vine and needs some aid to climb. It is easily woven on a trellis or looks great scrambling through purple foliage plants like loropetalum or smoke tree. It also can be used as an informal ground cover or sited spilling over a retaining wall. At my home, I grow it on the corner of a large pergola with Clematis 'Rooguchi', where the brilliance of its gold foliage contrasts with the vivid blue-purple clematis flowers. It can eventually reach 15 feet. Hardy to zone (6b) 7.



Illicium parviflorum 'Florida Sunshine' – Small Anisetree

Native to the southeastern U.S., small anise tree *Illicium parviflorum* has always been one of my go-to evergreen shrubs for shade. The 3-inch leaves add a dependable medium green to the garden in the summer, and more importantly, during the winter months.

When I first came across 'Florida Sunshine' five years ago, I could hardly believe my eyes. I am a fool for golden plants, but an evergreen gold plant that will brighten up a shady spot is especially coveted. I added the plant to the UT Gardens, Jackson, and it has become one of the most asked about plants in the garden. The chartreuse foliage in the spring and summer brightens to brilliant screaming yellow in the fall. During the winter, the leaves become somewhat muted while the upper stems take on a red cast, contrasting brilliantly with its foliage.

Although 'Florida Sunshine' will grow in full sun, it looks its best when grown in morning sun and afternoon shade. When crushed, its deer-proof leaves smell of sweet licorice. The creamy white flowers appear in late spring and are small and seldom noticed. It is best grown in average to moist soil. Its mature size is unknown, but the original plant in Tony Avent's garden reached 5 feet tall and 3 feet wide in seven years. Use it to brighten borders, foundation plantings, winter containers, and the woodland garden.

Hydrangea quercifolia 'Little Honey' – Oakleaf Hydrangea

Oakleaf hydrangeas have always been one of my favorite flowering shrubs, but when the cultivar 'Little Honey' became available, it went straight to the top of my list.

In April, its new foliage emerges a luminescent yellow and ages to chartreuse by midsummer. The small, 5- to 6-inch, white, cone-shaped panicles are at their best in mid-June and are nondescript compared to other oakleaves, but the foliage makes up for them. In the fall, the foliage turns a beautiful mix of yellow, pink, and orange tones 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 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 red brick, really makes it glow. Most literature and labels state 'Little Honey' will reach 4 feet tall and wide, but the seven-year-old plant at the UT Gardens, Jackson, is 6 feet tall and 5 feet wide. Several others of equal size are known in the region, another example of 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 oakleaves, so don't give up if your first attempt doesn't impress. Hardy to zone 5.

Juniperus conferta 'All Gold' – Shore Juniper

I have to admit I was never a big fan of shore juniper until I discovered the cultivar 'All Gold'. Its bright golden foliage caught my eye from afar the first time I saw it at renowned nurseryman Don Shadow's. Needless to say, a pot went home with me to the UT Gardens, Jackson. 'All Gold' is so bright you would expect it to burn in full sun but it just gets better.

During the winter months the foliage deepens, taking on a slightly bronze hue. Our now four-year-old specimen in the Gardens is a perfect carpet, covering a 5-foot circle and only 8 to 10 inches tall.

As with most junipers 'All Gold' is drought tolerant once established, prefers well-drained soil, and full sun. Native to sand dunes in Japan, shore juniper is tolerant of salt, making it a good choice near sidewalks and parking lots where salt is used to melt ice. Hardy to zones 6 to 8.





UT GARDENS, KNOXVILLE

By James Newburn, UT Gardens assistant director

1

Brad Greenwood of Custom Copperworks and Blacksmith demonstrates forging at Blooms Days Garden Festival and Marketplace. This marked the twelfth year for this annual event that draws thousands to the Gardens for workshops, tours, shopping, food, and entertainment. Held on Mother's Day weekend, there was even a daylily gift for moms provided by Oakes Daylilies.

Photo: Hurley Co Photography

2

Camp Cultivate, a food allergy camp sponsored by Allergy and Asthma Affiliates of Knoxville, lets kids with and without food allergies come together and learn aspects of gardening and how to live with allergies.

Photo: Derrick Stowell

3

Garden to Table Camp was a weeklong camp where participants explored the whole process of growing, harvesting, preparing, and enjoying healthy food. Held in collaboration with UT Culinary Institute, campers are seen here with Chef Tyler White sampling some of the wonderful garden-fresh dishes they helped prepare.

Photo: Derrick Stowell

4

The weeklong UT Extension Knox County Master Gardener 4-H camp allowed UT Extension students to enjoy the UT Gardens while engaging in nature play and learning about environmental stewardship.

Photo: Derrick Stowell

5

Healthy plants come from healthy soil. These young environmentalists are harvesting worm castings to enrich the soil and grow healthy plants while at UT Extension Knox County Master Gardener 4-H camp.

Photo: Derrick Stowell

6

This spring's second annual Gardens Gala was a huge success, earning more than \$30,000 for student internships and Gardens operations. Presented by our community partner HGTV, popular network personality Vern Yip served as celebrity guest and emcee. Here he is with an excited Donna Davis who was the highest bidder on a design consultation package.

Photo: Hurley Co Photography

7

Noted iris hybridizer and Knoxville Tom Parkhill was honored at the Gala for his contribution to horticulture. Having introduced nineteen cultivars to the market and received numerous awards, he is truly a Tennessee gardening legend. Most of his introductions and many others from his collection can be seen in the UT Gardens. Pictured is Sarah Cronan, representing HGTV, presenting a framed iris photograph to Tom as part of the celebration.

Photo: Hurley Co Photography

8

Recent environmental studies graduate and UT Gardens education intern Kate Barnes points out squash blossoms to eager learners in the children's education garden as part of a summer camp.

Photo: Derrick Stowell

9

It takes a village (or close to one) to move 800 hosta plants from the home of donor Cornelia Holland to the UT Gardens as part of the developing Tranquility Garden. This garden will house one of the finest public collections of hosta, camellias, azaleas, Japanese maples, and other shade plants in the region.

10

Turf renovations continue with additional 'El Toro' zoysia sod being laid, donated by Palmer's Turf Nursery of Dunlap, Tennessee. Ben Cordes of the UT Gardens prepares the next section using the Gardens' own Bobcat skidsteer procured with funds partially provided by a generous donor. Next need: a reel-type mower for continuing maintenance of this great finishing touch to the Gardens' beauty.

Photo: James Newburn





UT GARDENS, CROSSVILLE

By Nancy Christopherson, UT Extension Tennessee
Master Gardener, Cumberland County



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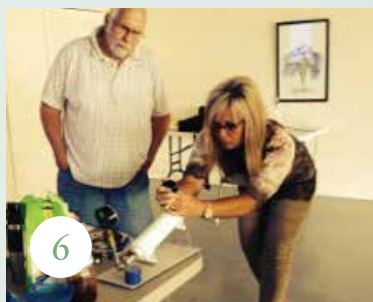
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Mark Windham's ornamental research trials within the Gardens allow visitors the opportunity to enjoy sixty-nine varieties of hydrangeas. Here, Ainsley Cockerham from Bartow, Florida, poses near her favorite.

2

In addition to guided garden tours, wagon tours of the UT Plateau AgResearch and Education Center can be arranged. Members of the Fairfield Glade Garden Club took advantage of one on a July afternoon.

3

UT Extension agent Gregg Upchurch conducts a session on spring pruning. After instruction, attendees were able to practice newly acquired techniques before leaving class.

4

Classes scheduled during the late winter and early spring were held indoors. Here, Cumberland County Master Gardener Carol Burdett shares techniques for successful container gardening.

5

The Plateau AgResearch and Education Center and the Cumberland County Master Gardener Association combine financial resources to offer a college internship each summer. This internship is individualized to the student's interests and includes off-site visits. Terri Brimigion, 2014 intern and daylily admirer, discusses daylily propagation with Blooming Idiots owner Nancy Rich.

6

In addition to cooking demonstrations, From Garden to Table classes teach food preservation techniques. UT Extension agent Kelli Bottoms provided pressure gauge testing during the water bath and pressure canning class.

7

Chef Dean Towers schedules cooking demonstration classes as foods are harvested from the Gardens. Following the tastings from his eggplant class, one member was heard to say, "This guy can even make eggplant taste good!"

8

A partnership between the Crossville Chamber of Commerce and Gateway Productions provides tapings of educational segments in the Gardens for airing on five local cable channels. Cumberland County Master Gardener Dave Armbrust shares not only the importance of rain barrels, but step-by-step instructions for assembly.

9

Japanese gardening enthusiasts participated in a class conducted by Bonsai artist and expert Owen Reich. Following general instruction, Reich provided one-on-one lessons (shown here with Ann Ebert) as participants began pruning their own bonsai trees to take home.

IO

A new demonstration area funded by the Ebert family will feature dwarf variety plants and recycled ground glass mulch.

II

Work continues on the Kinder Garden. This green tunnel provides an opportunity for children to develop gross motor, body awareness, motor planning, and cooperative and imaginative play skills. The green tunnel was made from metal framing with fast-growing vines that serve as the ceiling and walls, allowing children to visually examine plants from all views. Light filters into the tunnel through "windows" and open areas of the plant.

UT GARDENS, JACKSON

By Ginger Rowsey, UTIA Marketing and Communications

In the Gardens

I

The annual Fall Plant Sale and Garden Lecture Series was held Thursday, October 2, 2014, at 2 p.m. Carol Reese always kicks off the event with an overview of her personal favorite plant sale features.

2

Master Gardeners pot bare root trees to be sold at a plant sale. These trees were sourced locally at Tennessee wholesale nurseries.

3

With its glorious golden color, the UT Gardens, Jackson, ginkgo tree gets many visitors in the fall.

4

The focal point of the UT Gardens, Jackson, bottle art exhibit is a 40-foot wall of hanging bottles. It took more than a week to assemble and features more than 1,200 wine bottles.

5

Jason Reeves is the chief architect of the bottle art exhibit. More than 6,000 bottles adorn the grounds. Features include a bottle wall, dozens of bottle trees, bottle chandeliers, bottle-lined beds, even bottle critters.

6

The UT Gardens, Jackson, has just wrapped up another Elephant Ear Contest. Gardeners compete to see who can grow a Thailand Giant Elephant Ear with the largest leaf. The 2013 winner was Caroline Davis of Jackson, who nurtured this leaf to a length of 67 inches.

7

West Tennesseans always look forward to a new UT Gardens, Jackson, Pumpkin Display composed of thousands of pumpkins, gourds, and squash grown on the grounds. Pictured here is the popular "Pumpkin Mountain."



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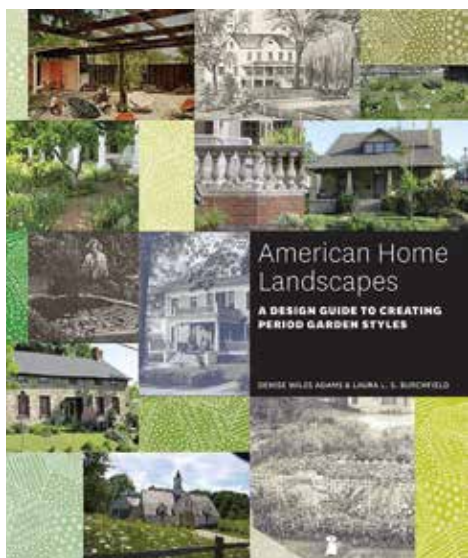
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BOOK REVIEW

By Joan Worley, UT Extension Tennessee Master Gardener, Blount County



HISTORIC HOMES AND GARDENS TO MATCH

Whether you live in a designated historic neighborhood or not, unless it's brand new, your house has a history, as does your garden. Gardens evolve according to the sometimes curious plant fashions of the day and, of course, the whims of those who dig, delve, and plant in them. *American Home Landscapes: A Design Guide to Creating Period Garden Styles* (Portland: Timber Press, 2013) will inspire you to take a fresh look at your neighborhood, and perhaps give you an historical appreciation for that odd shrub at the bottom of the driveway.

In the first line of the Introduction, the authors, Denise Wiles Adams and Laura L.S. Burchfield, both PhD horticulturists (Ohio State University), state that their book is "primarily a resource to assist the landscape designer and homeowner in planning an authentic landscape for a house of any age." It's also a fascinating, fun read for preservationists, and for anyone who likes history, houses, plants, or garden culture.

Few of us will ever design an authentic period landscape, but we might like to add a few plants, or perhaps a fence, in keeping with the age and stage of our homes, in order to avoid a jarring clash of styles, in which case, *American Home Landscapes* (AHL) will be just the ticket. It covers six architectural periods, from 1620-2000, with descriptions of favorite plants and garden features of each era, with plant lists by geographic region and type of plant (trees, vines, annuals, etc.). The authors researched period nursery and seed catalogs for authenticity.

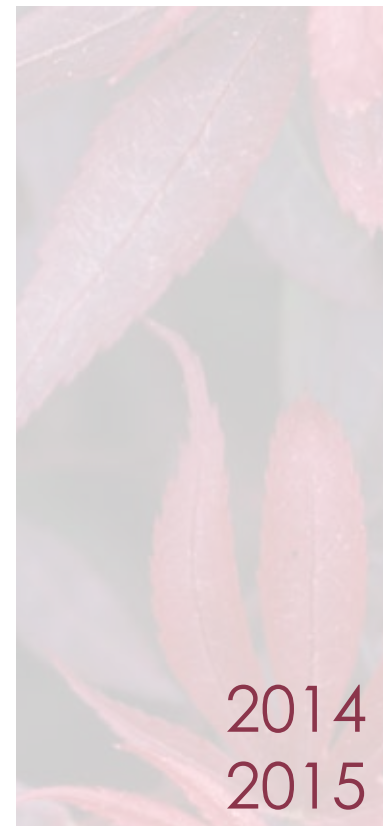
Following chapter one, "So You Want to Design a Historic Landscape," there are chapters devoted to each of six time periods, beginning with the Colonial Period and the New Republic (1620-1820) and ending with Suburban Landscape to Green Revolution (1960-2000). Each opens with a garden-related timeline: for example, the 1960-2000 timeline includes Rachel Carson's

Silent Spring (1962), the marketing of string trimmers (1972), and the founding of the Seed Savers Exchange (1975). There is a short essay on social and other influences on gardens of the period, and another on architectural styles (the split-level ranch with family room and front-facing garage is one).

In every chapter there is a list of Essential Elements: deck or patio, barbecue grill, and areas for recreation and entertaining are three of the six bullets for 1960-2000. Essays discussing special garden features follow: children's play areas, overhead structures, and garden accessories are three of those highlighted. Appropriate drawings and color photographs illustrate the points made. Each chapter also includes one or more case studies of particular homes and gardens typical of the time. Three to seven pages of plant lists follow, with both common and Latin botanical names. The attractive layout and arrangement of these elements within each chapter make the content very accessible.

AHL is a large format, 302-page book. An eleven-page bibliography arranged by chapter, an excellent glossary, and a comprehensive index follow the text. The authors' treatment is user-friendly throughout; coverage is thorough without being exhaustingly academic. The bibliography is a case in point: meticulous scholarship is apparent, yet the arrangement by chapter makes it easy for the reader to identify books of interest.

American Home Landscapes is admirable for its well-researched content, the tone of its writing, and for its strong, subliminal theme: gardens do not exist in a vacuum; they are an integral part of society, both affecting and affected by popular culture, the built environment, politics, the economy, science, industry, the arts, and of course, all the life forms that inhabit them.



2014
2015

event & education calendar



We continue to see new growth and excitement around the variety of educational programming offered at the UT Gardens, Knoxville. Check out all that the Gardens has to offer and come garden with us!

Adult Workshops

These make-and-take workshops will teach you how to create a variety of garden-related projects for your home.

Garden Sprouts

Get your youngest ones gardening with our preschool program. These activities are designed for preschool-aged children and at least one adult.

Growing Together

Gardening takes a team. Parents, grandparents, and children, come out to the UT Gardens to make memories and learn fun and new gardening ideas.

Garden Trips/Go Garden

Did you know schools can visit the Gardens and take part in our educational program called Garden Trips? If your school cannot make it to the Gardens, we offer a traveling program called Go Garden. Cost is \$5 per student.

Home Grown

Enhance your home-school program with hands-on fun and educational sessions. If you cannot make the scheduled program, contact our garden educator to set up a special session for your group of home-school families.

Therapeutic Horticulture

Do you have a group of individuals with disabilities or health issues? Gardening is a powerful therapeutic tool. We can design a custom program to meet the needs and goals of your group. Sessions are scheduled by request.

Sunday Garden Talks

Join us once a month for a variety of garden talks. This benefit is free to members and \$5 for nonmembers.

Group Tours

Take a tour of our Gardens. Tours last about an hour and will give you a look at the history and future of the UT Gardens as well as other gardening knowledge. We ask for a \$5 per person donation for group tours. Tours are scheduled by request.

*All programs require preregistration. Contact Derrick Stowell, garden educator, at dstowell@utk.edu or 865-974-7151, or visit utgardens.wildapricot.org/UTGardensEvents to register.



UT GARDENS, KNOXVILLE

December

Garden Sprouts: Feed the Birds

Tuesday, Dec. 2, 10-11:30 a.m.
A bird has to eat. Learn how birds have adapted to winter months, and explore several birdfeeder options. Then build your own birdfeeder to take home.

Cost: \$5/member, \$10/nonmember

Home Grown: Wonderful Worms

Wednesday, Dec. 3, 1-3 p.m.
Worms do more than help you catch fish. Explore the underworld of worms and learn how they are nature's tillers. See how worms eat your trash and turn it into the best fertilizer for your garden. Build your own starter worm bin to take home and start worm composting.

Cost: \$10 per student

Adult Workshop: Wreath Making

Saturday, Dec. 13, 1-3 p.m.
Learn how to take fresh greenery and create your own holiday wreath to display in your home. Cost of the program includes materials.

Cost: \$30/member, \$40/nonmember

Growing Together: Holiday Fairy Garden

Saturday, Dec. 13, 10 a.m.-noon
Fairies like to celebrate the holidays, too! Bring a container of your choice and learn to create an indoor, seasonally themed fairy garden. Basic materials, plants, and accessories will be provided.

Cost: \$30/member family, \$40/nonmember family

January

Garden Sprouts: Fantastic Flower Pots

Tuesday, Jan. 13, 10-11:30 a.m.
How do flowers grow? Why do pots have holes? Preschoolers will learn answers to these questions and decorate their own flower pots to take home.

Cost: \$5/member, \$10/nonmember

Home Grown: Garden Planning

Wednesday, Jan. 14, 1-3 p.m.
It may be cold outside, but it's never too early to start planning your garden. Students will practice math, geometry, and a little science as they plan and design their home garden for the next growing season.

Cost: \$5 per student

Adult Workshop: Stone Troughs

Saturday, Jan. 31, 10 a.m.-noon
Learn how to make unique garden containers using simple ingredients. These stone-like containers are durable and lighter in weight than ceramic containers of the same size. Participants will make their own stone trough to take home.

Cost: \$30/member, \$40/nonmember

Growing Together: Insect Hotel, Artful Habitat for Beneficial Insects

Saturday, Jan. 31, 1-3 p.m.
Growing organically is a popular trend, and learning how to manage pests using beneficial insects is one important component in your organic garden. This class will explore which insects are beneficial and how you can attract them to your garden. Participants will build an artful insect hotel to take home.

Cost: \$30/member family, \$40/nonmember family

February

Sunday Garden Talk: Intro to Organic Gardening

Sunday, Feb. 8, 2:30-3:30 p.m.
This session will focus on how to start growing organically. Learn basic techniques to reduce the need for pesticides, inorganic fertilizers, and weed killer in your home garden.

Garden Sprouts: Carnivorous Plants

Tuesday, Feb. 10, 10-11:30 a.m.
Plants that eat animals!? This session will explore the world of plants that attract and kill insects. Preschoolers will look at several carnivorous plants and learn how to care for them. Participants also will be given some ideas as to where to buy their own carnivorous plant.

Cost: \$5/member, \$10/nonmember

Home Grown: Water Conservation

Wednesday, Feb. 18, 1-3 p.m.
Students will learn about the water cycle, why it's important to conserve water, and how to set up a home rain barrel. They also will explore engineering as we figure out how to optimize rain barrels in the UT Gardens.

Cost: \$5 per student

Growing Together: Toad Abodes

Saturday, Feb. 28, 10 a.m.-noon
Toads need a place to sleep. Explore the world of toads, and create your own toad abode to take home and place in the garden.

Cost: \$10/member family, \$20/nonmember family

March

Adult Workshop: Intro to Garden Photography

Saturday, March 7, 10 a.m.-noon
With the invention of smartphones, almost anyone can take great photos. This class will explore basics of photo composition. Using the Gardens as a backdrop, practice and sharpen your photography skills. This class also will touch on the use of traditional and nontraditional cameras.

Cost: \$10/member, \$20/nonmember

Sunday Garden Talk: Spring Flowers

Sunday, March 8, 2:30-3:30 p.m.
Spring is just around the corner. Come and learn about flowers that bloom early in the UT Gardens. If weather permits we will spend time outside exploring what is blooming or about to bloom.

Cost: free/member, \$5/nonmember



SPECIAL EVENTS

2014-15 event & education calendar

Garden Sprouts: Toads and Frogs

Tuesday, March 10, 10-11:30 a.m.
Toads are not frogs, and frogs are not toads. Learn about these two amphibians and how they might live in your garden, and create a toad abode to take home.

Cost: \$10/member, \$20/nonmember

Home Grown: Seeds

Wednesday, March 11, 1-3 p.m.
Seeds are vital to human survival. Without them we could not eat. Explore the life of a plant and how seeds grow, then sow vegetable seeds to take home and grow.

Cost: \$5 per student

Eggstravaganza

Saturday, March 28, 10 a.m.-2 p.m.
Hop on down to the UT Gardens and enjoy the spring! Don't forget to bring your Easter basket, take part in crafts, and hunt for some eggs. The Easter Bunny will be jumping to get his picture taken with you. Preregistration for a specific hunting time is required. Hunts will begin at 10:15 a.m., 11:30 a.m., 12:15 p.m., and 1:30 p.m.

Cost: \$5 per child

April

Spring Spectacular Plant Sale

Saturday, April 11, 9 a.m.-2 p.m.
Enjoy a spring day in the Gardens and take a few plants home to grow. Learn which plants will work best in your landscape from our garden experts. UT Gardens members receive a 10 percent discount on all purchases.

Garden Sprouts: Worms

Tuesday, April 7, 10-11:30 a.m.
Worms are a part of every successful garden. Preschoolers will explore the life of worms and will make a worm compost bin to take home.

Cost: \$10/member,
\$20/nonmember

Growing Together: Leaf Casting

Saturday, April 11, 10 a.m.-noon
See how to preserve garden leaves by making leaf castings. This easy and fun activity will help you add some art to your garden or home, as you will make a leaf casting to take home and display.

Cost: \$20/member family,
\$30/nonmember family

Sunday Garden Walk

Sunday, April 12, 2:30-3:30 p.m.
Take a walk through the UT Gardens and see what is in bloom.

Cost: free/member,
\$5/nonmember

Save the Date

UT Gardens Gala

Friday, May 1, 2015

Blooms Days 2015

Mother's Day weekend
May 9 and 10, 2015

Books & Blooms

Starts Thursday, May 14, 2015
Every Thursday 10:30 a.m.-noon
Ends Thursday, August 13, 2015

CROSSVILLE

"If Not Today, Then Tamale"

Thursday, Dec. 4, 1 p.m. CST
Once again, Chef Dean Towers fires up the stove and your imagination, this time to address the tamale. Originated by the Mayan culture some 8000 years B.C., the tamale is a favorite Latin American dish today. Fun, but easy to prepare, and who knew that some are even filled with fruit? Class size is limited, so register early! Cost: \$10, and participants will take home six tamales each.

Vermiculture

Saturday, Jan. 24, 10 a.m. CST
There's a whole subculture to composting when you enlist worms—usually red worms—to do your dirty work. Diane Morey will teach you how vermicomposting, or composting with worms, turns garbage into a rich, dark, earth-smelling soil conditioner, which you can use to help your lawn, your flowers, or your vegetable garden.

Cost: free

Maintain Your Lawn

Thursday, Feb. 12, 10 a.m. CST
Join UT Extension agent Gregg Upchurch as he explains how to maintain a lawn . . . the proper timing for weed control, fertilizing, etc. No question will be left unanswered!

Cost: free

Shrubs and Trees of the Plateau

Saturday, Feb. 21, 9 a.m. CST
Join UT Extension Master Gardener Carol Burdett as she provides an overview of shrubs and trees that grow well on the Plateau.

Cost: free

For additional class information, please visit www.ccmga.org. To register for classes, contact Jennifer Burns at 931-484-0034 or jburns35@utk.edu. All classes and events are held at the UT Plateau AgResearch and Education Center, 320 Experiment Station Road, Crossville, Tennessee.

JACKSON

Master Gardeners' Spring Plant Sale

UT Gardens, Jackson, TBA (Date and time will be posted at west.tennessee.edu/ornamentals.)

Summer Celebration

Thursday, July 9, 10 a.m. CDT
A one-day adventure for gardening enthusiasts. More than a dozen lawn and garden talks, amazing plant sale, cooking demonstration, and free diagnostic center.

For more information on all events, visit west.tennessee.edu or call 731-424-1643.

event & education calendar

SPRING 2015 ART CLASSES IN THE UT GARDENS, KNOXVILLE



CLASSES ARE 1-4 P.M.

COST: \$30/MEMBER, \$40/NONMEMBER PER CLASS
\$275/MEMBER, \$375/NONMEMBER FOR THE ENTIRE SERIES OF TEN

Jan. 10 – Charcoal, Lines, and Trees: This class will explore basic drawing and observation techniques. Plants from the UT Gardens' collection will be our models as we apply the principles of classical figure drawing to develop coordination between our hands and eyes.

Jan. 24 – Black and White Conifers: Here we will focus on the forms, textures, and mass of conifers. We will work to interpret and express those qualities through the observation of light and value using only black-and-white dry and wet media.

Feb. 14 – Late Winter Color: In this class we will explore the Gardens in search of colorful winter interest specimens. We will then explore the basic principles of color theory as we observe and render our cut specimens using colored pencils.

Feb. 28 – Color and Depth: Using acrylic on wood, we will work to observe and render cuttings of a unique and colorful winter interest specimen. We will begin pre-study drawings and exploring composition.

Mar. 14 – Spring Still-Life: With fifteenth- and sixteenth-century Flemish and Dutch masters in mind, we will cut, arrange, and draw our own still-life masterpieces. We will use pastels and various mid-range colored to black drawing papers to help us break through the standards of the color wheel and understand the less exalted realities of the color spectrum.

March 28 – Spring Flower Portraits: This class will focus on the selection, placement, observation, and rendering of a single cut spring flower. Using watercolor on watercolor paper, we will explore mixing colors, timing, and patience when working with fresh spring models cut from the Gardens.

April 11 – Pastels in the Gardens: Here we will turn to basic techniques of drawing and observation as we work outside. We will use pastels and various papers as we explore and express single specimens, beds, and vistas in the Gardens.

April 25 – Sketching with Watercolor: We will observe landscape watercolors by masters, then go into the Gardens to sketch with watercolors and discover the boundaries and nuances of the medium—as well as the artist's need to edit.

May 9 – Drawing for Botanic Realism: We will work with pencils and erasers to explore and strengthen observational techniques, as well as accurate rendering of species within the UT Gardens' collection using line, value, and texture.

May 23 – Painting Iris: One goal in this class will be to produce an accurate likeness of a specific iris cultivar in the Gardens' collection using dry-brush watercolor technique. The other will be to create a loose, expressive painting of a mass of iris or other flowers using watercolor, pastels, or charcoal through direct outdoor observation.



VOLUNTEER AND MEMBERSHIP TIDBITS

By Beth Willis, UT Gardens membership and volunteer coordinator

ARE YOU GETTING E-NEWS?

Our monthly e-newsletter highlights upcoming programs, our plant of the month, regional gardening tips, and other information relevant to our members and area gardeners. This e-newsletter is free and no membership is required to sign up for it. If you are not receiving the monthly e-news, you can subscribe to it on our homepage at utgardens.tennessee.edu. You also can subscribe to an educational newsletter that is sent out every other month. This newsletter details upcoming classes, lectures, workshops, and other programming for children, families, and adults. We do not share, rent, or sell member email addresses. You may unsubscribe at any time.

MEMBERSHIP CARDS

Shortly after joining or renewing your UT Gardens membership, you will receive a membership card in the mail. This card will have your renewal date on it. You can use this card throughout the year to receive your member discount at our plant sales, to access the member pricing for our educational programming, and to provide proof of membership at gardens participating in the Reciprocal Admission Program. Please allow four to six weeks to receive your card. If you have questions about membership, or would like further information, please contact Beth Willis at 865-974-2712 or ewillis2@utk.edu.

MEMBER BENEFIT: BETTER HOMES & GARDENS SUBSCRIPTION

Through the UT Gardens' membership in the American Public Gardens Association (APGA), we are excited to extend the offer of a complimentary one-year subscription to Better Homes & Gardens magazine to anyone joining or renewing a Gardens' membership through September 2015. You will receive a BHG subscription card with your UT Gardens membership card. To claim your subscription, fill out and mail the postage-paid card to BHG. Current subscribers will have the option to extend their subscription.

MEMBER BENEFIT: RECIPROCAL ADMISSION PROGRAM

The UT Gardens is proud to be participating in the American Horticultural Society's Reciprocal Admission Program. This is a great benefit for our members, who can enjoy free or discounted admission at nearly 300 participating gardens across the country. Certain gardens may ask to see your membership card to verify that your membership is active. If you cannot find your card, contact us in advance of your trip so we can supply a duplicate. We also suggest that you carry with you a current list of participating gardens in case there are any questions about a particular garden. The most up-to-date list can be accessed at utgardens.tennessee.edu. Go to our Links page and then to the Reciprocal Admission Program link.

BECOME A KNOXVILLE GARDENS VOLUNTEER

The UT Gardens, Knoxville, is always in need of new volunteers! Volunteers play a vital role in the UT Gardens, and we invite you to join this dedicated team. Whether you like getting your hands in the soil, prefer to help with special events or educational programming, or enjoy office duties, we have volunteer opportunities just for you.

Contribute to your community, form new friendships, and learn new skills—all while having a lot of fun! Volunteer opportunities also exist for students and teens.

To learn more, contact Beth Willis, volunteer coordinator, at 865-974-2712 or ewillis2@utk.edu.

2015 VOLUNTEER LUNCHEON

The UT Gardens volunteer program will be on hiatus during the winter months (December through mid-February). It will resume at our Volunteer Appreciation and Kickoff Luncheon, scheduled for noon on Wednesday, February 25, 2015, at the UT Visitors Center. This annual event has become a volunteer favorite, as we gather both to celebrate the accomplishments of the previous year and to anticipate the opportunities of the current year. Those who have been Gardens volunteers in 2014 will automatically receive an invitation to the event, but we would also like to invite those intending to become volunteers in 2015. Please contact Beth Willis for further details.



DECK THE HALLS WITH BOUGHS OF HOLLY

By Sue Hamilton, UT Gardens director

Photos by Liz West

Can you imagine the holidays without holly? The bright red berries and shiny green, needle-point leaves are found on wrapping paper and greeting cards, and fresh boughs grace front doors and fireplace mantles.

Decorating with holly is an ancient custom. The Druids believed that holly was sacred because it remained green all winter, and the Celtic people of Northern Europe decorated their homes with holly during the winter solstice, or Yule. The Chinese used holly to adorn temple courts and large halls during their New Year's festivals in February. Holly was also used by the Romans during the Festival of Saturn to honor the Roman god of sowing and husbandry.

To meet the modern day demand for holiday decorating, orchards harvest as much as 3,000 pounds of holly per acre! Cut holly branches will last for weeks even out of water. To dress up your empty outside containers, stick in a few branches of holly and evergreen trimmings.

The holly family is huge, with hundreds of selections existing for almost every landscape situation. They make popular landscape plants because they are easy to grow. They can be deciduous or evergreen; small (18 inches) or large (over 50 feet); and colors are abundant. There are green forms, blue forms, and forms with variegated foliage. Berries can be red, orange, yellow, or black. Leaves may be small and spineless or large and armed. Their shape can vary, too, from columnar to rounded or weeping. They are used as standalone trees, in foundation plantings or hedges and screens, and in mass plantings.

Since most hollies are dioecious, meaning there are male and female plants, cross-pollination is required for berries to be produced. Make sure when purchasing hollies to find out if a male pollinator holly is needed for berry production. Plant a male plant within 30-40 feet of females to ensure good fertilization and berry set. Most hollies prefer to grow in moist, well-drained, slightly acidic soils. Most do well in partial-shade to full-sun, but check with your local nursery for the particular requirements of the cultivars you select. To learn more about hollies and their characteristics, check out The Holly Society of America website, www.hollysocam.org.

If you'd like to grow your own holly for landscape beauty and home decorating, here are some of the best selections that also make showy specimens in your landscape. Also, the UT Arboretum at the UT Forest Resources AgResearch and Education Center



Evergreen Holly is a perfect addition to any household during the holiday season.

in Oak Ridge has a renowned holly collection that is a wonderful resource for observing plant performance and determining your own preferences. For information on the Elmore Holly Collection go to forestry.tennessee.edu/hollies.htm.

Evergreen Holly

The evergreen recognized as a U.S. traditional favorite, with green leaves and red berries, is the English holly (*Ilex aquifolium*). In the South, it is slow growing and not the best performing holly. Numerous hybrid hollies exist that have all been bred for exceptional qualities. Following are selections that perform well in Tennessee and provide the "traditional" holly look. These selections are readily available in garden centers and nurseries. *Ilex* x 'Emily Bruner' (30 feet tall), 'Nellie R. Stevens' (30 feet tall), 'Foster #2' (30 feet tall), 'Wirt L. Winn' (25 feet tall), 'Dr. Kassab' (20 feet tall), 'Mary Nell' (20 feet tall), 'Cardinal' (14 feet tall), 'Robin' (14 feet tall), 'Oak Leaf' (14 feet tall), 'Lydia Morris' (12 feet tall), and 'Little Red' (10 feet tall).

If you'd like to add some gold excitement in your garden with hollies, both 'Whoa Nellie' (30 feet tall) and 'Sunny Foster' (30 feet tall) are good selections. Both produce red berries providing a riot of color against their gold foliage.

Deciduous Holly

Not every holly is an evergreen. Deciduous hollies are valued for their loaded branches of striking red berries throughout the winter. Both *Ilex decidua* and *Ilex verticillata* have foliage that turns yellow and drops in the fall leaving branches loaded with bright red berries. Some good selections of deciduous holly include 'Warren Red' (25 feet tall), 'Council Fire' (18 feet tall), 'Winter Red' (10 feet tall), 'Winter Gold' (8 feet tall, coral-colored berries), 'Berry Nice' (8 feet tall), 'Berry Heavy' (8 feet tall), and 'Red Sprite' (4 feet tall).

Of all the hollies mentioned, it's worth noting that The Holly Society of America has chosen several as their "Holly of the Year" to promote and encourage the use of outstanding selections in the landscape. 'Sunny Foster' was chosen for 2006, 'Red Sprite' deciduous holly for 2010, and 'Nellie R. Stevens' for 2011. For more information go to www.hollysocam.org.





MYSTERIOUS MOSS HAS STRANGE LOVE LIFE

By Carol Reese, UT Extension Western Region ornamental horticulture specialist

Photos by Carol Reese

Just the word “mossy” implies something ancient and enigmatic. Certainly a mossy patina does give that ambience to whatever it may cover—a forest floor, a roof, a garden statue. I find mosses not only mysterious, but downright confusing. I like knowing where things fit into the taxonomic order. In other words, just what the heck are they?

I was supposed to have taken a course on mosses and liverworts, which are lumped together in taxonomic terms as bryophytes. The professor had some health crisis and it wasn't taught that year, and I never had another opportunity. What, you say? An entire course on mosses? Well, turns out there are 10,000 species of them worldwide, and I'm not even counting the liverworts—though liverworts deserve to be counted. They were the very first land plants to evolve, about 475 million years ago. I guess it's about time to meet them.

Mosses and liverworts differ from most plants in that they are nonvascular plants, having no “vessels” to carry water and food. Another strange characteristic of bryophytes is that they are haploid most of the time. We are most familiar with vascular (flowering) plants, where only the pollen and ovule are haploid, and the plant is diploid. Imagine! Going around most of your life with only one set of genes!

In both mosses and liverworts, the male gamete swims through water in a very sperm-like way to the female gamete. This results in an elongated sporophyte body, which sounds obscure, but actually, you have likely seen. The sporophyte bodies are those little slender spears that stand above the velvety moss.

Within those little spear heads, the diploid cells created by the union of the male and female gametes are dividing and becoming haploid spores. The spores, when they are released and find an accommodating site, will germinate into a haploid plant, and it all begins again. This is so bizarre to me, since I know seeds are composed of two sets of genes, one from each parent. These spores contain only one set. Crazy, huh? This new haploid set will contain some new genetic material though, from the union of the two gametophytes.

These plants have no true roots. The little “rhizoids” you rip when you pry a chunk of moss off the ground only serve to anchor the plant, and do not pick up water and nutrients. All water and nutrients are absorbed by each individual cell and move through the plant through osmosis. No wonder these plants form dense, tight coverings over moist areas. They must, to survive. This also explains why mosses revive so quickly after a rain.

Some mosses are monoecious, meaning that both the male and female gametophytes are produced on the same plant. In other species of moss, the male part and female parts reside on separate plants, and they may look entirely different from each other. So I could be thinking it's two different mosses, when it is simply a gender difference. I'm going to need another lifetime to figure out these plants.

I don't need a lifetime to recognize their value as a landscape plant, though it seems a lot of other people do not agree. Just for kicks, I typed in search terms “how to kill moss” and got over 13 million results. Then I typed in “how to grow moss” and was encouraged to see there were 18 million results for that search, so hurrah for the moss lovers. We seem to be winning though not so long ago, that was not the case.

Just this summer, a lady that lives on my home road asked me how to kill the moss taking over her lawn. Knowing her shady landscape, I asked her a series of questions. Did she want to get rid of her trees? Did she want to rent an aerator? Was she willing to get her soil tested, put out enough lime to raise her pH, and wait the several months for that lime to take effect? She wasn't happy about any of that. I told her what she needed was an attitude adjustment about the moss.

In truth, if I can get people to visit the right garden, where moss is the velvety current that flows along the understory, side dressed with shade loving perennials and shrubs, they can experience a miraculous conversion within a minute or two. I've witnessed it, hallelujah!

Moss is low maintenance, and surprisingly sturdy. Where traffic will be heavy, it's a good idea to set some stones or pavers into the moss, which will also provide better traction in wet weather.

To establish moss where there is none, choose a conducive site, start with bare soil, put down pieces of moss, and keep watered. Forget all the silliness about using buttermilk or yogurt, and certainly do not use a blender to create a slurry, as the blender blades will of course be destructive to the moss's structural integrity.



Top Left:

Moss makes a lovely cushioned path in this woodland garden.

Top Right:

Rocks and moss give a primeval ambience to a garden.

Below:

Ferns, hosta, and heuchera are all well suited to the same conditions that moss enjoys.



SEVEN SHRUBS I CAN'T GET THROUGH WINTER WITHOUT

By Hugh Conlon, UT Extension area specialist (retired)

Photos by Hugh Conlon



Witchhazels



Winterhazels



Flowering apricot



Paperbush

Through most of the spring and summer months, Tennesseans fill their gardens with roses, hydrangeas, crape myrtles, et al. Plants that bloom in autumn and winter are mostly ignored. They're seen only by some leaf rakers. Camellias bloom when we're not entertaining outdoors.

For many gardeners, forsythias signal the start of spring. Those of us who spend our winters outdoors (most days) have discovered some treasured shrubs that bloom during the winter. Here are seven of my favorites:

Witchhazels (*Hamamelis* spp.) are medium to large shrubs that can be shaped into small trees. In general, they grow in full sun but prosper in moderate shade. Other than annual pruning, they require little extra care. They grow in any soil that is adequately drained and mildly acidic.

Species native to the eastern United States include American witchhazel (*H. virginiana*) and vernal witchhazel (*H. vernalis*). Asian species include Chinese witchhazel (*H. mollis*), Japanese witchhazel (*H. japonica*), and hybrid forms (*H. x intermedia*). Witchhazel flower color palette ranges from pale yellow, deep gold, and copper, to purplish red.

Vernal witchhazel is a U.S. native, the first to bloom in the winter. It forms a densely branched 8- to 12-foot shrub and begins flowering following a short warm period. The small, half-inch yellow flowers, flushed red at the base, emit a pleasant witchhazel aroma.

Asian witchhazels follow from mid-February through most of March. Many new cultivars are larger and brighter colored.

Winterhazels (*Corylopsis* spp.) represent a group of winter flowering shrubs of varying heights and widths. Small drooping clusters (2-inch-long racemes) of fragrant, lemon yellow flowers are larger and showier than the witchhazels. Blooms open as the witchhazels (they're related) are finishing. Spike winterhazel (*C. spicata*) and buttercup winterhazel (*C. pauciflora*) are low, spreading forms that make good fits in an urban or suburban garden.

Japanese cornel dogwood (*Cornus officinalis*) is a large, 20- to 25-foot-tall shrub. The bright yellow, bractless flowers open three to four weeks before the official start of spring. Bloom period is almost four weeks long. Subfreezing temperatures do not injure the blooms. In summer, dark green foliage exhibits a polished finish, turning a purple to bronze color in autumn.

As the trunk and branches age, the outer bark chips off, exposing its multicolored inner wood. Small cherry red fruit may be harvested in the fall and made into jelly; birds and other wildlife also compete for their fruits. 'World's Fair' and 'Kintoki' (dwarf, 10- to 12-foot-tall) are two cultivars to try.

Cornelian cherry (*C. mas*), indigenous to Eastern Europe, looks similar to Japanese cornel. Flowers tend to open four to seven days later in my Northeast Tennessee garden, always punctual on March 1.

Flowering apricot (*Prunus mume*) is a large shrub or small tree hardy in zones 6 and 7. Provide some winter protection for the lovely shades of pink flowers, which open early and succumb to nightly freezes common in mid- to late winter. This eastern Asia native has upright branching and is fast-growing to 15 to 20 feet tall. The pink blooms with bright red calyxes emit a spicy fragrance. Fuzzy-skinned, green to yellow apricots (to 1 inch diameter), ripen in midsummer and are used to make jams and preserves.

Paperbush (*Edgeworthia chrysantha*) is remarkably winter hardy in most areas of Tennessee. Its fragrant, nodding flowers are a winter joy starting in early March before the new foliage appears. The tubular clusters of flowers are light yellow on the inside and white on the outside. After several years roots will sucker and form small plant colonies.

Paperbush is a multistemmed shrub; its dark, greenish blue foliage stands 4 to 5 feet tall and wide. New spring growth is coated with reddish brown hairs, offering up a furry appearance. Paperbush should be planted in a woodland environment in partial shade.

Zone 6 hardy camellias (*Camellia* x) should be classified as "cold blooded rhododendrons." Most cultivars rated for zone 6 in Tennessee survived the awful winter of 2014. Although some leaves were severely scorched, the plants were fully recovered by early summer. Among the most reliable late winter bloomers are 'April Tryst' or 'Pink Icicle'. Their dark green evergreen foliage is excellent.

Plant in compost-rich, well-drained, mildly acidic soil and away from the wind. Set camellias shallow in a wide planting hole, slightly above soil grade, and mulch with 2 to 3 inches of pine needle or pine bark wood chips. They prefer partial sunlight (four hours of morning sunlight) for best flowering. Set camellias in the spring and summer months, preferably by August 15, so their roots develop before the start of winter.

Hardy camellias are available thanks to extensive breeding and hybridizing. If you have difficulty finding them in your area garden centers, don't forget that e-commerce nurseries can be wonderful.



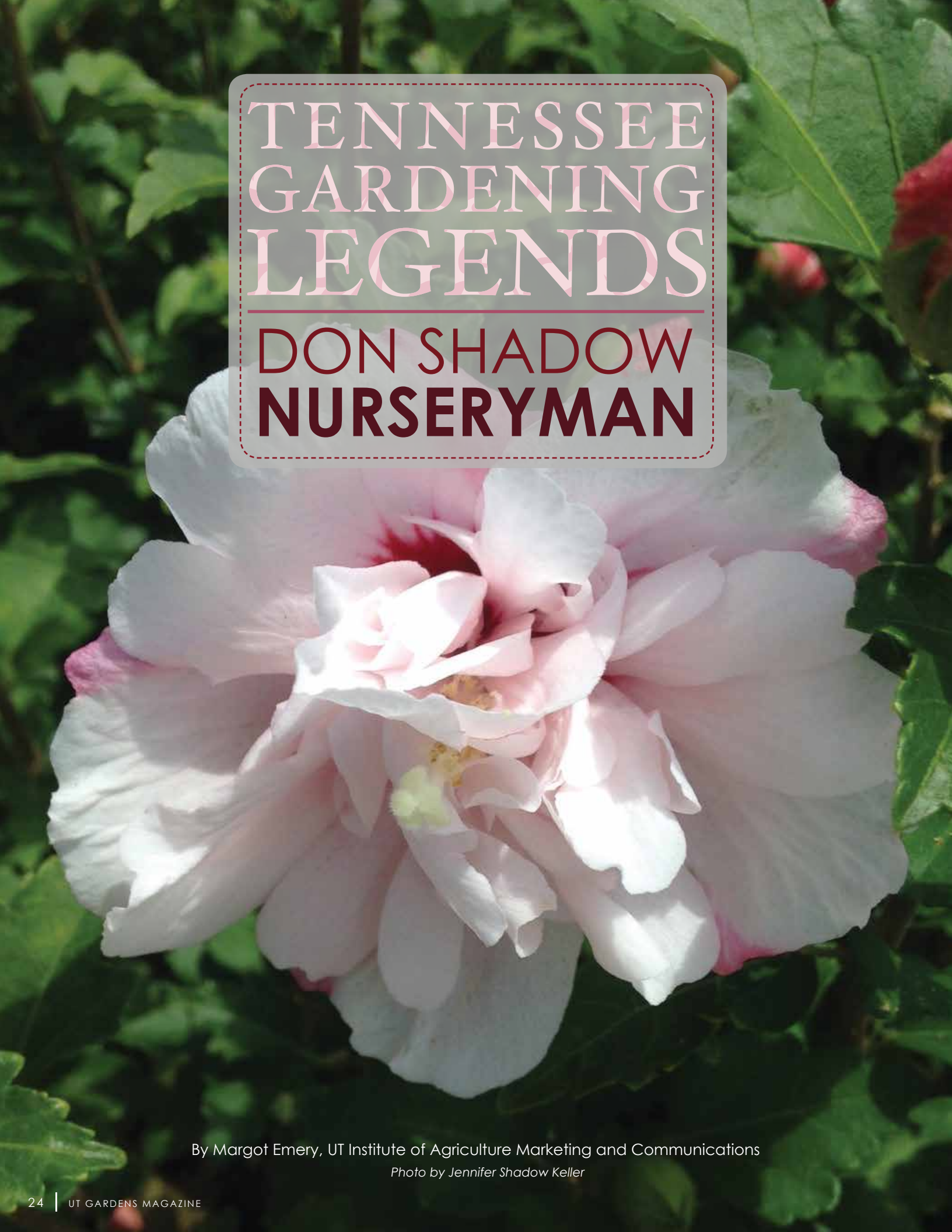
Cornelian Cherry dogwood



'Arnold's Promise' Witchhazel



Camellia



TENNESSEE GARDENING LEGENDS

DON SHADOW
NURSERYMAN

By Margot Emery, UT Institute of Agriculture Marketing and Communications

Photo by Jennifer Shadow Keller

Tiny Winchester, Tennessee, is far removed from the state's metropolitan areas, but it truly is a crossroad of the horticultural world due to the passion of Don Shadow (B.S. horticulture '63). Shadow is president of Shadow Nursery Inc., a wholesale nursery specializing in quality liners, deciduous shrubs, trees, and native and hard-to-find plant material.

A fourth-generation nurseryman, Shadow has had a lifelong interest in new and useful plants. "They were my focus from the start," he says. He shies away from the terms exotic, rare, and unusual. "If you say exotic, then people think they're going to escape and populate the world, and if you say rare or unusual, people think you can't grow them." What he focuses on are plants that fill special niches and do what common plants don't, either through beauty, form, or growth habit or, ideally, all three. Where does he find them? "I constantly look through all the seedling lots to find chance seedlings. Anytime I'm in a new area or go to a nursery, I ask if they've observed anything new and unusual." Shadow also imports plants from Italy, Holland, and other countries. And he's a plant explorer. He's traveled to Japan for fourteen years searching out new and useful plants in Saitama Prefecture, where the Japanese say there are a thousand nurseries, many dating back 425 years. "Some may not be any bigger than a greenhouse, but I've made interesting contacts and friends." And, in return for the cultivars and plant materials he finds there, he shares his own plants with the Japanese.

Georgia's famed horticultural expert Michael Dirr makes trips to Shadow Nursery and so has Martha Stewart. She featured Shadow on her television show (you can watch the video at tiny.utk.edu/ag/Don-Shadow) and also did a segment on his wide-ranging collection of alternative livestock.

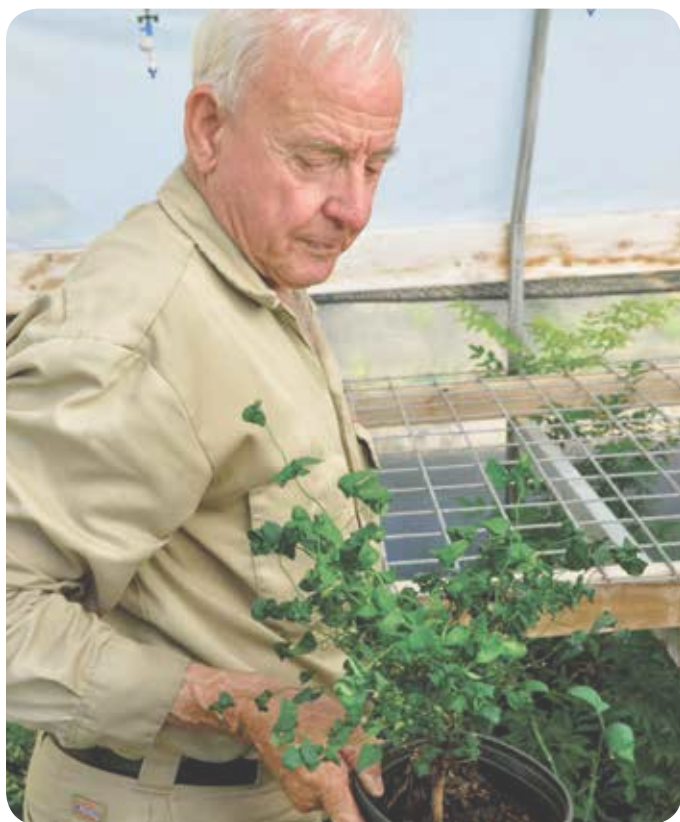
Respect for nature is important to Shadow. In recent years he purchased an old stand forest to protect it from logging. He also preserved a swamp where egrets like to gather. His nursery operation stretches across varied tracts and properties. In all, Shadow has introduced twenty to twenty-five plants. His earliest include Emily Bruner and James Swan hollies. Bruner, a distinguished Knoxville gardener, discovered the chance seedlings at the city's Swan Bakery. Others are 'Slender Silhouette' sweetgum and a variegated sport of 'Celestial' dogwood called 'Celestial Shadow'. He's also proud of a new series of sterile, double-flowering, long-blooming althea

(*Hibiscus syriacus*) with the enticing names of 'Strawberry Smoothie', 'Blueberry Smoothie', 'Raspberry Smoothie', and 'Peppermint Smoothie'.

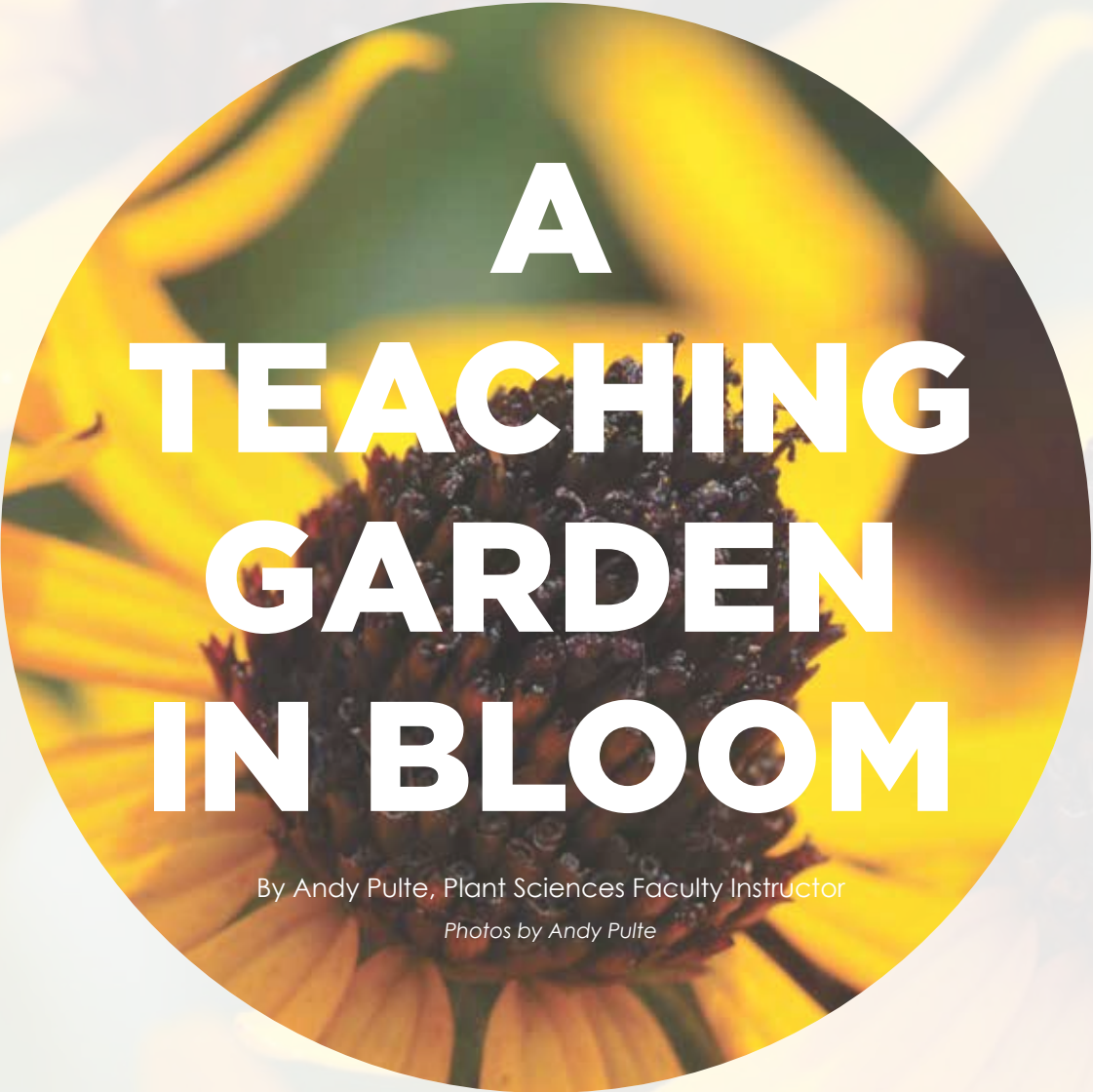
Trends he says that his new and useful plants are well matched for are today's smaller yards where vertical, rather than spreading, growth habit is important, and color and interest in all four seasons. "Take a *Stewartia*, for example. You have very good fall color, a good flowering season, and in the winter you have an interesting bark on most of them. Most of the dogwoods fall into that, too. You have the flowers, the fruit, the good fall color, and then the interesting winter branching." These hard-working plants are in demand today. And you'll find them from Shadow Nursery, just as Shadow himself continues to use his global connections to discover more new and useful plants for America's gardens and yards.

Above: Tennessee nurseryman Don Shadow is a modern day plant explorer. He's made a career of finding new and useful plants for America's gardens from sources throughout the world.

Left: 'Strawberry Smoothie' althea (*Hibiscus syriacus*), one of four double-flowering Smoothie colors that Shadow Nursery has introduced.



Andy Pulte



A TEACHING GARDEN IN BLOOM

By Andy Pulte, Plant Sciences Faculty Instructor

Photos by Andy Pulte

The mission of education permeates everything we do at the UT Gardens. What we do and why we exist revolve around our passion for plants and getting others excited about their beauty and benefits. We hope the knowledge we share enriches and elevates the citizens of the state of Tennessee, the nation, and the world. One of our greatest opportunities to accomplish this mission comes in the form of undergraduate and graduate education.

The Knoxville location of the UT Gardens is a living laboratory for hundreds of students each year. Everything from botany to plant identification is taught using firsthand experiential learning. Even students not involved in the natural sciences use the UT Gardens: vet students learn about plants that are poisonous to animals, and art students use the Gardens to hone their skills.



As you may know, part of my job is to teach students landscape plant identification. This task would be made harder if I didn't have the UT Gardens at my fingertips to draw upon. I have the luxury of walking out of my classroom directly into the Gardens. Little time is wasted walking miles across campus; everything we need is in one spot.

I have been aware for several years of a nursery in England known as Bressingham (Blooms) Garden Centre and its fabulous display gardens known as the Bressingham Garden. This nursery was founded by Alan Bloom in 1946. Bloom, a renowned perennial plantsman, collected plants from all over Europe, and by the early 1960s had nearly 5,000 different species and varieties, making his display gardens both important historically and beautiful. In 1962 his son Adrian joined the family business and further expanded the gardens. Adrian's ability as a nurseryman and his aptitude for creating great mixed gardens with conifers and other woody plant material, perennials, heathers, and bulbs have garnered him respect in all of horticulture.

When speaking of a garden designed by Adrian Bloom, it is hard not to mention the hallmark of his signature style: rivers of plant materials that flow uninterrupted en masse through his designs. Bloom has a knack for choosing specific plants that perform for long periods of time in these rivers (*Geranium 'Rozanne'*, *Heuchera*, *Hakonechloa*, or *Ophiopogon planiscapus 'Nigrescens'*). He looks specifically for plants that have the ability to add a dramatic effect in either a large or small garden.

Around five years ago, several of our greenhouses and one of our classroom spaces were torn down and rebuilt directly behind the UT Gardens. This area is now known as the South Greenhouse. Taking a cue from a few inspirational

gardens I have seen designed by Bloom in the States, I initiated the planning of a new teaching garden surrounding our new greenhouses. Three main ideas permeate this garden. The first is the Adrian Bloom-inspired river of *Geranium 'Rozanne'* that transects the garden from one corner to the other. This river is flanked by many of the same plants I have seen him use in his designs. The second idea is to showcase a well-balanced, mixed garden that uses many types of plant material in harmony. And finally, the third idea is to display improved selections of very common perennials. This display doesn't mean old-fashioned standards don't have a place. This little spot, as well as the entire UT Gardens, contains some traditional plants that are very appropriate. For example, after years of watching and trialing several new varieties of stonecrop sedum, I still believe the cultivar Autumn Joy (syn. Indian Chief or Herbstfreude), which became popular in the 1950s, is my top recommendation and is incorporated into this teaching garden. The new cultivars or selections of plants added to the garden will still need to stand the test of time, but were chosen mainly on their ability to stay compact. Plant breeders over the last decade have done an extraordinary job focusing on breeding shorter plants,

and by doing so, have opened many of these American perennial garden standards up for use in smaller gardens. In addition, the shorter, more compact plants will often lead to slightly less maintenance.

I would be remiss if I did not mention this garden would not be possible without the help of others. Deciding you want a garden is often the easy part; implementation is difficult. Plant materials were donated by Erbin and Ruth Baumgardner of Mouse Creek Nursery, as well as purchased from teaching funds provided by the Department of Plant Sciences. Money raised from plant sales at the Gardens and staff support were also very important. Students played a large role in bringing the garden to life. From plan rendering to putting holes in the ground to weeding and watering, students continue to learn as they work.

This garden, as well as the UT Gardens as a whole, is a place where students come to learn. I hope you will visit the UT Gardens soon, and take in some inspiration and ideas for your own home landscape.





GROWING SAVORY

Botanical name

Satureja hortensis—Summer Savory

An annual herb easily grown from seed. Small, delicate white to pink flower spikes bloom in midsummer. Fine textured foliage grows 12-18 inches tall and just as wide. Leaves turn purplish red in late summer. Great for use in mixed container plantings or in the foreground of a garden bed.

Light

Full sun to partial shade but best performance is in direct sun.

Soil

Organically rich and very well-drained.

Water

Prefers to be kept dry between waterings.

ITALIAN-STUFFED CHICKEN BREASTS

By Margot Emery, UT Institute of Agriculture Marketing and Communications

Photo by Margot Emery

As the seasons change from fall to winter, dried herbs become important accents to the dishes on our table. This recipe makes excellent use of them and is an easy, company-ready main course. If some of your herbs are lingering on in the garden, you can easily substitute fresh for dried. Just follow the rule of three and triple the amount of dried herbs called for in a recipe with fresh, and you're on your way to a great entrée or side dish.

As you use dry herbs, remember to crush or roll them in the palm of your hand or with a mortar and pestle. This releases their maximum flavor. Briefly toasting seeds and nuts also heightens their taste and aroma.

The Memphis Herb Society shared this recipe from one of the cookbooks it publishes. The recipe calls for savory, not the easiest herb to find but well worth the search. Two different savories,

summer and winter, add peppery taste to food and today are primarily used in soups, stews, and marinades. In medieval times, cooks also added it to pies and cakes for the touch of spiciness it imparts. Savory really shines with beans of any type and is, in fact, known as the bean herb. Summer savory has the more delicate flavor and is preferred for culinary uses, with winter savory (*Satureja Montana*) being more astringent. The herb has therapeutic uses as varied as easing sore throats to treating bee and wasp stings and is recognized as a fine companion plant for onions and beans. Watch for savory seed and transplants at garden centers and in mail-order catalogs this spring and consider adding this useful herb to your garden.



Recipe from *Today's Herbal Kitchen*, Memphis Herb Society cookbook, page 168. For more information on the Society and its monthly meetings, visit its website at memphisherbsociety.com.

Italian-Stuffed Chicken Breasts

4 chicken breasts, boned and skinned
4 thin slices boiled or deli ham
4 thin slices Swiss cheese
Crushed dried sage
1 medium tomato, peeled and chopped
1/3 cup Italian-style bread crumbs (see below)
2 tablespoons Parmesan cheese
2 tablespoons minced fresh parsley
4 tablespoons butter, melted

Flatten breasts to the size of a slice of bread. Place a slice of ham and cheese on each breast. Top with a sprinkle of sage and some tomato.

Roll breasts to enclose filling. Skewer or tie closed. Combine bread crumbs, Parmesan cheese and parsley. Dip chicken in butter and coat with breadcrumb mixture.

Place in greased shallow baking pan. Bake at 350 degrees for about 45 minutes.

Yield: 4 servings

Italian-style bread crumbs

Combine plain bread crumbs with dried basil, oregano, savory, thyme, and marjoram to taste.



PUBLIX SUPER MARKETS CHARITIES CONTRIBUTES TO GARDEN EDUCATION PROGRAMS

By Tom Looney, director of advancement, UT Institute of Agriculture

Photo by Gabriel Clemons, UT Institute of Agriculture Marketing and Communications

Publix Super Markets Charities recently made a gift of \$2,000 to support children and youth education programs in the UT Gardens. The gift was made possible after a team of UT Gardens staff and volunteers submitted a written request. The team included Candy Arrington, wife of UT Institute of Agriculture Chancellor Larry Arrington who got his start working in Publix as a youth in Florida; Derrick Stowell, UT Gardens educator; and Sue Hamilton, director of the UT Gardens. The team decided that since a new Publix store was opening on campus (just across Third Creek from the UT Gardens) that it might be a good time to reach out, Hamilton said.

"We're glad we did, and are excited to partner with Publix as a new member of the campus community," Hamilton said. The Publix gift is a great example of how UT Gardens education programming is growing under the direction of Derrick Stowell. As coordinator of

garden education, Stowell has grown contact numbers from last year and nearly doubled revenue that benefits education programming, Hamilton said.

"Offering new camps and new programs takes resources, and gifts like this one go a long way to help provide more opportunities, especially for children and youth."

-Derrick Stowell

Joe Prestigiacomio, store manager for the new Publix at Cumberland Avenue, spoke to a group attending a "Dirty Jobs" camp where children learn about composting and the impact that mineral-rich soils can have on gardening. Prestigiacomio emphasized the importance of rich soils to growing good fruits and vegetables and gave each camper fresh fruits and vegetables to take home.

Publix philanthropic priorities have a big focus on children and youth and their education. UT Gardens education programs help educate youth on where their food comes from and the importance of the land for feeding the world, Stowell said.

Stowell hopes to continue identifying individual, corporate, and industry support for his programs. "The more kids we can reach the better off we will be," Stowell said. UT Gardens education programs benefit nearly 3,000 people annually.

Other camps and events include Books & Blooms and garden-to-table camps for kids where they learn about how foods grow to become edible and nutritious. To learn more about how you can support UT Gardens education programs, contact Tom Looney at tom.looney@tennessee.edu.

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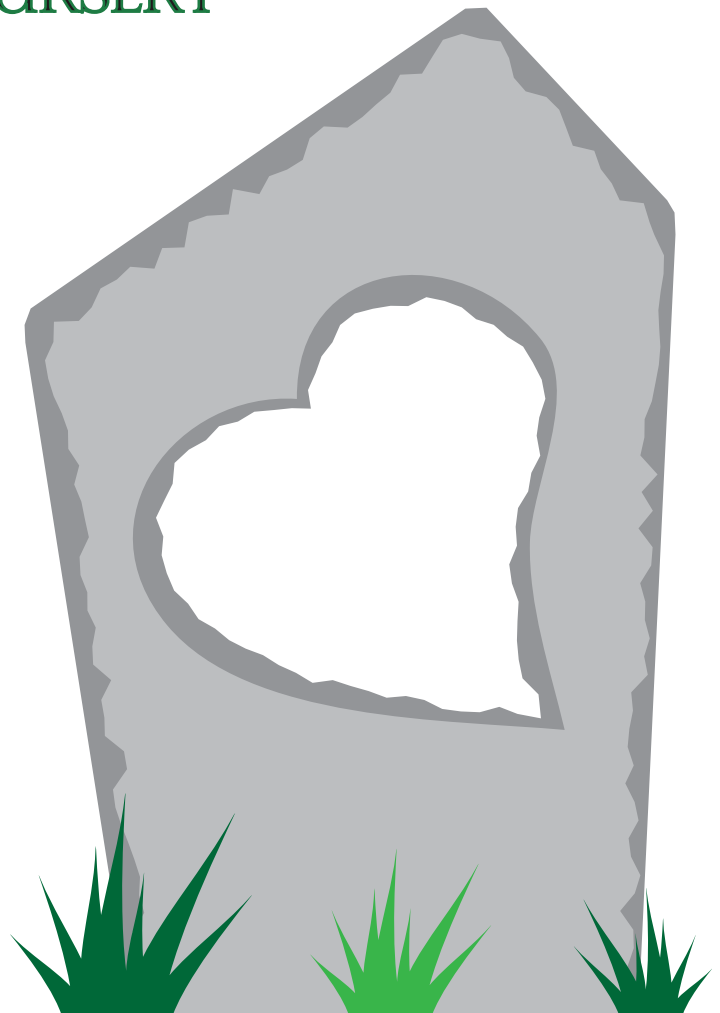
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