

The background of the cover is a lush garden scene. In the foreground and middle ground, there are numerous pink coneflowers (Echinacea) with dark red centers. Interspersed among them are tall, slender purple spires of flowers, likely Salvia or a similar species. The foliage is green and dense. The overall lighting is bright, suggesting a sunny day.

# The American GARDENER®

The Magazine of the American Horticultural Society

May / June 2011

Less Lawn,  
More Groundcovers

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American Chestnut

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Summer's  
Blazing Stars

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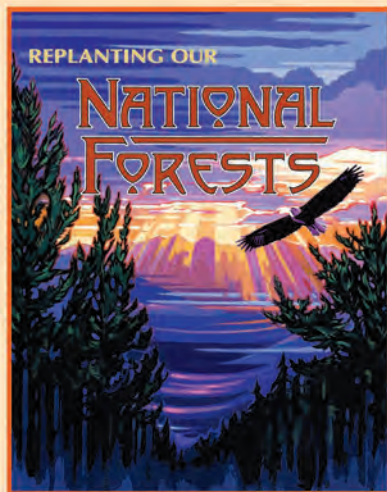
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## NOTES FROM RIVER FARM

**A**LTHOUGH THE weather over the past couple of months has not always been very springlike, at least in the mid-Atlantic, we have definitely felt the onset of the busy gardening season here at River Farm. The property is bursting with fresh green growth and bright colors, and large groups of visitors are coming to enjoy the beauty of the gardens. Our calendars have not only been full of American Horticultural Society activities, but we have also found ourselves caught up in the rush of spring shows, meetings, and programs.

In March, we participated in the Philadelphia International Flower Show, where “Springtime in Paris” attracted tens of thousands of visitors. Our own AHS President’s Council trip to Houston included a preview of Mercer Arboretum’s popular March Mart and a very special visit to the garden of former President George H.W. Bush and his wife, Barbara. At River Farm, our lineup of April activities included the annual Spring Garden Market and an Earth Day celebration for families.

Also at River Farm, we have been focusing on our “By the Foot” Campaign in support of necessary infra-

structure upgrades at our national headquarters. While we have been incredibly fortunate to be able to base the AHS at this beautiful and historic 25-acre property along the Potomac River since 1974 (as detailed in a wonderful article about the history of River Farm in the January/February issue of *The American Gardener*), we are now facing the need for some major improvements to our water and sewer system and communications technology. The response to our call for support has been heartwarming, and if you have not already participated, please look for details about how you can help on page 11.

To get your summer off to a rousing start, this issue of the magazine offers a blend of inspiration, thoughtful analysis, and practical information. Kelly D. Norris provides insight into the gardening interests and habits of the next generation of gardeners. For those interested in iconic American trees, Marty Ross chronicles the improbable comeback of the American chestnut. And those of you looking for ways to reduce or eliminate lawns will appreciate Kris Wetherbee’s regional recommendations for lawn alternatives.

There’s a great deal more, so please turn the page and get started. Enjoy, and happy gardening!

Harry Risetto, Chair, AHS Board of Directors  
Tom Underwood, Executive Director



Children enjoy Earth Day activities at River Farm in April.



### CONTACTS FOR AHS PROGRAMS, MEMBERSHIP BENEFITS & DEPARTMENTS

For general information about your membership, call (800) 777-7931. Send change of address notifications to our membership department at 7931 East Boulevard Drive, Alexandria, VA 22308. If your magazine is lost or damaged in the mail, call the number above for a replacement. Requests for membership information and change of address notification can also be e-mailed to [membership@ahs.org](mailto:membership@ahs.org).

**THE AMERICAN GARDENER** To submit a letter to the editor of *The American Gardener*, write to The American Gardener, 7931 East Boulevard Drive, Alexandria, VA 22308, or send an e-mail to [editor@ahs.org](mailto:editor@ahs.org).

**DEVELOPMENT** To make a gift to the American Horticultural Society, or for information about a donation you have already made, call (800) 777-7931 ext. 127 or send an e-mail to [development@ahs.org](mailto:development@ahs.org).

**E-NEWSLETTER** To sign up for our monthly e-newsletter, visit [www.ahs.org](http://www.ahs.org).

**INTERNSHIP PROGRAM** The AHS offers internships in communications, horticulture, and youth programs. For information, send an e-mail to [education@ahs.org](mailto:education@ahs.org). Information and application forms can also be found in the River Farm area of [www.ahs.org](http://www.ahs.org).

**NATIONAL CHILDREN & YOUTH GARDEN SYMPOSIUM** For information about the Society’s annual National Children & Youth Garden Symposium, call (800) 777-7931 ext. 132 or visit the Youth Gardening section of [www.ahs.org](http://www.ahs.org).

**RECIPROCAL ADMISSIONS PROGRAM** The AHS Reciprocal Admissions Program offers members free admission and other discounts to more than 250 botanical gardens and other horticultural destinations throughout North America. A list of participating gardens can be found in the Membership area of [www.ahs.org](http://www.ahs.org). For more information, call (800) 777-7931 ext. 119.

**RIVER FARM** The AHS headquarters at River Farm is open 9 a.m. to 5 p.m. weekdays year-round (except Federal holidays), and 9 a.m. to 1 p.m. Saturdays from April through September. Admission is free. For information about events, rentals, and directions, visit the River Farm section of [www.ahs.org](http://www.ahs.org).

**TRAVEL STUDY PROGRAM** Visit spectacular private and public gardens around the world through the Society’s acclaimed Travel Study Program. For information about upcoming trips, call (800) 627-6621, send an e-mail to [ahs@macnairtravel.com](mailto:ahs@macnairtravel.com), or visit the Travel Study section of [www.ahs.org](http://www.ahs.org).

**WEBSITE: [www.ahs.org](http://www.ahs.org)** The AHS website is a valuable source of information about the Society’s programs and activities. To access the members-only section of the website, the user name is **garden** and the password is **ahs2011**.

## MEMBERS' FORUM

### ANOTHER PRONUNCIATION RESOURCE

In the January/February 2011 issue, AHS member Eunice Swain asked about good books that have pronunciations for scientific plant names. I recommend the *Dictionary of Plant Names* by Allen J. Coombes (Timber Press, 2005). It contains pronunciations, botanical names, and their common name equivalents.

*Jennifer Ewing  
Port Orford, Oregon*



### HOPS SPRING ETERNAL

In the article "Garden Secrets," published in the March/April issue, the authors, Susan Morrison and Rebecca Sweet, recommend golden hops (*Humulus lupulus*

'Aureus') as a fast-growing annual vine to grow up a utility pole [shown above]. Yikes! I planted one to grow over an ugly

fence and it came up all over the place and nearly took over my flower garden. It took me years—and herbicides, which I rarely use—to get rid of it. It's certainly *not* an annual and you cannot simply dig it up. It's a beautiful vine and lovely in the right place—probably best in a site where you mow around it frequently to keep it under control.

*Mary Ann McLeod  
Wilmington, Vermont*

### HOGAN ARTICLE PLEASES

I just finished reading the article on Sean Hogan (March/April 2011) and I wanted to thank author Kym Pokorny and photographer Josh McCullough for collaborating on this warm and witty profile. The photos brought me into the atmosphere of Sean's world, and the beautifully and engagingly written story helped me to know Sean better as a plant explorer, designer, and person—it was truly a wonderful article!

*Lauren Hall-Behrens  
Portland, Oregon*

### Real Life: Your Thoughts on Soil Testing

Every gardening reference recommends gardeners get their soil tested before installing a new garden. We recently asked our Facebook fans if they think soil tests are actually helpful for the home gardener, and here's what they had to say:

**Steve Stolzenburg:** It depends on where you live. If you do not rotate your garden, it should be tested. Other than that, it should be okay if you add grass clippings that have not been sprayed with chemicals, or other organic matter.

**Renee Beaulieu:** The typical soil test results seem to be geared more towards lawn-growing than anything else. (Yeah, I know I need lime for a decent lawn in the Northeast. No surprise there.) I know it's heresy, but I don't think a test is terribly helpful.

**Susan Gaul:** You should only test if it provides information to solve a problem. For example, "Should I put my wood ashes (or sulfur, or magnesium sulfate or...) on my vegetable garden?" or "Why are my oaks chlorotic?" I would say the test is not that useful for the average home gardener, but if you plan on dumping on lots of chemicals (especially on a lawn), a test could save you a lot of money and save the environment a lot of damage.

**Dave Phillips:** I haven't had a soil test in 60 years here in my garden. Everything works well and I have no plans for a test in the future.

**Jan Jensen:** I've never had a soil test either. I use only compost, biosolid soil mix, and leaves, and determine the health of my soil by texture and appearance, including the presence of worms. Everything grows very well.

**Steven McKay:** It can be a good idea if you have just moved someplace new, where your old assumptions may no longer be valid.

**Mike Burke:** I live in the Los Angeles area and recently ripped out my entire front lawn (about 20 feet by 20 feet) in order to put in a veggie garden. Not sure I really need a soil test. I like the idea of going with organic compost. Any other suggestions?



Join the conversation on the American Horticultural Society's Facebook page! Go to [www.facebook.com/americanhorticulturalsociety](http://www.facebook.com/americanhorticulturalsociety) and click "Like."

### SHEDDING LIGHT ON POWDERY MILDEW CONTROL

In the January/February 2011 issue's Gardener's Notebook, the article "Enlightened Ways to Control Powdery Mildew" mentions that "as little as one hour of red light exposure prevents mildew from making spores so it can't spread." There is no mention made about the method used to create the red light exposure. Is there somewhere I could get additional information on this?

*Carol DeVries  
Marne, Maine*

**Editor's response:** In the study that found that red light can help control powdery mildew on roses, the plants were exposed to light from red LED bulbs.

**PLEASE WRITE US!** Address letters to Editor, *The American Gardener*, 7931 East Boulevard Drive, Alexandria, VA 22308. Send e-mails to [editor@ahs.org](mailto:editor@ahs.org) (note Letter to Editor in subject line). Letters we print may be edited for length and clarity.



# THE AMERICAN HORTICULTURAL SOCIETY TRAVEL STUDY PROGRAM 2011 TOURS



## Gardens and Innovation: Chicagoland and Rockford August 17–21, 2011

with AHS Host Katy Moss Warner and AHS Tour Escort Maren Seibert

■ Discover the horticultural abundance that the Chicago area offers during this tour of the innovative gardens that have contributed to the greening of Chicago. Among these are the Lurie Gardens in Chicago's Millennium Park, the world-renowned Chicago Botanic Garden, and Garfield Park Conservatory. We will also visit several stunning private gardens, award-winning gardens in Rockford, Illinois, and the trial gardens at Ball Horticultural Company's headquarters.

**2011 trips  
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## Castles and Gardens of Bohemia and Moravia September 25–October 6, 2011

with AHS Host Kurt Bluemel and

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■ We begin this trip to the Czech Republic in the capital city of Prague, renowned for its castles and cathedrals. From there we will venture to the historic and picturesque regions of Bohemia and Moravia. Experience a wealth of gardens in styles ranging from formal Italianate, Renaissance, and Baroque to Neo-classical and modern—including several 20th-century gardens created by visionary designers.



## COMING SOON! 2012 Travel Destinations

The AHS's Travel Study Program will be bound for three exciting destinations in 2012. Start planning now for next year's trips!

Late March/early April—**Gardens of San Diego**

Late June/early July—**Midsummer Gardens and Castles of Sweden**

Late October/early November—**Andalusian Heritage and Gardens: Seville, Cordoba, and Granada**

Full travel itineraries will be available later this summer.

For more information about upcoming tours in the AHS Travel Study Program, please contact our travel partner, MacNair Travel: • E-mail: [ahs@macnairtravel.com](mailto:ahs@macnairtravel.com) • Call: (866) 627-6621 • Visit: [www.ahs.org](http://www.ahs.org)



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## News from the AHS

May / June 2011

PROGRAMS • EVENTS • ANNOUNCEMENTS

### SHOP FOR SEEDS AND PLANTS, SUPPORT THE AHS

EVERYBODY FEELS good when they give. Now you can give and receive at the same time, thanks to Renee's Garden seed company. When you make purchases from [www.reneesgarden.com](http://www.reneesgarden.com), you can designate 25 percent of the cost of your order to go to the American Horticultural Society by entering FR661A in the coupon code box on the checkout page.

Renee's Garden, known for the hand-painted watercolor images on its seed packets, sells heirloom, open-pollinated, and hybrid seeds of vegetables, flowers, and culinary herbs. "The fundraiser works because people are going to garden regardless,"

says the company's founder and owner **Renee Shepherd**. "This way they can support an organization they believe in through purchases they were going to make anyway."

If your garden shopping list includes bulbs and herbaceous perennials, you can also support the AHS when purchasing through Bloomin' Bucks with Brent and Becky's Bulbs. Go to [www.bloominbucks.com](http://www.bloominbucks.com) and choose the American Horticultural Society from the list of organizations, then start browsing for bulbs. Twenty-five percent of your total purchase will be donated to the Society.



### HOUSTON GARDENS HIGHLIGHTED IN PRESIDENT'S COUNCIL TRIP

THE ANNUAL AHS President's Council Trip, an exclusive tour of gardens in select regions of the United States, was particularly special this year; the trip to Houston, Texas, included a visit to the private garden of former U.S. President **George H. W. Bush** and his wife, **Barbara**.

The Bushes' garden was among several unique private gardens included in the March 23 to 27 trip, led by AHS Board member and garden author **Gay Estes**. Participants also visited a number of public gardens in the greater Houston area, such as Peckerwood Garden, Mercer Arboretum and Botanic Gardens, and Bayou Bend Collection and Gardens.

For additional information on how to become an AHS President's Council member and the included benefits, send an e-mail to [development@ahs.org](mailto:development@ahs.org) or call (703) 768-5700, ext. 123.



Among the many highlights of the AHS President's Council trip to Houston in March was a visit to the home and garden of former President George H. W. Bush and his wife, Barbara, who are seated in the center in this group picture.



## FLOWER SHOW AWARD HIGHLIGHTS

THIS YEAR THE AHS's Environmental Award was presented at 35 participating garden and flower shows across the country. The award is given to exhibits that demonstrate how the art of



**"At Day's End" by Mark Cook Landscape & Contracting of Doylestown, Pennsylvania, received the AHS Environmental Award at the 2011 Philadelphia International Flower Show this spring.**

horticulture can be used to promote environmental sustainability. AHS Member Programs Manager **Maren Seubert** says, "The Environmental Award recognizes and promotes the bond between horticulture and the environment. By raising awareness of this at flower shows, it inspires people to beautify their home and community on a local scale."

At the Philadelphia International Flower Show in March, **Mark Cook Landscape & Contracting** took home the award for its exhibit, "At Day's End," which featured a small cottage surrounded by azaleas, tulips, and a cold frame for growing leafy greens. At the Southern Spring Home & Garden Show in Mount Pleasant, North Carolina, the award went to **Southern Stonescapes** for its display that drew inspiration from the children's classic *The Secret Garden*, creating what judges described as "a garden homeowners could easily recreate."

The Environmental Award program is judged by nationally recognized leaders in fields such as landscape architecture and garden design. Criteria for the award include factors such as the use of non-invasive species, designs that provide for wildlife habitat and water conservation, and overall sustainability.

## UPCOMING REVISED EDITIONS OF AHS GARDENING BOOKS

IN MARCH, an updated edition of the *American Horticultural Society Great Plant Guide* (DK Publishing, 2011) was released. First published in 1998, this is the fourth edition of this diminutive plant guide, which at four-and-a-half-inches wide and five-and-a-half-inches long is designed to be a portable reference gardeners can carry with them to nurseries or flower shows. Retailing at \$14.95, the book covers more than 3,000 plants and includes sections recommending plants for different garden uses.



## Gifts of Note

*In addition to vital support through membership dues, the American Horticultural Society relies on grants, bequests, and other gifts to support its programs. We would like to thank the following donors for gifts received between February 1 and March 31, 2011.*

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## Gala in the Garden

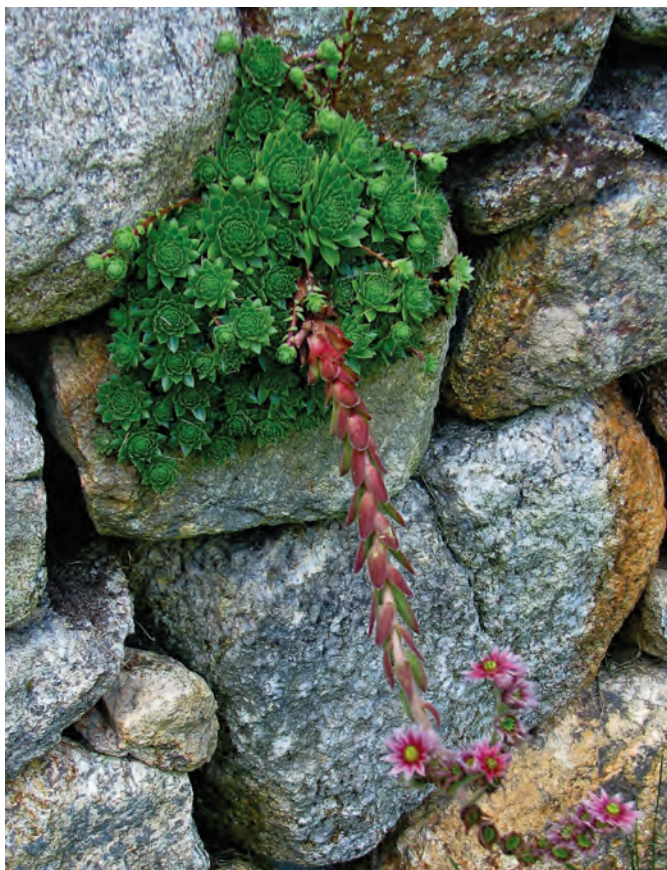
Autumn may seem far away, but experienced gardeners know that early planning pays off. That's why preparations are already underway for the 18th annual Gala, taking place on September 24. This elegant evening will feature al fresco dining and live music in the AHS's River Farm gardens in Alexandria, Virginia. There will also be a silent auction of gardening get-aways and unique items. All proceeds support the stewardship of River Farm and the Society's outreach programs. To reserve your ticket today, contact [development@ahs.org](mailto:development@ahs.org) or call (703) 768-5700 ext. 132. See you at the Gala!

The *Great Plant Guide* was the first of a steady stream of updated editions of books in the popular AHS/DK gardening series to be released this year. Scheduled for publication this summer is the *AHS What Plant When* (formerly issued in 2003 as *AHS Plants for Every Season*), followed in fall by *The AHS Encyclopedia of Plants & Flowers* (last published in 2002), and *The AHS Complete Book of Pruning & Training* (last published in 1996).

All of the AHS book titles are available wherever books are sold and may be ordered through the AHS website ([www.ahs.org](http://www.ahs.org)).

### CALLING ALL GARDEN SHUTTERBUGS

IT'S FREE, IT'S FUN, it's Flickr! Through this photo-sharing website, you can show off your garden or plant shots and connect with other AHS members nationwide. You can also enter the AHS's monthly, themed contests; visit [www.flickr.com/groups/photo\\_of\\_the\\_month](http://www.flickr.com/groups/photo_of_the_month) to learn how and to see previous entries. Winners are published in the AHS's e-newsletter and added to the Society's Flickr "Hall of



AHS EVENTS AND PROGRAMS

## 2011 CALENDAR

Mark your calendar for these upcoming events that are sponsored or co-sponsored by the AHS. Visit [www.ahs.org](http://www.ahs.org) or call (703) 768-5700 for more information.

JUNE 9. **Great American Gardeners Awards Ceremony and Banquet.** River Farm, Alexandria, Virginia.

JULY 21–23. **National Children & Youth Garden Symposium.** East Lansing and Grand Rapids, Michigan.

AUG. 17–21. **AHS Travel Study Trip: Gardens and Innovation.** Chicagoland and Rockford, Illinois.

AUG. 19–21. **The Homestead's 13th Annual "In the Garden with the Experts" Symposium.** Hot Springs, Virginia.

SEPT. 24. **AHS Annual Gala.** River Farm, Alexandria, Virginia.

SEPT. 25–OCT. 6. **Castles and Gardens of Bohemia and Moravia.** AHS Travel Study Program. Czech Republic.

OCT. 6–8. **America in Bloom Symposium and Awards.** Washington, D.C.

OCT. 22. **Dr. Cathey Day—A Celebration of Grandparents.** River Farm, Alexandria, Virginia.

com/groups/photo\_of\_the\_month to learn how and to see previous entries. Winners are published in the AHS's e-newsletter and added to the Society's Flickr "Hall of



Winners of recent AHS Flickr contests included Lisa Riley's photo, far left, illustrating the theme of plants in unlikely places and, left, Dave Shafer's image of an emerging skunk cabbage (*Symplocarpus foetidus*) for the "Signs of Spring" theme.

Fame" gallery. The AHS's Flickr site also offers a place for gardening discussions, and a collection of other garden photos not affiliated with the contests. 

*News written by Editorial Intern Terra-Nova Sadowski.*



AMERICAN  
HORTICULTURAL  
SOCIETY

## MAKING A DIFFERENCE, FOOT BY FOOT

ANNOUNCING THE  
AMERICAN HORTICULTURAL SOCIETY'S

# “BY THE FOOT”

CAMPAIGN

### THE CHALLENGE AT HAND

Thanks to the vision and generosity of philanthropist Enid A. Haupt, the American Horticultural Society has been headquartered for nearly 40 years at River Farm – 25 picturesque and historic acres on the Potomac River just a few miles from our nation’s capital. River Farm has brought tremendous pride to the AHS and enhanced our national outreach capabilities. It has also entailed significant repairs and maintenance that are inevitable with an aging and much used property like River Farm. And we need your help.

### AN INVESTMENT IN TODAY AND TOMORROW

While the AHS annually dedicates resources to the day-to-day operation and maintenance of River Farm, we are currently facing the urgent need to modernize the property’s water and sewer system and upgrade the technological platform. These projects will require an investment of one million dollars, which is far outside the scope of our routine annual operating budget, and we need everyone’s help to reach that goal. When this project is completed, River Farm will have better fire protection, our environmental footprint will be reduced, and we will be better equipped to carry out our mission.

Inch by inch, foot by foot, you can help make a difference for the AHS, River Farm, and our community of gardeners across the country. We need 4,000 feet of pipe and cabling to complete our project. For \$250, you can underwrite a foot of progress and help us in our efforts to maintain and improve the Society’s River Farm headquarters for future generations. **With a contribution of \$250 or more, you will receive a special certificate recognizing your support of the AHS’s By the Foot Campaign.**

American Horticultural Society  
**HELPING GARDENING GROW AWARD**

is presented to

John B. Sample

In appreciation of your generous support of the By the Foot Campaign and the membership of the Society's National Headquarters at River Farm.

Henry Ricotta  
Secretary



Don Underwood  
Don Underwood  
and Executive Director

November 15, 2010

Making America a Nation of Gardeners, a Land of Gardens



*Inch by inch,  
foot by foot...You  
can help gardening grow!*

To underwrite a foot (or feet!), please use the “Help Gardening Grow” envelope included with this issue of *The American Gardener* and note “By the Foot Campaign.” You may also contact the AHS by phone at (703) 768-5700 ext.119 or e-mail [development@ahs.org](mailto:development@ahs.org) Special recognition is available for gifts of 20 feet or more.

## AHS MEMBERS MAKING A DIFFERENCE: Mary Ann Newcomer

by Terra-Nova Sadowski

ANYONE SEEKING information on Intermountain West plants and gardening issues has probably stumbled across Idaho-native Mary Ann Newcomer's name. An AHS member since 1999, 55-year-old Newcomer has become something of a gardening guru in the region through her award-winning blog and her appearances as the "Dirt Diva" on Boise's River Radio, 94.9 FM.

### LENDING A HELPING HAND

Newcomer started out as a private and commercial garden designer, while volunteering as a Master Gardener. Before long, all the questions she was getting as a Master Gardener inspired her to start her blog, [www.gardensofthewildwildwest.com](http://www.gardensofthewildwildwest.com). "The vagaries and extreme swings of the weather can make it really interesting to garden here," says Newcomer. "I wanted to set myself up as a clearing house of information to help people with common questions." The frank yet fun blog was selected as one of *Horticulture* magazine's top garden blogs in 2009.

Partly because of the success of the blog, publishing company Cool Springs Press asked her to collaborate on a book



"Dirt Diva" Mary Ann Newcomer is a regular on Boise, Idaho, River Radio 94.9 FM.

on western native plants. "I never worked so hard on anything," she says of the project, especially since she "wanted so much for the book to be really useful to someone who is just starting out." All her hard work will come to fruition this December when *The Rocky Mountain Gardener's Resource* will be released.

Until then, Newcomer's latest project, an online garden design tool she created

with her business partner, can help users craft a feasible garden layout in under 10 minutes. Newcomer says the tool, found at [www.garden-logic.com](http://www.garden-logic.com), helps gardeners figure out if their particular growing conditions are conducive for the plants they want to install. The program has a database of 280 landscaping plants that Newcomer considers "easy to grow, long-lived, insect impervious, choice plants for the beginning to intermediate gardener."

### HONORING THE SPIRIT OF PLACE

In addition to helping people with their home gardens, Newcomer has lent a hand at the Idaho Botanical Garden (IBG) for two decades. In 2006, the IBG opened the Lewis & Clark Native Plant Garden, which she helped design. Almost all the species recorded by the explorers in the Intermountain West are planted into four sections representative of different habitats. Newcomer spearheaded the creation of a fifth habitat, the home garden.

"We took the plants that are best adapted for cultivation and created a garden people could copy at home," says Newcomer. "We want people to realize some of the new varieties that have been created from native plants are really cool. They're as tough as nails, drought-tolerant, and well-adapted to where we live."

In her own Boise garden, Newcomer's goal is "to be the poster girl for drought-tolerant and water-wise plants." To that end, she has planted her favorite tough natives such as gaillardias and penstemons, as well as plants not usually thought of as water-thrifty. "People don't realize that plants like irises, bleeding hearts, and lilacs were the original drought-tolerant choices to make it across the Oregon Trail," she says.

For Newcomer, it's all about working with the climate and conditions you have rather than the ones you wish you had. "Anyone who gardens for any length of time learns that nature is in charge, and there's certainly no doubt about that in the rowdy Wild West!"



The Western Waterwise Garden in the Lewis & Clark Native Plant Garden at the Idaho Botanical Garden demonstrates how regional natives can make xeric landscapes lush and colorful.

*Terra-Nova Sadowski is an editorial intern with The American Gardener.*



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# Lawn Alternatives

BY KRIS WETHERBEE

Replacing some of your lawn with well-chosen groundcovers can reduce your fertilizer and maintenance needs along with conserving water, energy, and—most of all—your time.

**W**HEN MY husband and I first designed and installed our Mediterranean courtyard garden, we didn't want a traditional lawn flowing between the herb-infused raised beds. Sure, an expanse of thick grass can be a wonderful thing. But so can groundcovers used to replace some or all of a

lawn. Instead of grass, we planted a variety of low-growing thymes that tastefully filled in the wide, curvaceous paths without requiring huge amounts of water, fertilizer, and mowing.

"A groundcover can provide the same visual effect as turf while adding a lot more interest to our immediate sur-

**Thyme makes an attractive, fragrant, and durable groundcover.**

roundings and reducing the negative impact on the environment," says Galen Gates, an adjunct professor at Illinois Institute of Technology and curator of herbaceous plants at the Chicago Botanic Garden in Glencoe, Illinois.

Because water has become a precious commodity in many areas of the country, eliminating or reducing the amount of garden space devoted to turf offers a practical solution to water conservation. "City ordinances are changing nationwide to include low- to no-watering days," says Frances A. Hopkins, president of Under A Foot Plant Company, noted for its STEPABLES line of groundcovers. "Grass requires so much water. Groundcovers and creeping perennials require a lot less water once established."

In addition to water conservation, using appropriate groundcovers as lawn substitutes provides food and cover for birds, insects, and small mammals. Additionally, caring for groundcovers doesn't consume the huge amounts of materials and energy that caring for turf-grasses does.

"The manufacturing of fertilizers utilizes significant quantities of natural gas, a non-renewable source," notes Robert Bowden, director of the Harry P. Leu Gardens in Orlando, Florida. Producing the equipment to maintain turf—such as mowers, spreaders, edgers, and other tools—requires large quantities of steel, which is made from non-renewable resources such as coal and iron. "And," Bowden adds, "think of how much oil and gas is used to transport the fertilizer and equipment to those who buy them." Not to mention the energy required to power that equipment.

If you still need more reasons to consider groundcovers, they provide thick coverage of the soil to block out weeds and most of them spread easily in rocky or shady areas. Plus, what's better than a lawn you don't have to mow?

Groundcovers, whether they are to walk on or for ornamental purposes, are eco-friendly alternatives to tried-and-true turfgrass. "Grass has its place in the world and it does solve a great many problems because of its versatility," notes Hopkins.



Above: This front yard of western sedge (*Carex praeegracilis*) provides the look of a traditional lawn with lower maintenance. Right: *Rhus aromatica* 'Gro-low', here with river birch, is an attractive groundcover, especially in fall.

However, most of us could do with less of it—and perhaps enjoy the results more.

### CHOOSING THE RIGHT GROUNDCOVER

When choosing a groundcover for your garden, be sure to factor in your regional climate, soil type, and landscape needs. Here are some points to consider:

- What is its primary function? Is curb appeal your focus, or do you need a groundcover that can withstand foot traffic? Groundcovers have varying degrees of durability when it comes to being stepped on.
- What will the plant look like during winter? Herbaceous perennials die to the ground in winter; evergreen plants stick around throughout the year.
- Do you want to illuminate a shaded area? Plants with pale leaves or flowers will help brighten shadowy parts of the garden.
- Take into account a plant's growth rate. "A groundcover's sole purpose is to roam and cover," Hopkins says. "You don't want



to be overrun by the plant, but at the same time you don't want to be moving to another house before the groundcover fills in." Some plants take time to establish while others fill in quickly. More aggressive growers, especially mat-forming

types, will outcompete weeds better than slower-growing groundcovers and, as such, may be the best bet for the most visible areas of your yard. However, avoid groundcovers with invasive tendencies.

- Is it native or non-native? Native plants

## REGIONAL RECOMMENDATIONS FOR LAWN ALTERNATIVES

In my Oregon courtyard garden, personal favorites for lawn alternatives include *Verbena* 'Homestead Purple', woolly yarrow (*Achillea tomentosa*), New Zealand brass buttons (*Leptinella squalida*), Irish or Scotch moss (*Sagina subulata*), sweet woodruff (*Galium odoratum*), and baby's tears (*Soleirolia soleirolii*). These all do well in USDA Hardiness Zones 8 to 10, AHS Heat Zones 10 to 7, but they might not fare well in cooler regions. So I asked experts from different parts of the country to weigh in on their favorite groundcovers that can be successfully used to reduce or replace lawns. —K.W.

### NORTHEAST / MID-ATLANTIC

Maine-based Paul Tukey, author of the *Organic Lawn Care Manual* and founder of SafeLawns.org recommends these high-performing groundcovers.

**Bearberry** (*Arctostaphylos uva-ursi*) is a beautiful and durable groundcover native to a broad swath of North America. Low-growing and initially somewhat slow-growing, it will eventually form a wide mat. The cultivar 'Vancouver Jade' is faster growing than the species. Self-sufficient once established, bearberry grows best in part shade. It tolerates wind, can handle slopes, and is suited for areas that get light to moderate foot traffic.



**Goldmoss sedum** (*Sedum acre*) spreads quickly and is ideal for walkways because it can take a reasonable amount of foot traffic. Drought, wind, and salt tolerant, this low-maintenance plant forms a ground-hugging mat accentuated by bright yellow blooms in early summer. It grows best in part to full sun. **Lemon thyme** (*Thymus × citriodorus*) is about as self-sufficient as it gets. It tolerates drought, wind, and sloping terrain. Most fragrant and flavorful when grown in dry, lean soil, it prefers part shade to full sun and produces pink or purple blooms in early to late summer. Plants may rot where soil is too moist.

### MIDWEST

Galen Gates, curator of herbaceous plants at the Chicago Botanic Garden in Glencoe, Illinois, offers this list of groundcovers suited to midwestern gardens.

**Barren strawberry** (*Waldsteinia ternata*) is a semi-evergreen with yellow flowers in early spring. Virtually maintenance-free, it forms a dense mat of shiny leaves somewhat resembling



those of strawberry. This dense and extremely low-spreading groundcover performs best in light shade to sun.

**Barrenwort** (*Epimedium* spp.) is a welcome harbinger of spring. This semi-evergreen plant, with its jester-hat flowers, is ideal for any shady area. A number of selections sport fall color.

**Fragrant sumac** (*Rhus aromatica* 'Gro-low') is a native plant with year-round fragrance from its leaves and late, great fall color. It's wonderful for a larger scale landscape, especially where soil is poor or dry. 'Gro-low' grows two to three feet tall and spreads six to eight feet wide.

**Geranium × cantabrigiense** is a phenomenal hybrid geranium that has long-lasting purplish flowers, fragrant foliage, and fall color. An evergreen perennial, it spreads slowly but widely and grows six to eight inches high.

**Japanese pachysandra** (*Pachysandra terminalis*) has its place in this rough climate where its evergreen quality and early fragrant flowers are a real boon following a long winter. It grows best in part shade but withstands heavy shade and tolerates foot traffic.

### NORTHERN CALIFORNIA AND PACIFIC NORTHWEST

Based in Salem, Oregon, Frances A. Hopkins, president of Under a Foot Plant Company, recommends these plants that are included in the company's line of STEPABLES groundcovers.

**Blue star creeper** (*Isotoma fluviatilis*) is perfect as a lawn substitute or between pavers in part to full sun. Resilient and fast-growing, it grows tight to the ground and produces a profusion of tiny blue flowers all summer.

**Brass buttons** (*Leptinella squalida*) is a fast-growing lawn substitute for small areas. Chocolate-purple, fernlike leaves feel soft on bare feet, and the mass of tiny, yellow, buttonlike flowers creates a carpet of color in late spring. It grows best in



part shade and tolerates moderate foot traffic.

**Creeping speedwell (*Veronica repens*)**

'Sunshine' is a standout selection that has bright yellow, spreading foliage. It is evergreen in temperate climates or protected areas. Pearly

blue flowers bloom in mid-spring. Best in full sun, its growth rate is moderate and it tolerates a modest amount of foot traffic.

**Thymes (*Thymus* spp.)** are excellent groundcovers. *Thymus serpyllum* 'Elfin' is a favorite for its tight, solid mat of gray-green foliage that stays put and doesn't roam beyond its parameters. Growth rate is slow, but it will take heavy foot traffic, so it's an ideal choice for filling in the spaces between stepping stones and pavers.

**SOUTHWEST/MOUNTAINS**

David Salman, president and chief horticulturist at Santa Fe Greenhouses Inc. (home of High Country Gardens) in New Mexico offers this list of terrific turf replacements.



**Ice plant (*Delosperma ashtonii* 'Blut')** forms a nice flat mat of evergreen foliage punctuated all summer-long with deep magenta-red flowers that are most intensely colored when grown in a hot and dry location. Use a gravel mulch to keep crowns dry. This plant is an excellent nectar and pollen source and very drought tolerant, but cannot withstand foot traffic.

**Lamb's ear (*Stachys byzantina* 'Countess Helen von Stein', syn. 'Big Ears')** is a dense, mounding, large-leaved version of common lamb's ear prized for its fuzzy, gray-green foliage. It is easily grown in any average to poor garden soil that has good drainage. It tolerates drought, but only very light foot traffic.



**Snow-in-summer (*Cerastium tomentosum*)** is a standout where turf struggles, forming a drought-tolerant carpet of silver-gray foliage. It's a fast grower that tolerates moderate foot traffic and produces fragrant flowers in late spring to early summer.

**Sweet woodruff (*Galium odoratum*)** forms a dense, beautifully-textured layer of ornamental foliage. This shade-lover spreads rapidly when grown in rich soil with abundant moisture. It won't tolerate foot traffic so is best grown for visual interest.

**Yellow archangel (*Lamium galeobdolon* 'Hermann's Pride')** provides a mound of pleasing textures and variegation for the partly shady garden. More behaved than the species, this cultivar slowly spreads to form dense clumps heightened by whorls of yellow flowers in spring. It is an excellent nectar and pollen source for honeybees, and tolerates very light foot traffic.

**SOUTHEAST**

Robert Bowden, director of the Harry P. Leu Gardens in Orlando, Florida, suggests the following lawn alternatives with interesting foliage and appealing texture.

**Asiatic jasmine (*Trachelospermum asiaticum*)** is one of the best groundcovers for southern gardens. It features a dense, low habit, extreme drought tolerance, and diversity of leaf sizes and colors. You can practically plant it and walk away. The cultivar 'Tricolor', which Bowden says is a personal favorite, emerges dark bronze and then changes to mottled green and white.

**Lilyturf (*Liriope* spp.)**, with its clump-forming habit and tufts of evergreen, grasslike leaves, works great as a smaller-scale groundcover in sun or shade and almost any type of soil. *Liriope muscari* 'Monroe White' is one of the best selections with its pure white flowers. 'Emerald Goddess' and 'Super Green Giant' are both resistant to crown rot.

**Prostrate Japanese plum yew (*Cephalotaxus harringtonia* 'Prostrata')** is perfect in semi-shade to deep shade. A single specimen of this durable low-growing evergreen will completely blanket a four-foot-by-four-foot area in little time.

**Toad lilies (*Tricyrtis* spp.)** perform differently in the south than in northern climes in that they "colonize" or form a low groundcover rather than grow as tall perennials. Their spreading foliage makes them ideal groundcovers for moist areas. *Tricyrtis hirta* 'Emperor' and 'Variegata' are brightly-colored selections that grow best in part to deep shade with rich soil.





Fast-growing blue star creeper stays low to the ground and features blue summer flowers.

that are adapted to your area are more likely to resist insects and disease. Non-native plants may require more care, and some could be potentially invasive.

- Be sure the plant is suited to the conditions of your site, such as exposure to sunlight, soil type, temperature extremes, and natural moisture levels. Proper siting will minimize maintenance.

- Don't forget maintenance. Established groundcovers require much less care than turf but are not maintenance free. How much fertilizing, mowing, weeding, etc. will each type require and how much are you willing to do? Some groundcovers need less maintenance than others.

For regional recommendations for groundcovers, see pages 16 and 17.

### SITE SELECTION AND PREPARATION

Any area where mowing is difficult or turf isn't doing well is a prime location for trying a lawn alternative. Common problem areas include narrow or curvaceous strips of grass between flower beds, difficult-to-mow-around objects, shady areas beneath trees or shrubs, and places that are hard to maintain or not easy to access.

Once you've decided on what areas you want to replant with lawn alternatives, you'll need to remove turf and other existing vegetation. This can be

## Resources

**Covering Ground** by Barbara Ellis. Storey Publishing, North Adams, Massachusetts, 2007.

**Perennial Ground Covers** by David S. MacKenzie. Timber Press, Portland, Oregon, 1997.

**The Wild Lawn Handbook: Alternatives to the Traditional Front Lawn** by Stevie Daniels. Macmillian Publishing, New York, New York, 1995.

## Sources

**Bluestone Perennials**, Madison, OH. (800) 852-5243.

[www.bluestoneperennials.com](http://www.bluestoneperennials.com).

**Digging Dog Nursery**, Albion, CA. (707) 937-1130.

[www.diggingdog.com](http://www.diggingdog.com).

**Forestfarm**, Williams, OR. (541) 846-7269. [www.forestfarm.com](http://www.forestfarm.com).

**High Country Gardens**, Santa Fe, NM. (800) 925-9387.

[www.highcountrygardens.com](http://www.highcountrygardens.com).

**Stepables**, Salem, OR. (503) 581-8915. [www.stepables.com](http://www.stepables.com).

**Well-Sweep Herb Farm**, Port Murray, NJ. (908) 852-5390.

[www.well-sweep.com](http://www.well-sweep.com).

**Whitney Gardens**, Brinnon, WA. (800) 952-2404.

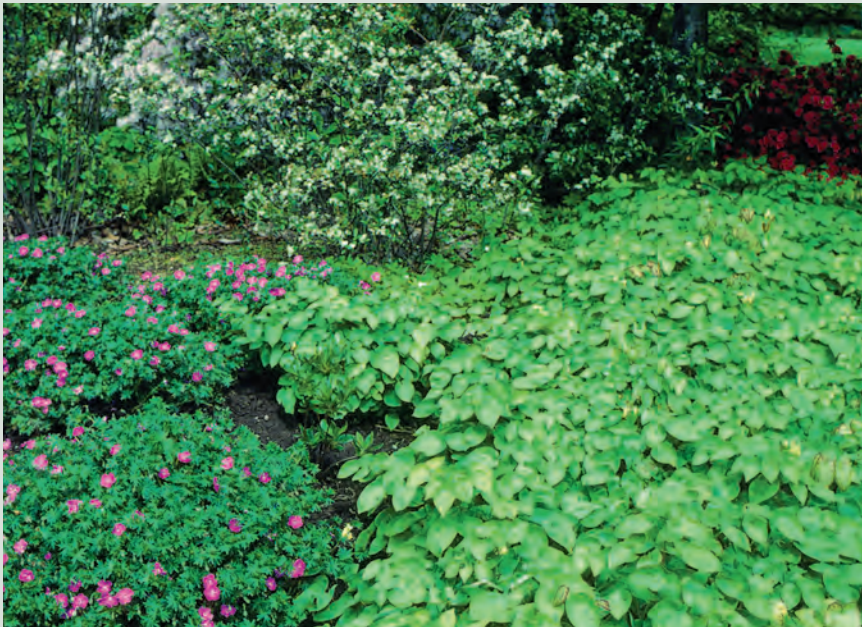
[www.whitneygardens.com](http://www.whitneygardens.com).

done a number of ways. You can use a sod cutter (available from an equipment rental company), remove grass by hand-digging with a spade, or repeatedly rototill the area well in advance so vegetation can decompose. For best results, any hand-digging or rototilling should be done down to a depth of eight to 12 inches. Other ways to clear an area of grass for groundcover include smothering the grass with layers of newspaper under an anchoring cover of compost or grass clippings, and solarizing—baking the grass with the sun's heat by covering the area with clear plastic sheeting. These last two methods may require several months to do the job, depending on the time of year and weather conditions, but they are effective.

"It is always important to prepare the soil with adequate quantities of compost and natural or organic fertilizers," says

## DESIGN TIPS FOR GROUNDCOVERS

- Make your alternative lawn more beautiful and cut down on maintenance time by grouping plants together that have similar cultural requirements, such as sun, water, and soil. “Don’t be afraid to experiment,” says Galen Gates. “You can plant more than one plant in the same location.”
- David Salman suggests planting different species of groundcovers together in large patches adjacent to each other for a dramatic effect.



Large patches of cranesbill and barrenwort together provide a pleasing contrast of textures.

- For the quickest coverage, Frances Hopkins recommends spacing plants according to growth speed rather than generalized spacing charts. Fast-growing plants can be spaced at 12 inches; some of the slower ones can be spaced at four inches.
- Extend the seasonal appeal of any groundcover with pops of color by planting spring- or summer-blooming bulbs in the gaps between plants, where practicable.
- For shady areas with wet, acidic soil, consider a non-traditional groundcover such as moss (For more on growing a moss garden, see “Carefree Moss” in the November/December 2010 issue of *The American Gardener*.) Other candidates for these conditions include Corsican mint (*Mentha requienii*), creeping jenny/golden creeping jenny (*Lysimachia nummularia*; *L. nummularia* ‘Aurea’), Kenilworth ivy (*Cymbalaria muralis*), dwarf Himalayan sweetbox (*Sarcococca hookeriana* var. *humilis*), and sweet woodruff (*Galium odoratum*).
- If the look of grass is important to you, consider these grasses and grasslike groundcovers: lilyturf (*Liriope* spp.), tufted hair grass (*Deschampsia caespitosa*), fescues (*Festuca* spp.), mondo grass (*Ophiopogon* spp.), and sedges (*Carex* spp.). Many sedges are tough enough to take foot traffic, and there are numerous species native to different regions of North America. —K.W.

David Salman, president and chief horticulturist at Santa Fe Greenhouses, Inc., home of High Country Gardens in New Mexico. “If the lawn being replaced has been heavily treated on a long-term basis with a ‘weed and feed’ fertilizer/herbicide, it might be a good idea to check for resid-

ual herbicides by doing a small test planting.” If the planting succeeds, then a larger area can be turned over to groundcovers. If the test planting does not produce positive results, it might be necessary to wait a year or two for the residual chemicals to dissipate, degrade, or wash away.

Once the site is prepared, level the area with a rake and plant soon after, before weeds can resprout or germinate on the bare soil. Thoroughly mulching the soil after planting will help prevent weeds from popping through.

Paul Tukey, author of the *Organic Lawn Care Manual* and founder of SafeLawns.org—a leading organic-lawn advocacy organization—recommends planting new groundcovers through a layer of newspaper mulch. Simply lay sections of newspaper about six pages thick on the prepared soil, cut openings through it for planting, then cover the newsprint with a two- to three-inch-thick layer of topsoil/compost mixture. “This will keep the rhizomatous weeds from creeping up through the soil while the groundcover is getting established,” says Tukey. “Any weeds that do germinate above the newspaper can easily be plucked out.”

Tukey also suggests using a weed barrier placed several inches down into the soil that separates the planting beds from any grass. That way any aggressive groundcovers will be discouraged from overtaking the lawn.

## ESTABLISHING AND MAINTAINING GROUNDCOVERS

As with any new planting, give special attention to groundcovers the first year by providing adequate water during this establishment phase. Once established, they will need occasional watering, fertilizing, weeding, and pruning, depending on the plant type.

An easy way of deadheading many groundcovers is to mow them. “Set the lawn mower deck on a high setting so the old flowers are removed but not the foliage,” Salman explains. “An early or mid-spring mowing of the groundcover may be needed to remove foliage damaged by winter and encourage fresh new growth.

So go ahead and break away from the traditional lawn with groundcovers. The result will surely be anything but ordinary. And if all goes as planned, your groundcovers will grow into a thriving and tantalizing spread of color and texture that you’ll actually have time to enjoy. ☺

*A freelance writer and book author, Kris Wetherbee gardens in Oakland, Oregon.*

# *next-generation* Gardeners

As the baby boom generation ages, the horticultural world is attempting to gauge the habits—and purchasing power—of the next wave of potential gardeners.

BY KELLY D. NORRIS

FOR THE LAST several years, as baby boomers officially started hitting retirement age, the gardening world has been anxiously analyzing and discussing the gardening habits of people categorized as Gen X (those born in the 1960s and '70s) and Gen Y (those born in the 1980s and '90s). How do they garden? What do they like to grow? How do they get their gardening information? Are people who grew up in a virtual reality world going to cultivate their plants in Facebook's Farmville rather than in their gardens?

Demographics only seem to complicate things. For every adamant adherent of generational stereotypes and marketing data, you can find someone equally convinced of the worthlessness of such generalities and statistics. Bruce Butterfield, market research director at the Vermont-based National Gardening Association, who has 30 years of experience trend-reading in the lawn and garden industry, acknowledges that trying to compare younger gardeners with their baby boomer counterparts is certainly not easy. So how will the upcoming generations affect the gardening industry? No one has a definitive answer, but there's no doubt that a growing population of green thumbs—currently aged 18 to 42—is going to have a profound influence on the way America gardens.

## GOING GREEN

One promising trend revealed by a February 2011 survey released by the Garden Writers Association Foundation (GWAF) indicated that a significant proportion of young people are gardening in some way. According to the survey, when asked if they were growing or taking care of plants, 64 percent of respondents under the age of 40 answered yes.



Environmental awareness motivates many members of the younger generation to garden.

RICK WETHERBEE



Preplanted mixed containers like these at Molbak's garden center in Woodinville, Washington, provide novice gardeners with convenience.

For Benjamin Futa, a 21-year-old horticulture student at Purdue University in West Lafayette, Indiana, gardening was a calling. "Before I even realized it was possible to make it into a profession, I just wanted to do it," says Futa, who's proud to admit he has been getting dirt under his fingernails in one way or another since the earnest age of three.

Like Futa, many young gardeners now in their 20s and 30s grew up with a passionate awareness of the environment and the landscape around them. Optimists hope that the activism and energy of a new generation of environmentally aware young Americans may provide the tipping point for a truly "green" revolution in the garden industry. Some surmise this revolution is already taking place, based on the latest buzzwords in the marketing lexicon—for example, sustainable, ecological,

and locavore. Speculate a little, and it's easy to see the future of gardening dovetailing with an ever-present and palpable sustainability movement, itself the product of eco-consciousness and a retro "back-to-the-land" movement.

"We may have trouble wrapping our heads around saving the rainforests," says Susan McCoy, founder of the Garden Media Group, a Pennsylvania-based marketing and public relations firm that specializes in the gardening industry, "but we clearly can wrap our arms around saving our own backyards."

### A SPACE AND A PURPOSE

Another critical difference between the younger gardeners and their baby boom counterparts is real estate. As a group, baby boomers tend to live in homes with a fair amount of space to garden. Those

in their 20s and 30s, on the other hand, are more likely to live in apartments or townhouses with minimal gardening space. Tim Hamilton, marketing director for Homestead Gardens, an independent garden center in Davidsonville, Maryland, doesn't see this as something to worry about—yet. When it comes to under-40 gardeners, he says, "When they have homes and spaces to garden, we'll see them."

But other horticulture industry observers caution that it's not realistic to expect young people to jump on the gardening bandwagon without a little encouragement. "Gen Ys want a reason. The benefits of gardening need to be specific," says Paige Worthy, a 20-something professional who handles marketing and outreach for the American Nursery and Landscape Association, a trade group for

nurseries and landscaping companies. “The industry has to ask itself—do we want to just sell stuff or do we want to cultivate a passion in our consumers?”

### BUILDING BRIDGES, ADDING VALUE

Finding the spark to ignite that passion is an important challenge. “We’re noticing that young people get a great deal of satisfaction out of growing things and pulling away from conventional methods of gardening,” McCoy says. “Gardening helps them get in touch with the earth,” she adds. The February 2011 GWAFF survey bears this out. For gardeners aged 25 to 40, a sense of satisfaction (72 percent) and working with nature (62 percent) were the two most appealing reasons for



Plants that are both edible and ornamental, such as Swiss chard and pansies, above, are popular with Gen X and Gen Y members who view growing their own food, right, as part of a healthy, earth friendly lifestyle.

growing plants. For the 18- to 24-year-old group, growing their own food (59 percent) was the top reason cited.

With a rapidly changing American food culture and the increased promotion of local foods in restaurants and home kitchens, young gardeners, like generations before them, are entering gardening in pursuit of the home-cooked meal made from homegrown produce—about as local as you can get. “It’s almost as if there was a perfect storm for an increase in food gardening,” notes Butterfield, “not to mention this notion of better-tasting, better-quality food. And who doesn’t love their first ripe tomato? That’s the easiest

thing you can do—whether you have a yard or not—is grow a little food.”

“We first started noticing this trend in 2005,” says McCoy. “Young men ages 18 to 34 were vegetable gardening as much as their grandfathers. That was really the first sign we saw that the younger generation was finding a bridge between cooking and gardening.”

In addition to connecting the kitchen with the garden, “young gardeners like the idea of the practical and aesthetic combined,” observes Brienne Gluvna, a garden designer and propagator at Camellia Forest Nursery in Chapel Hill, North

Carolina. “The major common denominator I see is edibles weaved throughout a mixed garden space that includes ornamentals. For instance, I recommend tea (*Camellia sinensis*) as a shady foundation plant or rosemary for a sunny site; strawberries as a groundcover instead of moss phlox or *Dianthus*; figs as ‘corner’ features in a foundation rather than a holly.”

Rizaniño Reyes, a garden designer from Seattle, Washington, has noticed a similar trend. “The new garden is a multi-faceted landscape complete with a tasteful palette of ornamentals and edibles coupled with an ecological aware-



LEFT: COURTESY OF BONNIE PLANTS. RIGHT: ROB CARDILLO



## BEYOND PLANTS

Aside from the retail arena and landscape design sector, a broad spectrum of horticultural organizations ranging from plant societies to garden clubs and botanical gardens is also coming to grips with attracting upcoming generations of gardeners. For these groups, they are finding innovative ways to reach out to younger audiences in order to enhance visitation and woo prospective members.

For example, at the Atlanta Botanical Garden (ABG), special events such as Thursday-evening cocktails in the garden in the summer and other programs geared toward young professionals help to attract this crowd to the garden. “Gardening is experiential—that’s the key for getting people interested and excited to learn about plants. We’re focusing on plants through creative programming,” says Mary Pat Matheson, ABG’s executive director. “Marketing the fact that the dogwoods are in bloom isn’t enough, because ballgames, art museums, and other life activities get in the way of our message. We have to compete with these other events to be relevant.”

## PLUGGED-IN GARDENING

Communicating and marketing gardening is tough when it comes to this uber-plugged-in, yet seemingly unreachable group. Some industry analysts regard breaking through the texting lingo and social networking framework to get the attention of Gen X and Gen Y as a challenge akin to cracking a code.

However, as generations of gardeners come and go, one thing remains clear—gardening is a content-driven business. “Gardeners of all ages are hungry for information,” says Heims. “We don’t have to throw all the information at them at once, but if they want more, we need to have it available. That’s where the digital world saves the day.”

It might seem obvious that younger gardeners would naturally gravitate toward getting their gardening information online. Yet the GWAF survey indicated that only 44 percent of gardeners under 40 search for gardening information online. By contrast, according to the survey, 87 percent of gardeners under 40 say they received gardening information from friends or family and 69 percent come by gardening know-how from books.

**Above: Public gardens such as Atlanta Botanical Garden in Georgia are attracting young professionals with events such as evening cocktail gatherings. Left: Garden blogger Fern Richardson sees social media as a way to connect with likeminded co-horts.**



ness,” he says. Because of this, he believes “it’s important that horticulturists continue to discover and develop plants that are useful, vigorous, manageable, and beautiful in the landscape.”

And indeed, the horticultural industry is working hard on providing plants with added value. For example, Dan Heims, owner of Terra Nova Nurseries, an Oregon-based plant development company, says “We focus a lot on plants with great foliage because they give a lot more show than plants that bloom for just a few weeks.”

That's not to say that the garden world shouldn't be investing in a vibrant presence in the digital world that the vast majority of Gen X and Y members occupy as some part of their daily lives. "Young gardeners are using social media the way previous generations stuck their head over the fence to chat with their neighbor," says Fern Richardson, a garden blogger at [lifeonthebalcony.com](http://lifeonthebalcony.com). "We're sharing our successes and failures, asking for and receiving gardening help, and offering up extra divisions, seeds, and produce."

To keep up with this kind of immediacy, printed media also needs to adapt to the needs of younger generations. For example, Joseph Tychonievich, a doctoral student in horticulture at Michigan State University who writes a garden blog at [greensparrowgardens.com](http://greensparrowgardens.com), says, "I don't want to pick up a garden magazine to read things that are old and tired or to get basic details. A magazine should be my conduit to things that are off my radar."

Technology is certainly revolutionizing the way gardening information can be delivered. People can download YouTube videos that show how to prune roses or create a rain garden. Social networking sites are enabling gardeners to ask questions of



**Smartphones and mobile technology have made it easy to instantly access gardening information from any location.**

a widespread community of friends and acquaintances. Smartphones can scan barcodes on plant tags to get additional information at once, or download any of the dozens of garden-related apps. "Having information at your fingertips means greater success in gardening," says Hamilton. "The availability of information will really continue to open up this industry and give gardeners the knowledge edge."



**While younger generations may be more plugged into technology than baby boomers, they still prefer learning about gardening from friends and family, like this intergenerational community-garden group in Waukesha, Wisconsin.**


## PASSION FOR SALE

Hamilton, as well as several other industry insiders, believes the garden industry could take a lesson from the food scene, which has evolved tremendously in the last two decades in this country thanks to the popularity of personalities such as Emeril Lagasse and Rachael Ray. Cooking shows, foodie magazines, and the companies that sponsor them have made cooking and eating an intrinsic part of people's overall lifestyle. The same model could be applied to gardening.

But whether it's improving the aesthetics of a house or growing homegrown fruits and veggies, the common factor in all horticultural experiences is plants. One encouraging result of the February 2011 GWAF survey is that under-40 gardeners appear to have a broad interest in plants, with flowers, vegetables, and herbs topping out as favorites, closely followed by trees and shrubs. However, catering to this diverse market without overwhelming new, younger gardeners can be a fine balance.

"Intimidation drives customers away, and then we've lost an opportunity to work with them," says industry analyst Lloyd Traven. For instance, botanical names and horticultural jargon can be turn-offs, says McCoy of the Garden Media Group. "They don't want to walk into a garden center and feel foolish because they can't pronounce the name of the plant," says McCoy. "With new gardeners, you can't get too bogged down in the particulars—they just want to know how to do it."

When it comes to shopping for plants, members of Gen X and Y tend to have a solutions-based attitude—the desire for something colorful on the patio or plants for a wet spot in the backyard. Perhaps as a result, pre-designed gardens and pre-planted containers have become popular options as a way to ease these newcomers into gardening.

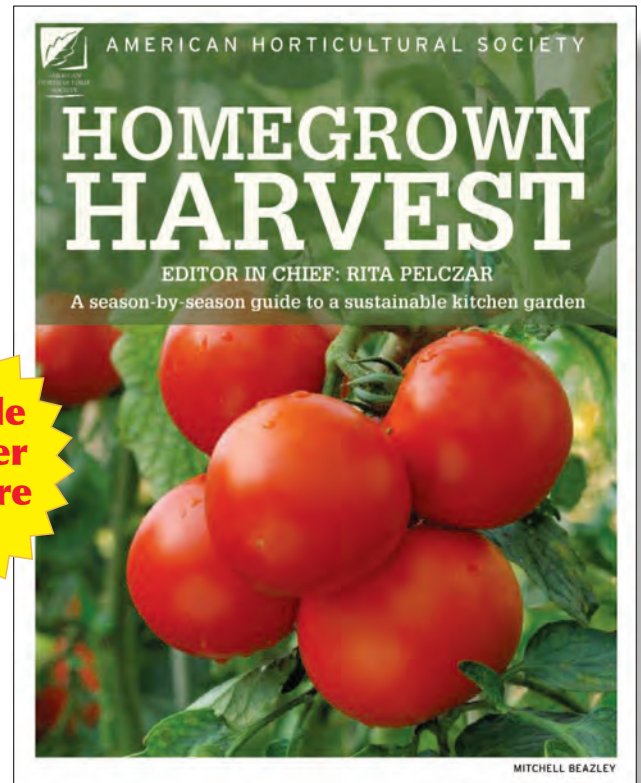
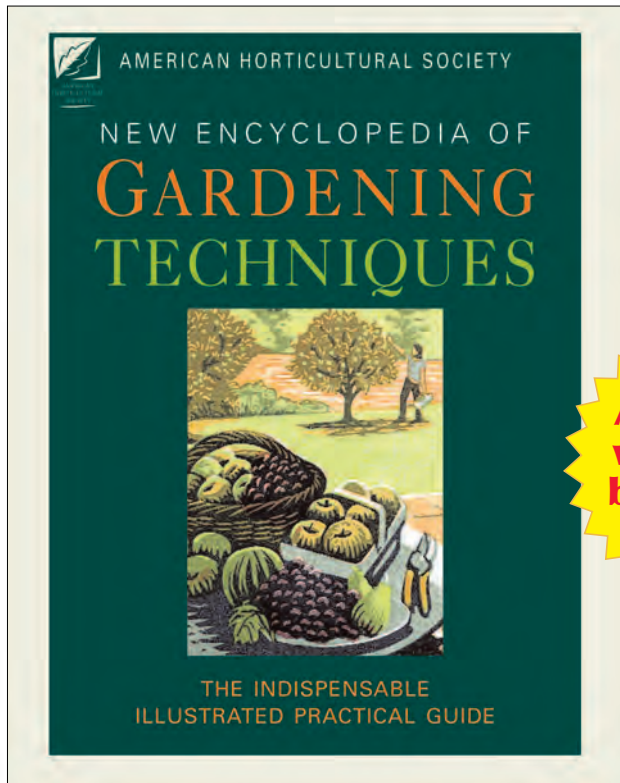
"They want to come in, get wowed, excited, and leave ready to dig," says Traven. "Those customers come in for a reason and buy something that fulfills a need—it's passion for sale." 

*A Gen-Y himself, Kelly D. Norris is working on a Master's degree in horticulture at Iowa State University. He is also manager of Rainbow Iris Farms and editor of Irises, the bulletin of the American Iris Society.*



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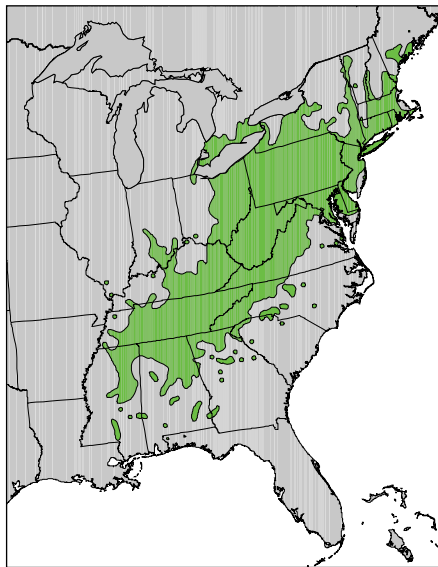


# *the return of the* American Chestnut

Mark your calendar for about 50 years from now. By then, we'll know for sure whether the dedicated efforts of scientists to save the American chestnut tree have paid off. BY MARTY ROSS

**U**NTIL CHESTNUT BLIGHT, a deadly and persistent fungal disease, was introduced to North America from Asia some time in the late 19th or early 20th century, the American chestnut (*Castanea dentata*) was a king of the eastern deciduous forest. Mature trees lived for hundreds of years and attained heights of up to 100 feet. They were, however, no match for the blight, which ripped through the forests upon arriving on American shores. Asian chestnuts had evolved together with the blight and were resistant to it, but American chestnuts had no such immunity. In under 50 years—a period of time that wildlife ecologist Douglas Tallamy describes as “overnight, ecologically”—four billion chestnut trees of enormous proportions, 25 percent or more of the forests, sickened and died.

Foresters from the Connecticut Agricultural Experiment Station amid a stand of 50-year-old American chestnuts in Harwinton, Connecticut, in 1910.



nuts died, “starvation was rampant among the big vertebrates,” he says.

Today, in the natural range of the American chestnut, along the Appalachian Mountains from Maine to Georgia, gigantic chestnut trees live only as legends. Chestnut trees are not extinct: You can still find them growing in the woods, but they exist predominantly as shoots that have sprung up from the roots of blighted trees. These new trees may live 10 to 15 years, but they are also fated to succumb to blight.

## RESTORATION CHESTNUTS

After decades of research, scientists are optimistic that a solution is at hand. The American Chestnut Foundation (TACF) has developed new hybrids by crossing the otherwise sturdy genes of American chestnuts with those of blight-resistant Chinese chestnuts (*Castanea mollissima*), and these hybrids are being re-introduced to forests in the chestnut’s original native range. Re-inventing a tree takes time: Frederick Hebard, chief scientist of TACF, which was founded in 1983 to re-



**Top:** Forests filled with dead American chestnut trees, like this one in North Carolina, were a common sight in the early 20th century. **Above:** The native range of the tree, shown in green on the map, originally spanned a large part of the eastern United States.

The death of these chestnuts was a profound loss, says Tallamy, professor of entomology and wildlife ecology at the University of Delaware and the author of *Bringing Nature Home*. “We lost a wonderful lumber tree, but ecologically, the loss of chestnuts changed the ability of the forest to support the food web,” he says. According to Tallamy, chestnuts supported hundreds of species of insects, which support large populations of birds. The trees provided food for deer, bears, turkeys, grouse, and other animals. When chest-

**American chestnuts produce masses of white summer blooms followed by burry fruits.**



**Left: Chestnut researcher Frederick Hebard of the American Chestnut Foundation with a blight-resistant chestnut that he has hybridized by crossing American chestnut with Chinese chestnut, above.**

store the chestnut to its place in the woods, has been working with the organization since 1989, and a sufficiently blight-resistant American chestnut was not produced and planted in the woods until 20 years later. “It’s a tremendous change, and it’s very exciting,” he says.

These tough, new, almost all-American hybrids were produced by a breeding

technique called backcrossing, starting with pairings of American and Chinese chestnuts and then crossing the progeny back to American chestnuts.

The result, six generations of hybridizing later, is a tree that is 93.75 percent American chestnut. These are the chestnut trees of the future: thousands of them are being planted in national forests and city parks throughout the eastern United States.

“It’s a long process—tree breeding is not for the impatient,” says Meghan Jordan, director of communications for TACF, which has its headquarters in Asheville, North Carolina, regional offices in Pennsylvania and Vermont, and a research farm in the Shenandoah Valley of Virginia. TACF calls the new hybrids, which have the arrow-straight growth characteristic of American chestnuts but the blight resistance of Asian species, “restoration chestnuts.”

“When you look at the way nature and ecology work, organisms change all the time,” says Bryan Burhans, president of TACF. “What we are trying to do is give the tree a leg up, to perpetuate itself without human intervention. We want to give it the ability to restore itself.”

The success of the mighty chestnut’s comeback will eventually be measured in the height of the trees themselves—when they are once again towering 100 feet above the forest floor and making up the bulk of the canopy. “That’s the ultimate test,” says Hebard.

### OTHER BREEDING EFFORTS

In addition to TACF, other groups are also working to save the chestnut. The American Chestnut Cooperators’ Foundation (ACCF) has produced promising blight-resistant chestnut trees, working only with surviving American chestnuts. These all-American intercrosses represent almost 40 years of work, says Lucille

## CHESTNUT BLIGHT: AN INSIDIOUS FOE

Chestnut blight is caused by a fungus (*Cryphonectria parasitica*, formerly *Endothia parasitica*) native to Asia, where its effect on the native Chinese chestnut (*Castanea mollissima*) and Japanese chestnut (*Castanea crenata*) is minimal. American chestnut (*Castanea dentata*), European chestnut (*Castanea sativa*), and a number of other North American forest trees, however, are highly susceptible to the disease, which causes either swollen or sunken yellowish to orange-colored cankers—patches of dead tissue—to form on the bark of the trunk and branches. Over time, the cankers spread, killing the bark and thus destroying a tree’s conduit for water and nutrients. The pathogen—which is transferred by infected wood, insects, birds, wind, or rain—enters trees through wounds or breaks in the bark, a phenomenon that occurs naturally when the trees reach a certain age and the bark begins to fissure or crack. Interestingly, chestnut blight does not attack a tree’s root collar or its roots. Thus while the top of an infected tree dies, its roots remain alive and continue to produce new shoots. These shoots may become fairly tall trees, but eventually they, in turn, will be killed by the blight.

—Mary Yee, Managing Editor and Art Director



**The trunk of this American chestnut bears the telltale signs of chestnut blight.**



Gary Griffin of the American Chestnut Cooperators' Foundation (ACCF) collects a crop of nuts from a 10-year-old American chestnut that is being grown and evaluated for blight resistance. The nuts are distributed to ACCF members to plant and further evaluate.

Griffin, executive director of the ACCF, which is headquartered near Blacksburg, Virginia. Her husband, Gary, president of the ACCF, conducts chestnut research and teaches forest pathology at Virginia Tech. Their organization has been distributing seeds grown in orchards of blight-resistant mother trees since 1985.

"The chestnut is not yet saved, because the inheritance of blight resistance among the progeny of two blight-resistant parents cannot yet be guaranteed," Griffin says. But, in the same way that careful breeding can improve disease resistance in roses, selecting chestnuts for blight resistance increases the chances that new generations will be able to survive the blight.

Naturally, setbacks occur. "It appears that there may be several types of blight resistance," Griffin says, "and improvement in the next generation depends upon combining two chestnuts with the same kind of blight resistance."

Many scientists and researchers have dedicated their entire careers to the legendary forest tree. Sandra Anagnostakis has been working on chestnut breeding and blight resistance at the Connecticut Agricultural Experiment Station in New Haven since the 1960s. Japanese chestnuts (*Castanea crenata*) seem to be more vigorous in Connecticut's climate than Chinese species, she says, but, as a cautious scientist, she has not limited her research to one species.

## Sources

**The American Chestnut Cooperators' Foundation**, [www.accf-online.org](http://www.accf-online.org).

**The American Chestnut Foundation**, [www.acf.org](http://www.acf.org).

**American Chestnut Restoration Project**, [www.fs.fed.us/r8/chestnut](http://www.fs.fed.us/r8/chestnut).

**Burnt Ridge Nursery & Orchards, Inc.**, Onalaska, WA. (360) 985-2873. [www.burntridgenursery.com](http://www.burntridgenursery.com).

**Chestnut Growers of America**, [www.wcga.net](http://www.wcga.net).

**Oikos Tree Crops**, Kalamazoo, MI. (616) 624-6233.

[www.oikostreecrops.com](http://www.oikostreecrops.com).

## Resources

**American Chestnut: The Life, Death, and Rebirth of a Perfect Tree** by Susan Freinkel. University of California Press, Berkeley, California, 2007.

"Most of the trees I'm carrying forward are with original blight resistance from Japanese chestnuts," Anagnostakis says, "but I also have a bunch with Chinese, and what I'm doing now is combining them." Every cross, every generation contributes to the body of research. American chestnut trees will never be totally resistant to blight, she says, "but we hope trees will be able to cope with it."

## A MULTI-PRONGED APPROACH

Chestnut scientists are also working with biological controls. A viral disease of the blight fungus has proven effective at slowing down the blight. Fungal strains containing the virus (which can't exist outside the fungus), are grown in the lab and ground up in a blender to create an inoculant. Anagnostakis uses the inoculant as part of her research, applying it to trees with blight cankers or to the stumps of afflicted trees from whose roots new shoots are sprouting. The treatment is complicated. The idea is to spread the virus through the fungus population and stop it cold, but chestnut blight spreads faster than the virus, and some strains of blight can resist it altogether.

In addition to the blight, there are several other threats to the population of American chestnuts. Anagnostakis is



**Above:** Fred Hebard and a volunteer examine the flowers of an inoculated chestnut at TACF's Meadowview Research Farm in Virginia's Shenandoah Valley. **Right:** TACF volunteers plant chestnut seedlings at the farm, protecting them from wildlife with yellow tubing.



working with colleagues to develop chestnuts that resist ink disease, a root blight persistent in the southern part of the chestnut's range. Trees are also vulnerable to extreme weather, browsing deer, or competition from other trees or weeds. Gall wasps, introduced in the 1970s on imported chestnuts, can also weaken or kill American chestnut trees.

Scientists working on restoring chestnuts hope the trees they are planting will be tough enough to survive the challenges of living in nature. It's like black spot on roses: getting rid of the fungus that causes black spot is not going to be possible, but a healthy rose can resist or tolerate it, and grow and bloom in spite of it. In any rose

garden, some roses show more resistance than others; in the woods or in the rows of a chestnut farm, some trees stand out for their ability to resist the blight.

The new chestnuts have an advantage over their ancestors in that they are growing up in a world in which ecological awareness has sharpened sensitivity to the role of single species within communities. Scientists are collaborating to preserve the genetic diversity of the planet by creating gene banks and seed banks. Gardeners rec-

ognize the cultural, horticultural, and genetic importance of heirloom vegetables. New family farms and urban agriculture movements are also bringing plants back into perspective, and the growth of interest in heirloom livestock farming plays a part in promoting the connections between people and place, culture and geography, environment and identity.

### THE POWER OF THE PAST

Although chestnuts—being forest trees—never figured as prominently in the lives and experience of modern gardeners as the American elm trees that once formed stately canopies over our city streets before Dutch elm disease wiped them out, they still have a place in our collective consciousness. Chestnuts were harvested for city markets, where they were roasted and sold on the streets in the fall. They were an important part of the diet of farm families, especially in lean times. Rot-resistant chestnut lumber was used for beams, fences, telephone poles, and railroad ties.

In literature, Henry Wadsworth Longfellow's poem "The Village Black-



Large American chestnuts were still being harvested for timber in the Great Smoky Mountains of Tennessee in the 1920s. This way of life would disappear soon after.

smith” makes reference to a “spreading chestnut tree”—although some experts suggest that tree was actually a horse chestnut (*Aesculus* sp.), not an American chestnut. Regardless, the famous lines from this poem evoke the comforting shade of long ago and a time when a great

tree embraced a frontier community that had grown up around it.

In 1946, when Mel Torme and Robert Wells wrote *The Christmas Song* (better known by its opening line, “Chestnuts roasting on an open fire”), American chestnuts were almost gone, but the song has given chestnuts almost mythical sentimental value, even for people who have never seen, let alone roasted, a chestnut.

“That’s what drives it,”

says arborist and native tree expert Guy Sternberg of the dedicated efforts to bring back the American chestnut. “If what we lost were mosquitoes or chiggers, well, there would be less interest.”

Sternberg, founder of Starhill Forest Arboretum in Illinois and author of *Native Trees for North American Landscapes*, feels that the future of American chestnuts may lie outside their original native range, in areas where the blight has not yet penetrated. The largest stand of

American chestnuts outside the native range grows on 60 acres in LaCrosse, Wisconsin. These trees are the progeny of seeds said to have been planted by a settler late in the 1800s. Blight was found here in the 1980s, however, and the trees have since been treated with the blight-attacking virus.

## HOW GARDENERS CAN HELP

You don’t have to be a scientist to grow an American chestnut tree. The American Chestnut Foundation sells pure American chestnut seedlings, along with lots of advice on how to grow them. In time, these trees can be expected to die of blight, Jordan says, but planting them preserves the genetic stock of American chestnuts, gives growers an opportunity to learn about chestnuts, and—if you plant more than one tree—to harvest a crop of nuts. Hardy in USDA Zones 5–8 and heat tolerant in AHS Zones 8–5, the trees grow quickly, and bear nuts within three to five years.

TACF also makes backcross restoration chestnut seeds available to contributing supporters. Growing these chestnuts “gives people a chance to be a part of a national science experiment,” Jordan says. It will take time to build confidence in the new trees, but, at the moment, Jordan adds, “we have a very good product to start testing.” These trees represent “the end of the beginning” of the return of the chestnut tree.

TACF has established a system of state chapters and cooperates with the U.S. Forest Service, the National Park Service, universities, arboreta, and other organizations. “The power of volunteers will be critical” to the future of American chestnuts, Burhans says.

American chestnuts are not expected to become a cash crop for orchard growers, and no one is harvesting American chestnut hybrids for timber, Anagnostakis says. The true harvest of these efforts to restore chestnuts, Burhans says, is in the awareness of the ecological importance of the species. “More trees is better,” Jordan adds. “From the environmental perspective, that’s the bottom line.”

*Marty Ross is a freelance garden journalist and blogger who gardens in Missouri and in Virginia.*

## COUNTING ON NUTS

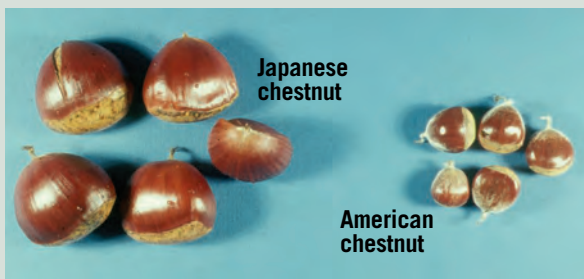
Most people have never tasted a nut from an American chestnut tree. The nut crop can be prodigious, but the nuts are small—about 100 nuts to the pound. Chestnuts sold in American markets are considerably larger and are likely to be from hybrids of European and Japanese chestnut trees. These nuts need to cure for a couple of weeks after harvest before they are ready to eat. Fall is their season.

“To many people there is nothing better than an American chestnut,” says Dennis Fulbright, a professor of plant pathology at Michigan State University who has worked to save the American chestnut trees in Wisconsin. “You can eat an American chestnut right off the tree, and it is almost like a Lifesaver, it is so sweet.”

Even as scientists have struggled to reintroduce blight-resistant American chestnut trees, demand for chestnuts has grown. Fulbright is one of the champions of Asian chestnuts as an American orchard crop. American-grown Asian chestnut hybrids are coming along, he says, and chestnuts are grown commercially in Michigan, Pennsylvania, Oregon, Florida, California, and Missouri, among other states.

Chestnuts are fast-growing trees and produce nuts after three to five years; it takes seven years to harvest a pecan crop, and five years for walnuts. A 10-year-old chestnut tree, says Fulbright, may produce 80 pounds of nuts.

—M.R.



# Blazing Stars



“**A**H, LIATRIS, what a lovely genus!” says Neil Diboll, founder and president of Prairie Nursery in Westfield, Wisconsin. Diboll should know. He’s been creating and restoring prairies since the 1970s, and *Liatris* species and cultivars are among the most striking and beautiful of American prairie natives.

But you don’t have to live in a prairie state or have a prairie-style garden to appreciate the merits of this genus. For gardeners, the benefits include flowers during that much-needed period from late summer to fall, attractiveness to pollinators such as butterflies and bees, resistance to drought and deer, and usefulness as cut flowers (see “Great Cut Flowers,” page 36).

These adaptable American perennial wildflowers offer late-summer color, attract a variety of pollinators, tolerate drought, resist deer, and look great in a vase.

BY BARBARA PERRY LAWTON

**Candlelike spikes of massed *Liatris spicata* ‘Alba’ serve as a beacon for nectar- and pollen-seeking insects in this garden.**

## PRAIRIE ROOTS

Native primarily to the eastern two-thirds of North America, the genus *Liatris* and its three dozen or so species are known collectively—and individually—by several evocative common names. Among these are blazing stars, gayfeather, purple poker, and button snakeroot. For the purposes of this article, I am going to use the name blazing stars when referring to the genus as a whole.

All blazing stars are herbaceous perennials that grow from corms—thickened underground storage organs that help the genus survive droughts in its prairie and Great Plains habitats. Erect stems bear closely spaced linear leaves that are largest near the base, decreasing in size as they go up the stem.





Prairie blazing star will thrive in a moist garden site and is well suited to a meadow planting.

Blazing stars flower from July through October, depending upon the species, growing region, and weather conditions. The individual flowers—which come in shades of purple, rosy pink, and white—are tubular with five lobes and two thread-like styles that protrude from the petals. Each inflorescence is composed of 12 to 40 individual flowers crowded together on long terminal spikes.

Blazing star inflorescences come in two distinct forms. The most common garden types have columnar spikes that are solidly filled with flowers; other species have flowers arranged in buttonlike clusters that are more widely spaced along the stem. In both forms, the individual flowers have the unusual habit of opening

starting at the top of the spike and progressing downward, which is the opposite of what occurs in most linear flowers.

#### WILDLIFE ATTRACTORS

In addition to their ornamental value, blazing stars serve as a valuable food source for a wide variety of birds and insects, including bees, butterflies, and moths. “*Liatris*, with their spikes of magenta-tinged pink flowers, are a striking component of any wild habitat and a welcome addition in the garden,” says James Trager, a biologist at the Missouri Botanical Garden’s Shaw Nature Reserve near St. Louis. Well known for attracting monarchs and other butterflies, blazing stars also are food for the larvae of a

group of creatures known as flower moths. Several species of flower moth (*Schinia* spp.) feed exclusively on *Liatris* species. “The flowers of all species are attractive to butterflies, their primary pollinators, and—to a lesser extent—to bumblebees,” says Trager.

The genus also has an interesting history of medicinal use by Native American tribes (for more on this, see the web special, “*Liatris* as Medicinals,” linked to this article on the AHS website, [www.ahs.org](http://www.ahs.org)).

#### OUTSTANDING SPECIES

The dense blazing star or prairie gayfeather (*Liatris spicata*, USDA Hardiness Zones 4–9, AHS Heat Zones 9–1) is native to moist prairies throughout much of eastern North America. Arguably the most popular species, it is the one most commonly available at plant nurseries. Plants thrive in ordinary garden soil, typically growing two to four feet tall. They provide a strong vertical accent in the summer border when their long-lasting, 18- to 28-inch spikes of pink-purple flowers open.

Mary Walters, president and co-founder of Great Garden Plants, an online plant company ([www.GreatGardenPlants.com](http://www.GreatGardenPlants.com)), grew up and worked in a family-owned perennial nursery where she often watched butterflies gathering on field-grown blazing stars. “I’m especially fond of *Liatris spicata* ‘Kobold Original’, which at 15 inches tall provides a good uniform look in the landscape,” she says.

Other outstanding selections of dense blazing star include the elegant ‘Floristan White’ and ‘Floristan Violet’, both strong bloomers that grow three to four feet tall.

Among Neil Diboll’s favorites for a combination of beauty, adaptability, and value to birds and butterflies is prairie blazing star (*Liatris pycnostachya*, Zones 3–9, 9–2). “This clay-loving denizen of medium to moist prairie puts on a midsummer display that upstages other prairie flowers,” says Diboll. An inhabitant of prairies from Wisconsin to Texas, it has 18-inch long, bright purple flowerheads that combine well with wild quinine (*Parthenium integrifolium*), nodding pink onion (*Allium cernuum*), queen of the prairie (*Filipendula rubra*), and showy grasses such as prairie dropseed (*Sporobolus heterolepis*). It can grow to five feet tall, and may need staking. Selections include ‘Eureka’, which is

noted for its dense reddish-purple flower stalks, and white-flowered 'Alba'.

Another of Diboll's favorites is rough blazing star or button snakeroot (*Liatris aspera*, Zones 3–9, 9–1). It is native in nearly every state from the eastern foothills of the Rocky Mountains to the Atlantic Ocean. It has a buttonlike inflorescence, producing small rounded clusters of blooms along the stem in late summer. "Rough blazing star thrives in super dry sandy soil," Diboll says. In addition to attracting a variety of

butterflies, it produces seeds that draw goldfinches in the fall.

Snakeroot or dotted gayfeather (*Liatris punctata*, Zones 3–9, 9–1) has among the broadest native range of any *Liatris* species, stretching from the central Canadian provinces south through a wide swathe of the central United States to Texas. It is considerably shorter than the better known *L. spicata*, only reaching about 18 inches tall, and has a deep-reaching taproot that helps it survive droughts.

Its purple flowers, interspersed with needlelike leaves, are borne on dense, columnar spikes growing to 12 inches long. "This plant is tough, drought tolerant, deer resistant, does well in a range of soils, including my backyard dry clay, and, like all *Liatris*, is a butterfly and bee magnet," says Ellen Zachos, owner of Acme Plant Stuff in New York City and author of several garden books.

Diboll also has a soft spot for meadow blazing star (*Liatris ligulistylis*, Zones 3–8,



Dotted gayfeather, left, is native to a broad swath of central North America. Meadow blazing star, above, attracts many kinds of butterflies, including monarchs.

8–3), a perennial that grows wild from southern Manitoba to northern New Mexico. It grows best in rich, medium to slightly moist soil and produces rose-purple flowers displayed on short pedicels in late summer; plants grow one to three feet tall. Monarch butterflies swarm around the flowers and finches feed on the September seeds. Diboll notes that "although relatively short-lived—three to five years—it puts on a great display and is a wonderful plant for wildlife."

#### LESSER-KNOWN SPECIES

Like *Liatris aspera*, northern blazing star (*Liatris scariosa*, Zones 3–8, 8–3) produces buttonlike inflorescences. It grows



Although relatively short in the wild—where it is now rare—New England blazing star can grow up to two feet tall in favorable garden settings.

two to four feet tall, bearing clusters of purple-pink flowers in late summer. “These showy and beautiful flowers lend still another tint to the many hued salt marshes and glowing inland meadows of the ailing year,” wrote Mrs. William Starr Dana in *How to Know the Wild Flowers* (Charles Scribner’s & Sons, 1893). A selection named ‘September Glory’ has deep purple flowers.

New England blazing star (*L. scariosa* var. *novae-angliae*, Zones 3–7, 7–3) is a botanical variety of this species native to the sand barrens and coastal plains of the northeastern United States. In the wild, where it is now considered rare, it grows

only about 12 inches tall. But under favorable conditions in the garden it can grow to two feet, bearing branched stalks of fluffy, reddish purple flowers from late summer to fall. It thrives in dry, sandy soils.

The small-headed blazing star (*Liatris microcephala*, Zones 5–8, 8–5) is a multi-stemmed native of the southeastern United States. It has a far more delicate habit than most previously mentioned selections, growing only one-and-a-half to two feet tall, and producing wispy tassels of rose-purple to lavender blooms in late summer and early fall. It tolerates drought, performing best in sandy, dry soils or in a well-drained rock garden.

## Sources

- Great Garden Plants**,  
[www.GreatGardenPlants.com](http://www.GreatGardenPlants.com).  
**Missouri Wildflowers Nursery**, Jefferson City, MO. (573) 496-3492.  
[www.mowildflowers.net](http://www.mowildflowers.net).  
**Niche Gardens**, Chapel Hill, NC. (919) 967-0078.  
[www.nichegdn.com](http://www.nichegdn.com).  
**Prairie Moon Nursery**, Winona, MN. (507) 452-1362.  
[www.prairiemoonnursery.com](http://www.prairiemoonnursery.com).  
**Prairie Nursery**, Westfield, WI. (800) 476-9453.  
[www.prairienursery.com](http://www.prairienursery.com).  
**We-Du Nurseries**, Marion, NC. (828) 738-8300. [www.we-du.com](http://www.we-du.com).

## Resources

- Field Guide to Indiana Wildflowers** by Kay Yatskievych. Indiana University Press, Bloomington, Indiana, 2000.  
**Gardening with Prairie Plants** by Sally Wasowski. University of Minnesota Press, Minneapolis, MN, 2002.  
**Herbaceous Perennial Plants** (third edition) by Allan M. Armitage. Stipes Publishing, Champaign, Illinois, 2009.  
**Tallgrass Prairie Wildflowers** by Doug Ladd. Falcon Publishing, Helena, Montana, 1995.  
**Wild Ones – Natural Landscapers**, P.O. Box 1274, Appleton, WI 54912. (920) 730-3986.  
[www.for-wild.org](http://www.for-wild.org).

The cusp, narrow-leaf, or Texas blazing star (*Liatris mucronata*, Zones 6–9, 10–6) occurs in limestone glades and dry prairies of the mid-southern United States. It forms wide, spreading clumps two to three feet tall that produce purple blooms from mid- to late summer. With its tolerance for dry soils it is another good choice for rock gardens.

Another plant of dry, rocky prairies, scaly blazing star (*Liatris squarrosa*, Zones 5–9, 9–5) can be found growing throughout the southern half of the tallgrass prairie region. It produces fuzzy, button-like clusters of red-violet blooms, openly spaced along the stem. It is one of the ear-

## GREAT CUT FLOWERS

In a vase, either alone or with a selection of other fresh flowers, flower spikes of *Liatis spicata*, the species most commonly grown as a cut flower, make a dramatic statement. Blazing star flower stalks also are excellent subjects for drying. Air dry them by hanging them upside down in a ventilated area at room temperature for a couple of weeks. They are then ready to include in long-lasting arrangements.

Fresh blazing star flower spikes should last up to two weeks if properly



'Floristan Violet' is a popular cut flower.

cared for. Check water level daily. Recut the stems every three to four days.

The flower spikes of blazing star grow on stems that can be as long as 30 inches or more. They are unusual in that the flower spikes open from the top down, unlike most linear flowers, where the bottom florets open first. Since the florets form all around the stems, they will make arrangements that are equally attractive from any side. Popular blazing star varieties for cut flowers include 'Floristan Violet', 'Floristan White', 'Gloriosa' (purple), 'September Glory' (purple), and 'White Spires'. Harvest blazing star stems in the morning when three to four florets have opened. —B.P.L.

liest *Liatis* species to bloom, and its flower display continues throughout summer. Its multiple, unbranched stems grow one to three feet tall.

Grass-leaved blazing star (*Liatis pilosa*, syn. *L. graminifolia*, Zones 5–9, 9–5) is a native of the coastal plains from New Jersey to Alabama. This summer bloomer only grows about 12 inches tall, producing thin spikes of purple-pink flowers.

ceous perennials, such as black-eyed Susans (*Rudbeckia* spp.) and coneflowers (*Echinacea* spp.). Blazing stars also pair well with native grasses such as little bluestem (*Schizachyrium scoparium*) and prairie dropseed (*Sporobolus heterolepis*), a compact, one-foot-tall, clumping grass that bears ornamental seed heads.

Because of their erect, vertical habit, most blazing stars take up very little space and thus are suitable for even small gar-



In a sunny garden site, blazing stars mingle well with other tough, drought-tolerant native perennials, including purple coneflowers (*Echinacea purpurea*) and beebalm (*Monarda didyma*).

### LIATRIS IN THE LANDSCAPE

In his classic *Jewels of the Plains* (1983), Claude Barr wrote that blazing stars “lavishly contribute strong purple or rose-purple to late summer landscapes and the garden. The color, clear and beautiful, is accentuated by transmitted and reflected light.” All of the taller *Liatis* species, particularly those with dense, columnar flower spikes, serve as strong vertical accents in ornamental beds and borders. They are as beautiful and useful in native gardens as they are in more formal plantings. Combine them with other American herba-

dens. Smaller species and selections can be grown in large containers, where they provide a handsome vertical accent for short and medium-tall annuals, perennials, and foliage favorites.

### GROWING BLAZING STARS

The major requirement for successfully growing any blazing star is a site in full sun. Most thrive in poor to average soils. If overfertilized, they are inclined to grow too tall and flop over. During the first year of growth, water blazing stars regularly so they can develop strong, deep-spreading



In this informal Pacific Northwest landscape designed by Cassie Picha, spiky blazing stars offer a pleasant counterpoint to the pale, immature, rounded flowerheads of sedums and the daisylike yellow flowers of black-eyed Susans (*Rudbeckia* sp.).

roots. Once established, they should only need supplemental water during unusually extended droughts.

Buying established plants—these can be planted in early summer or fall—is the fastest way to get blazing stars up and running in your garden. At garden centers, your choice may be limited to spike blazing star, but a broader selection of species and cultivars is available at native plant sales or through specialty nurseries (see “Sources,” page 35).

You can also purchase blazing stars as dormant corms. Plant these about four inches deep—with no more than two inches of soil and mulch over the top of the corm—in well-drained soil in early spring to summer. Choose corms that are three to five inches in circumference, and be sure to plant the corms right side up—the stringy side is the bottom.

To grow blazing stars from seed, collect seeds in late summer to fall and sow

them in flats. Seeds require cold conditioning, or stratification—you can simply leave the flats outdoors over the winter, covered with wire mesh to prevent squirrel damage—and they will germinate once soil temperatures begin to rise in spring. It usually takes two years or more for plants to bloom from seed.

Established plants can be successfully divided during the spring. If you want plants to colonize, allow the seedheads to remain on the plant into winter so they can self-sow.

When planted in an ideal site, blazing stars will rarely have any disease problems. They are occasionally infected by the fungal disease verticillium wilt, which can be avoided by spacing the plants so that they have good air circulation and not overwatering. Powdery mildew, another fungal disease, may appear on blazing star leaves as a powdery white substance. Avoid wetting the foliage

when watering in order to reduce the potential for this disease.

If voles or other root-chewing rodents are a problem in your garden, James Trager suggests adding sharp-edged gravel to the soil when planting blazing stars to discourage the animals from burrowing around the plants.

## YEARS OF ENJOYMENT

Grow these tough prairie perennials under the right conditions and you will be rewarded with many years of spectacular summer flowers that will brighten your garden and fill your vases. Even more rewarding will be the sight of the butterflies, bees, and birds that will flock to your garden to enjoy the summer and fall bounty that blazing stars offer. ☞

*Barbara Perry Lawton is an award-winning author of more than 10 gardening books. She lives in Valley Park, Missouri.*

# *digging into the Art and Science of Gardening*

This year's Symposium takes place in Michigan, where the youth gardening movement first gained momentum nearly two decades ago.

BY CHARLOTTE ALBERS

**N**OT ONLY is there an art and a science to gardening, there's an art and a science to making the plant world come alive for kids. When you get it just right, gardening can be a powerful tool for enhancing educational opportunities, building environmental awareness, and encouraging community involvement. Those looking to hone their skills in this arena won't want to miss this year's 19th annual National Children & Youth Garden Symposium, taking place July 21 to 23 in East Lansing and Grand Rapids, Michigan. Featuring a broad array of workshops, tours, and presentations, the event is designed for teachers, parents, designers—anyone who works with kids in the garden.

“There is no group of educationally oriented people that I look forward to being with more,” says **Dar Hosta** of Flemington, New Jersey, an artist and author who has been a regular Symposium participant for several years and will also be presenting at this year's event. “The camaraderie, the enthusiasm for learning, and love of the earth is something that I wish all teachers could experience.”

Everything about the Symposium is designed to offer inspiration and encouragement to those working to connect young people with the natural world. For **Emily Chase**, who attended the 2010 Symposium in California, the event helped her realize that “our collective hard work does pay off.” As she shared experiences with like-minded cohorts and heard success stories from the youth themselves, Chase saw numerous examples of how garden-based



In Michigan State University's 4-H Children's Garden, Curator Norm Lownds encourages young students to get up close and personal with plants.

programs help children and youth “learn positive character traits and healthy nutrition and lifestyle choices, gain a better understanding of their academic lessons, and overall become good stewards of the land and our world.”

## WHERE ART MEETS SCIENCE

This year's host gardens are the embodiment of the Symposium's theme, “Dig-

ging into the Art and Science of Gardening.” On the art side, there is the Frederik Meijer Gardens & Sculpture Park in Grand Rapids, where horticulture is as much of an art form as the impressive sculpture collection situated throughout its 132-acre grounds. As for science, the innovative 4-H Children's Garden at Michigan State University in East Lansing has just about turned teaching its young visi-

## GREAT GARDENS OF THE GREAT LAKE STATE

One of the Symposium highlights will be the chance to visit some of Michigan's best gardens at the peak of their summer bloom. Here's a little taste of what there is to see.

### 4-H CHILDREN'S GARDEN

Opened in 1993, the 4-H Children's Garden at Michigan State University features more than 100 individual theme areas creatively designed in a half-acre space. Starting with its colorful Sunburst Entrance and welcoming Amphitheater, the garden makes plants exciting for kids—not always an easy feat in this plugged-in day and age! Yet this garden is so good at what it does, it has become a model for many other children's gardens and programs.

"The idea for a special garden for kids," recalls Jane Taylor, the 4-H Children's Garden founding curator, sprung from her many visits to public gardens in the U.S. and Europe, where there was "little that appealed to visiting families and to kids—no displays that taught them the importance of plants in their daily lives," she says. "This led to efforts to try and change how public gardens could better serve all their visitors, increase garden visitation, and make it a truly educational experience."

Norm Lownds, the garden's current curator, developed a virtual version of the garden as part of an interactive website full of games, stories, and science. Through his leadership, the garden has expanded to include a 1,500-square-foot indoor garden, a Curiosity Classroom, and the Pete & Sally Smith Schoolyard Demonstration Garden. Take a virtual tour at [www.4hgarden.msu.edu/kidstour/tour.html](http://www.4hgarden.msu.edu/kidstour/tour.html).



### FREDERIK MEIJER GARDENS & SCULPTURE PARK

The Frederik Meijer Gardens & Sculpture Park in Grand Rapids features natural wetlands, a tropical conservatory, and exhibits by contemporary artists. James van Sweden, a Grand Rapids native, designed the New American Garden, which mixes grasses and perennials in trademark sweeps of color. Herbaceous plants in the English Perennial Garden, designed by Penelope Hobhouse, greet visitors as they enter the main building.

Of particular interest is the Lena Meijer Children's Garden, which opened in 2004. Themed areas contain sculptures, play structures, interpretive displays, and a diverse collection of plants. One of the highlights is a replica of Michigan's Great Lakes, downsized to child-height, where garden volunteers engage visitors in play and educational activities. Trails connect to a wetland, where there's an oversized beaver lodge to explore, and loop through outdoor areas where carts containing materials for more activities are located. For more information, visit [www.meijergardens.org](http://www.meijergardens.org).



### DOW GARDENS

An optional post-Symposium tour to the Dow Gardens Children's Garden in Midland will allow participants to see its Growin' Gardeners program in action. This award-winning program gives families an opportunity to garden in a community setting. Begun in 2003 with 10 garden plots and 34 participants, the program has grown to include 84 plots and 270 participants.

The Dow Gardens were started in 1899 by Herbert Dow, founder of the Dow Chemical Company. The grounds now comprise 110 acres and include over 450 varieties of roses, large displays of rhododendron and azaleas, and a rare old-growth stand of white pine (*Pinus strobus*), Michigan's state tree. The Children's Garden is designed around edible plants with organic vegetable displays and an active summer garden plot program. Learn more at [www.dowgardens.org/kids.html](http://www.dowgardens.org/kids.html).  
—C.A.



The 4-H Children's Garden offers a variety of programs that teach kids about plants, such as this Seeds of Science class. The goal is always to inspire curiosity and wonder.

tors about the wonders of plants and gardens into a science. (See "Great Gardens of the Great Lake State" on page 39 for more details.)

### INSPIRATION AND EDUCATION

In addition to behind-the-scenes tours

and in-depth explorations of the host gardens, the Symposium will feature two inspirational keynote speakers. **John Fraser** will give the opening address. He is a director of the Institute for Learning Innovation, a Maryland-based non-profit dedicated to understanding, facilitat-

ing, and communicating about free-choice learning. Armed with the latest research on American attitudes about children and nature experiences, he will build a case for the infinite value of outdoor learning.



John Fraser

conviction that "everything can be taught in a garden." In recognition of Taylor's enduring influence, the American Horticultural Society presents an annual award named after her to leaders in



Jane Taylor

the field of children's and youth gardening. During her presentation, Taylor will offer her perspective on how the youth gardening movement has expanded and evolved over the last 20 years and what the future holds. Symposium participants will also have more than 50 lectures and workshops to choose from—on wide-ranging topics including grant writing, biodynamic composting, and designing outdoor play environments. "The many different sessions reflect the fact that our Symposium attendees have varying needs and experience levels," says **Stephanie Jutila**, AHS director of member services and outreach. "From the session topics to the tour locations, we offer something for everyone."

For a complete 2011 Symposium events schedule, visit [www.ahs.org/ncygs](http://www.ahs.org/ncygs).

*Charlotte Albers is a freelance writer and designer based in Burlington, Vermont.*



At the Lena Meijer Children's Garden at Frederik Meijer Gardens & Sculpture Park, children and parents enjoy a scaled-down replica of Michigan's Great Lakes.



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Gardens provide endless opportunities for unleashing kids' creativity while helping them learn about their world. Discover innovative ways to mine this potential at the 2011 Symposium, where we will dig into both the art and science of gardening (spade not required).

This year's Symposium host gardens also reflect this theme, bringing together the educational resources of Michigan State University and the artistry of the Frederik Meijer Gardens & Sculpture Park. They will provide the perfect location for you to pick up new tools, resources, activities, skills, and inspiration to take back to the youth in your communities and schools.

Learn how to create and use gardens to provide dynamic environments for experimentation, social engagement, self-expression, and connection to the natural world. Hear from students, teachers, and national experts about the vital role gardens can play in the lives of today's children and youth.



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## Cowbirds and Wrens: A Gardener's View of Nest Parasitism

by Randy Stockbridge



Carolina wren



House wren

**N**O MATTER where you live, you've probably observed wrens nesting in your garden. Several species are comfortable living side by side with humans: the Carolina wren in the mid-Atlantic and southeast, the house wren between middle and northern latitudes from coast-to-coast, and the cactus wren in the southwest. Their nests turn up not only in the shrubbery, but in delightfully quirky places such as an old flower pot or a hanging plant.

A few years ago, some wrens built a nest in the gap created by a partially open storm window outside my bedroom window. Every day, I pulled back the curtain and peeked through the glass, first at the little clutch of four eggs, and then at the tiny hatchlings. I enjoyed playing host to these little brown birds, which have charisma and a beautiful song. And I certainly approved of the birds' tireless hunting excursions in my garden. A wren feeding a nest of hungry chicks can capture up to four times its body weight in insects each day.

But from the beginning, one of the chicks in the nest stood out from the others. It was bigger and louder and opened

its gaping mouth wider. It was soon larger than the nest itself, demanding still more food as its nest mates, barely visible beneath its girth, peeped futilely.

I soon learned this chick was not a wren at all, but a cowbird, hatched from an egg abandoned by its mother for the

wrens to raise. As the wrens neglected their own offspring to feed the insatiable chick, I wondered why the wrens seemed so oblivious that the big baby was an imposter. And, what kind of lousy mother abandons her baby in another bird's nest? Other questions came to mind: Was there anything I could do to help the wrens? Should I scare the cowbird chick away? Should I have removed the cowbird egg if I had noticed it earlier?

### CUNNING COWBIRDS

There's much more to the story than I could observe from my window. It turns out that cowbirds are less neglectful—and the wrens more prudent—than it might seem, according to field research (see "Resources," opposite page) spearheaded by avian ecologist Jeffrey Hoover of the Illinois Survey of Natural History within the Institute for Natural Research Sustainability at the University of Illinois. Cowbirds don't specifically pick on wrens; research indicates they target more than 200 bird species for child-rearing duties. Hoover documented cow-



In addition to wrens, cowbirds lay their eggs in the nests of many birds, including warblers.



Adult brown-headed cowbirds congregating at a bird feeder.

birds engaging in what ecologists evocatively call “mafia retaliation” to coerce other birds to raise cowbird chicks. The female cowbird furtively follows a nesting pair of birds and lays her eggs in the nest shortly after the host lays her own. But the cowbird does not simply abandon her egg. She lurks in the bushes, watching the nest as the eggs hatch and the chicks grow. If the host ejects the imposter, the mother cowbird takes revenge by destroying the nest and any eggs or hatchlings, forcing the parents to start anew. Even then, the cowbird stalks the bereaved parents to a new nesting site and adds another egg to the new nest.

So how does the threat of mafia retaliation by a cowbird induce a wren to cooperate? “That’s a good question, and we don’t know the answer,” says Hoover, but he offered a few possibilities. Perhaps wrens learn not to cross the cowbirds by past experience or by observing other wrens. Or perhaps it’s in the genes: Chicks whose parents can’t count eggs, don’t notice mismatched eggs, or simply aren’t strong enough to push a mysterious egg over the edge of the nest, are more likely to survive than those who jettison imposter eggs and incur the cowbird’s wrath.

### TAKING THE LONG VIEW

According to Hoover, until 200 to 300 years ago, cowbirds followed the bison herds across the Great Plains. As the bison disappeared and settlers cleared forests for cow

pastures, the cowbirds extended their range over the entire North American continent. So, from an evolutionary perspective, cowbirds and woodland songbirds are now engaged in the earliest skirmishes of an evolutionary battle in our gardens.

Presumably, wrens and other hosts will develop the size and skill to fight back against the cowbirds over generations, and the cowbirds will retaliate in an attempt to extinguish the bloodlines of birds that can outwit them. Hoover thinks that the example of the American robin, which has shared a range with the cowbirds for thousands of years, may prove informative. “Whether robins eject every cowbird egg, or whether the cowbirds have just moved on, it’s very uncommon to find a cowbird in a robin’s nest,” he says.

### Resources

**Cornell Lab of Ornithology,**  
[www.allaboutbirds.org](http://www.allaboutbirds.org).

**Proceedings of the National Academy of Sciences of the U.S.A.** by J.P. Hoover and S.K. Robinson. Vol. 104, No. 11: 4479-4483. Washington, D.C., 2007. (Link to article at <http://tinyurl.com/3nq529u>.)

**To view a YouTube video of a cowbird fledgling being fed by a chickadee,** click on a link with this article on the AHS website ([www.ahs.org](http://www.ahs.org)).

### PREVENTING PARASITISM OF SONGBIRD NESTS

While removal of cowbird eggs is not recommended, here are some tips homeowners can use to reduce the incidence of cowbird parasitism.

- Cowbirds prefer open lawns or pastures. To discourage them from taking up residence in your yard, plant lots of trees, shrubs, and groundcovers, especially those providing berries, seeds, and shelter for songbirds year round.

- Feed birds only in the winter, and avoid seed mixes that include millet or corn, which attract cowbirds (sunflower seeds are ideal).

- Most songbirds feed their chicks insects. Providing insect habitat—including shrubs, perennial plants, and leaf litter mulch—and avoiding use of insecticides will make it easier for songbirds to provide for their offspring.

- Provide nest boxes with an entry smaller than one-and-a-half inches across, through which a cowbird can’t fit. Songbirds like to choose among several nest sites, so the more boxes, the better for the birds.

—R.S.

### IN ACTION THE BEST ACTION

In retrospect, I decided that *not* removing the cowbird egg from the nest outside my window was probably the best course of action. Even if the wrens didn’t abandon the nest, the female cowbird might have destroyed the other eggs. And most host chicks survive until the cowbird fledges.

In cases where cowbirds do threaten rare species, such as the Kirtland’s warbler in Michigan and Wisconsin, or the southwestern willow flycatcher, conservation groups are taking action to decrease the cowbird population. But the most common yard birds—finches, wrens, and cardinals, for instance—are what Hoover calls “urban winners,” and their populations are robust enough that cowbird nest parasitism won’t prevent these birds from returning each spring to sing, build nests, and raise their chicks.

*Randy Stockbridge is a biologist and freelance science writer based in Canton, Massachusetts.*

## Beating the Heat

by Scott Aker

**W**HEN SELECTING new plants, gardeners often seem to fixate on hardiness as a guide for what will grow, but plants are also very finely tuned when it comes to heat. A few degrees difference in temperature at the right time may mean the difference between life and death. Understanding how high temperatures affect plants is the key to learning how to help your plants cope with heat. Many plants are stressed when the average daily temperature is much above 86 degrees Fahrenheit. This is the basis for the AHS Heat Zone Map (see page 60), a tool that helps gardeners determine whether plants will survive if subjected to summer's heat in their region.

Surprisingly, heat during the overnight hours appears to produce the most significant effect on plant performance. Plants that are considered intolerant of heat can generally cope with high temperatures during the day as long as nights are cool. But when nights are too hot, pansies stretch and lose vigor and lettuce becomes bitter and starts to bolt. The best tactics for coping with heat are to rely on plants that thrive in the temperatures typically experienced in your region, make the most of microclimates in your yard, and time plantings carefully to coincide with seasonally optimal temperatures for individual plants.

As part of an overall process of garden record-keeping, I highly recommend purchasing a thermometer that automatically records daily highs and lows in your garden. If you compare the readings that you get to those of your nearest official weather station, you might be surprised how different they are. Differences in elevation, proximity to bodies of water, and levels of shade can cause significant differences in temperature within a small area.

### HEAT-TOLERANT PLANTS

If heat seems to wither your garden, choose plants that thrive in hot conditions. Annuals such as meconidias, angelonias, cupheas, and cockscombs (*Celosia* sp.) do very well in hot temperatures, even when night temperatures remain warm. Crape myrtles, caladiums, morning glories, and cannas also thrive in hot weather. Vegetables and fruits such as squash, melons, figs, Malabar spinach, okra, and sweet potatoes are reliably productive where summers are hot.

If heat has stymied your attempts to grow coveted plants that that only thrive in cooler regions—such as deep blue delphiniums,

for instance—substitution may be your best bet. In this case, you might want to grow wild indigo (*Baptisia australis*) or anise hyssop (*Agastache foeniculum*), plants that bear blue flowers and have a look similar to delphinium.

Within a given species, there may be great differences in heat tolerance. Seek out selections that are specifically bred for success in hot regions. For instance, Snow Princess™ alyssum thrives in heat, while other varieties succumb. Wave™ petunias were bred to succeed in the heat, but many other petunia cultivars stop blooming when night temperatures are consistently above 70 degrees.

Every garden has its cool spots. Areas that are lightly shaded from midday through late afternoon and areas that tend to stay moist in dry weather may provide a microclimate to grow plants that are sensitive to heat. If you have a pond or creek, it may serve to keep nearby plants cooler in hot weather.

### PAY ATTENTION TO TIMING

Timing is often critical to dealing with garden problems, and coping with heat is no exception. If your summers are hot, an early start in late winter is mandatory if you want to grow pansies, sweet peas, and snapdragons. Sow larkspur seeds in early October so the seedlings will establish before winter arrives and bloom lavishly in May. In fact, fall planting is the rule of thumb in the warmest regions of the United States for

these and other plants that need cool weather to thrive.

Timing is important for heat-loving plants, too. Melons, tomatoes, and eggplant set out too soon might just sit there or even rot before warm nights stimulate their growth. In the north, it may be best to wait until early June to plant them. Further south, too much heat is the limiting factor for the same crops. Research reveals that hot weather (temperatures over 90 degrees) shuts down fruit set on vegetables such as tomatoes and peppers. If you live in a torrid region, plant these crops near the end of July so their maturity coincides with cooler night temperatures in September, yielding a bumper crop in October and November.

Timing can even influence flavor development in fruits and vegetables. Midsummer tomatoes may be insipid compared to those that mature in the autumn, and lettuce and spinach are at their best harvested before they encounter any hot weather.



**To grow plants that don't tolerate summer heat, such as lettuce and spinach, timing their planting for cooler spring or fall is essential.**

Because weather is variable from year to year, hedge your bets by staggering plantings of vegetables.

## STAYING SMART IN THE HEAT

Speaking of heat, remember to take care of yourself as you venture into the garden during the dog days of summer. Apply sunscreen and wear a hat, stay hydrated, and save the strenuous tasks for the coolest hours of the day. This will not only keep you safe, but ensure that gardening continues to be fun and not a chore. ☞

*Scott Aker is a Washington, D.C.-based horticulturist. For 10 years he wrote the "Digging In" column for The Washington Post.*

## Gardening Q&A with Scott Aker

### DEALING WITH AN OVERLY LARGE CRAPE MYRTLE

*A crape myrtle (Lagerstroemia sp.) I planted in front of my picture window is now so large it blocks the view. Can I cut it to the ground and shear it to keep it low, or will that kind of pruning cause it to stop blooming?*

You can prune crape myrtles severely because they bloom on new growth, but I don't recommend it because the resulting branches will be weak and the flower clusters will tend to flop. You might want to consider one of two options. One is to train your crape myrtle to a single trunk to improve visibility through your window. Many have ornamental bark that is best highlighted this way. The second is to replace it with a dwarf crape myrtle—such as 'Pocomoke', 'Chickasaw', or any of the Razzle Dazzle™ series—which will grow much more slowly.

### THE GRASS DOESN'T GROW

*For years, I've struggled to grow grass in one section of my front yard. I've tried both premium bluegrass and tall fescue blends. I think something may be wrong with the soil. Should I bring in new topsoil?*

Unless you are prepared to add at least six inches of new topsoil—a costly endeavor—this may not solve the problem. Instead, I would recommend you have the soil tested to find out why it's not supporting lawn grass. Send a soil sample to a soil testing lab so you can get a precise reading of its pH and nutrient content. [To locate soil testing labs, click the link with this article on [www.ahs.org](http://www.ahs.org).] Then apply lime or iron sulfate as recommended by the test results to achieve the ideal pH range of 6.5 to 7. At the same time, dig organic matter such as compost or leaf mold into the top six inches of the soil to loosen and aerate it. Then seed the area in the fall, using a grass blend recommended for your region. If the area is heavily shaded by trees or structures, or if it is chronically waterlogged, your best option is to abandon the idea of growing turf and instead create a moss garden or rain garden. [Also see page 14 for lawn alternatives.] —S.A.

*E-mail your gardening questions to Scott Aker at [saker@ahs.org](mailto:saker@ahs.org).*



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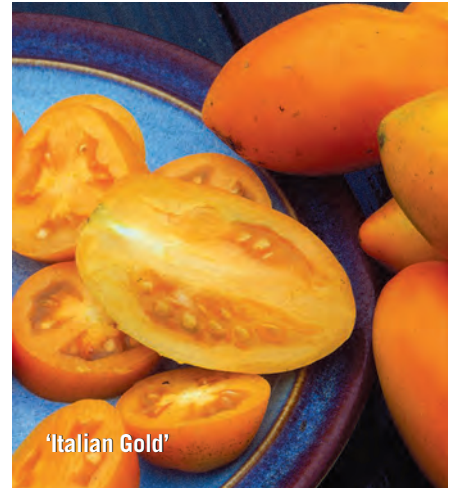
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## Paste Tomatoes Perfected

by Kris Wetherbee



**A**S A SELF-PROFESSED tomato gourmand, I have grown over 100 varieties and tasted more than 200 types. And while flavor is a big factor when it comes to growing any tomato, so is the texture—especially with paste tomatoes. Paste tomatoes (*Solanum lycopersicum*, syn. *Lycopersicon lycopersicum*) are noted for their meaty texture, low moisture content, and few seeds. That's what makes them perfect for fresh cooking, topping pizzas, and making sauces.

The best homemade spaghetti sauce has as much to do with how a tomato was grown as it does with the type of tomato used. So here's how to make sure your paste tomatoes come out perfect—or, at least, near perfect—every time.

### GROWING GUIDELINES

For best flavor, plant tomatoes where they will get a minimum of six hours of direct sun a day. Mulching with a reflecting red plastic mulch (available at many garden supply stores) will help bring more light and heat to fruit. Staking, trellising, or caging your plants will also increase the surface area exposed to light.

Tomatoes thrive in a slightly acidic (pH 6.2 to 6.8), fertile, and well-drained soil. Enrich the soil before planting by applying

rock dust at the rate of 10 pounds per 100 square feet every few years. This is an excellent source for minerals, as are liquid seaweed and kelp-based foliar sprays.

The type of fertilizer you use is critical, because too much nitrogen can result in reduced fruit production and weakened flavor. For prime fruits, use a low-nitrogen (5-10-10) organic fertilizer applied at the rate of two to three pounds per 100 square feet before planting. Side-dress plants with well-rotted manure, compost, or organic fertilizer when the first fruits are the size of marbles. This helps air and water to better

penetrate the soil and gives roots easier access to flavor-enhancing minerals.

Water deeply and consistently so soil moisture stays even. Too much water dilutes the flavor of tomatoes; too little will inhibit flavor production. Mulch plants to help maintain moisture levels and reduce problems such as fruit cracking and blossom-end rot. Reduce watering once fruits reach full size and begin to change color.

### PEST AND DISEASE PREVENTION

Cornworms, whiteflies, flea beetles, and aphids are the most common tomato pests.

### Planting Basics

**GETTING STARTED** Sow seeds indoors six to eight weeks before your last spring frost. Seeds germinate best at temperatures between 75 to 80 degrees Fahrenheit. Pot up seedlings into four-inch pots when the first set of true leaves emerge. For earlier yields, transplant once more into gallon-size pots when seedlings are about six inches tall. Research has shown that periodically brushing the tops of developing seedlings lightly with your hands will result in larger and stockier transplants.

**SPACING** Set out transplants into the ground after frost danger has passed, about 12 to 24 inches apart for determinate varieties; 24 to 36 inches for indeterminate, un-staked varieties; and 15 to 24 inches for staked, caged, or trellised plants. Snip off the lowest sets of leaves and plant the bulk of the stem below the surface. New roots will form along the buried stem, encouraging a healthier and faster-growing plant.

**DAYS TO MATURITY** 55 to 110 days from transplant, depending on the variety, age of seedlings, and growing conditions.

Control aphids with an insecticidal soap, blasting them with water, or by introducing lacewings and/or lady beetles. Prevent flea beetles from feeding on foliage by growing young plants beneath row covers, dusting plants with diatomaceous earth, or introducing beneficial nematodes into your soil to feed on the larvae and pupae of these pests. Wipe out whiteflies with insecticidal soap or horticultural oil. Hosing down plants and introducing natural predators such as lady beetles, lacewings, or whitefly parasites (tiny parasitic wasps) is also effective. Hornworms are easily controlled by hand picking or dusting plants with Bt (*Bacillus thuringiensis*), a biological control that is toxic to caterpillars.

Blossom-end rot is a common problem characterized by sunken brown areas of decayed tissue forming around the bottom of fruits. Caused by a calcium deficiency, this condition is exacerbated by moisture fluctuations, which can interfere with calcium uptake. Incorporate crushed eggshells or oyster shells into the soil to prevent calcium imbalance and mulch to ensure more consistent soil moisture.

## Sources

**Johnny's Selected Seeds**, Winslow, ME. (877) 564-6697.

[www.johnnyseeds.com](http://www.johnnyseeds.com).

**Territorial Seed Company**, Cottage Grove, OR. (800) 626-0866.

[www.territorialseed.com](http://www.territorialseed.com).

**Tomato Growers Supply Company**, Ft. Myers, FL. (888) 478-7333.

[www.tomatogrowers.com](http://www.tomatogrowers.com).

**Totally Tomatoes**, Randolph, WI. (800) 345-5977. [www.totallytomato.com](http://www.totallytomato.com).

Ultimately, the best strategies for warding off tomato pests and diseases are to select pest- and disease-resistant varieties, provide the right conditions to grow a healthy plant, and grow flowering plants nearby that encourage beneficial insects.

## RECOMMENDED VARIETIES

'Super Marzano' and 'Italian Gold' are both prolific and high in pectin, lending a natural creaminess to sauces and pastes. 'San Marzano', 'Opalka', and 'Sausage'

are also very prolific and meaty—great for canning or making spaghetti sauce. 'Granadero', 'Viva Italia', 'Margherita', 'Kada', and 'Saucy' all offer great tomato flavor on disease-resistant vines. For uniquely colored or striped fruits, try 'El Dorado', 'Roman Candle', 'Green Sausage', or 'Speckled Roman'.

## ENJOYING THE HARVEST

Harvest fruits only when they are semi-firm and the color has almost fully developed. Tomatoes picked a few days before they are fully ripe and allowed to sit on the kitchen counter a day or two are typically more flavorful than really ripe tomatoes plucked from the vine when soft.

It's best to store your tomatoes in a single layer in a cool location in your kitchen. Never store tomatoes in the refrigerator, because chilling will reduce sweetness and overall flavor and lead to a mushy texture.

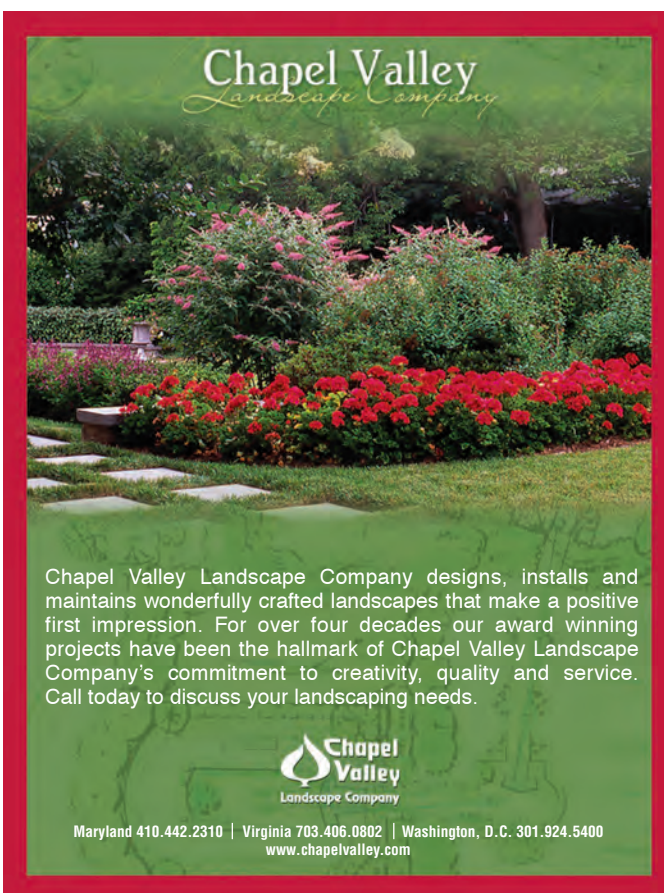
*Kris Wetherbee is a freelance writer based in Oakland, Oregon.*



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## Horticultural News and Research Important to American Gardeners

### GENES PROVIDE NEW HOPE FOR FIGHTING DUTCH ELM DISEASE

Prized for their tall, arching habit and tolerance of air pollution, American elms (*Ulmus americana*) are still integral players in the tree industry despite their susceptibility to Dutch elm disease (DED), which killed off millions of the trees starting in the 1930s. A number of resistant cultivars are available, and breeders



The genetic structure of this naturally disease-resistant American elm near the National Mall in Washington, D.C., may hold the key to breeding similar trees for cultivation.

have developed hybrid selections that have many of the desirable characteristics of the species. Now, a recent discovery about the genetic structure of the American elm may provide breeders with promising options for creating new lines of disease-resistant cultivars.

Researchers with the U.S. Department of Agriculture have found that a small number of elms in the wild are diploids, meaning they have two sets of chromosomes. Prior to this discovery, it was thought that American elms were only tetraploids, having four sets of chromosomes. What makes this exciting is that the

progeny of diploid/tetraploid crosses seem to be especially DED-resistant.

An elm cultivar called 'Jefferson', cloned from a DED-resistant tree found near the National Mall in Washington, D.C., sparked the search for the diploid trees. Genetic testing determined that 'Jefferson' is a cross between the usual tetraploids and a previously unheard-of diploid. No diploid elms were found near the site of the original 'Jefferson', but 21 percent of the trees tested throughout the elm's natural range turned out to be diploids. This indicates that some elm populations may have genetically diverged enough to resist the DED fungus.

### BOMB-SNIFFING PLANTS

Airport security officers could eventually be sharing their posts with some horticultural hazard-detectors. University of Colorado (UC) researchers are developing plants that can change color in the presence of dangerous biological and chemical agents such as anthrax.

"Plants have evolved elaborate mechanisms to sense and respond to their environment," says UC biology professor June Medford. "By using advanced biotechnology methods, we believe we can genetically engineer these mechanisms to produce plant sentinels that can provide an almost immediate warning of biological or chemical agents."

The detection capabilities of these plants are akin to trained dogs or intricate chemical signaling systems, although they would be much more accessible—and cheaper—forms of defense. So far, Medford and her team have engineered plant systems that break down chlorophyll and prevent the plant from creating more, turning the plant from green to white. Now they are working on speeding up the process, which currently takes hours to produce a visible change. After the system has been proven successful, experiments that expose the plants to pollutants or explosive particles will com-

mence. An ultimate goal of the research is to incorporate this mechanism into organisms such as trees and algae so that satellites could monitor harmful agents on a larger scale.

### ENCOURAGING RESULTS FROM GREAT BACKYARD BIRD COUNT

This year's Great Backyard Bird Count (GBBC), a joint project of the Cornell Lab of Ornithology, the National Audubon Society, and Bird Studies Canada, reported record high flocks of birds, as well as flocks of human participants. For the fourth year in a row, surveys counting the birds across the country topped 90,000, with 11.4 million birds observed.

Since 1998, the GBBC has been an annual event where anyone can participate by counting and identifying birds in their area



Each year during the Great Backyard Bird Count, birdwatchers everywhere help record information on all types of birds, including this red-bellied woodpecker in Texas.

in February. Tallies are reported online, where they are combined to offer a snapshot of the year's bird populations and locations. This provides a nationwide, long-term record of bird species and how they may be affected by climate change, urbanization, or disease. For example, American crows seem to be rebounding from the devastation caused by West Nile virus, becoming the seventh most numerous species for the first time in eight years.



This year's list of previously unrecorded birds includes an Asian brown shrike in McKinleyville, California, and a common chaffinch, far from its normal range in Eurasia, observed in Newfoundland and Labrador. In Alaska, a Eurasian brambbling was observed, as well as an invasive collared dove, introduced in Florida in the 1980s.

The 2012 GBBC will be held February 17 to 20. For more information, visit [www.birdsource.org/gbbc](http://www.birdsource.org/gbbc).

### DRYER SHEETS REPEL FUNGUS GNATS

The list of uses attributed to Bounce® fabric softener dryer sheets is seemingly endless. In case you haven't yet received the list by way of a forwarded e-mail from a friend or relative, they have been purported to do practically everything except solve world hunger and keep telemarketers from calling at dinner time. Among the qualities that might be of most interest to gardeners is their reputed ability to repel mosquitoes, bees, gnats, and ants, among other things. But how true are these claims? To find out, researchers from Kansas State University and the University of Illinois tested the

dryer sheets on fungus gnats, whose larvae are common pests of greenhouse-grown crops and house plants.

Several experiments showed that a consistently higher proportion of gnats moved away from dryer sheets than toward them,



Tests show that fungus gnat larvae, above, are repelled by fabric softener dryer sheets.

which seems to bear out the repellent qualities of the sheets. The compounds responsible for this were determined to be linalool—found in lavender, marjoram, and basil—and beta-citronellol—found in roses, geraniums, citronella, and lemon balm. So next time you walk out of the house with one of those dryer sheets acci-

dentally stuck to the back of your shirt, you can say you put it there intentionally to repel bugs.

### THE GOLDEN AGE OF GARDENING

Elderly people who garden generally have a higher perceived quality of life and are more physically active, according to the results of a survey administered by researchers at Texas A&M and Texas State universities. The survey measured five components regarding the quality of life, ranging from degrees of optimism to social self-concepts. The simple question, “Do you garden?” differentiated between gardeners and non-gardeners.

Among adults over age 50, those who gardened scored significantly higher in terms of healthier lifestyles, both physically and mentally. For example, almost twice as many gardeners considered themselves to be “very active” compared to non-gardeners. Gardeners also disagreed with the statement “I feel old and somewhat tired” at a rate of 70.9 percent, compared to 57.3 percent of non-gardeners. On average, gardeners rated their overall health higher than non-gardeners, and re-



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ported eating more fruits and vegetables. The study concludes that gardening, the second most common leisure activity for adults over age 65 after walking, could be a primary way for older adults to decrease their risk of chronic diseases.

### OUTSTANDING PLANTS FOR 2011

Each year, national and regional plant award programs pick out top-performing plants to spotlight species and varieties deserving of more attention. One such program is Plant Select®, a collaborative effort between the Denver Botanic Garden, Colorado State University, and other gardening professionals to promote underutilized plants that thrive in the High Plains and Intermountain region landscapes. To be a Plant Select winner, a plant must be waterwise, noninvasive, easy to propagate, and showy over an extended season.

Two of this year's winners are entirely new to horticulture. White sun daisy (*Osteospermum* 'Avalanche') blooms throughout the summer starting in April, offering simple white flowers that close in the evening to reveal an almost metallic underside. The chartreuse flowers of blue grama grass (*Bouteloua gracilis* 'Blonde Ambition') turn blonde as they age from July through October, and the upright stems refuse to flop over as the winter approaches. This allows the foliage and seed heads a place in the garden even after the blooms fade and the snow falls.

To learn more about all seven Plant Select® winners, visit [www.plantselect.org](http://www.plantselect.org). To view other 2011 regional and national plant award winners, click the link with this article on the AHS website ([www.ahs.org](http://www.ahs.org)).

### OLDEST RECORDED FLOWERING PLANT FOSSIL DISCOVERED IN CHINA

The discovery of the fossilized remains of a buttercup family relative has significantly revised scientist's understanding of how



The discovery of the *Leefructus mirus* fossil, right, has Ge Sun, above right, a paleontology professor at Shenyang Normal University, China, and David Dilcher, a biologist at Indiana University in Bloomington, rewriting the evolutionary timeline of flowering plants. Sun and Dilcher are two of the four co-authors of the *Nature* article.



*Bouteloua gracilis* 'Blonde Ambition', left, and *Osteospermum* 'Avalanche', above, both stand up to the weather of the High Plains.

flowering plants, or angiosperms, evolved. As reported in the March 2011 issue of the journal *Nature*, the intriguing fossilized plant with deeply lobed leaves and a tiny, five-petaled flower was found in an ancient lake bed in northeastern China. Scientists have named the plant *Leefructus mirus*. The rock formation containing the fossil is estimated to be 125 million years old.

Previously, the earliest known evidence for this particular branch of the plant kingdom came from pollen that



was almost two million years younger. Based on this new find, scientists now estimate that angiosperms appeared on earth 10 to 15 million years earlier than previously thought.

“It’s important for us to understand the history and early evolution of flowering plants,” says Hongshan Wang, paleobotany collections manager at the Florida Museum of Natural History in Gainesville and one of the co-authors of the study. “Flowering plants are what we live on—the food we eat, the crops we have, even the furniture we sit on—but we know very little of their early history.”

### PLANTS PROTECTED FROM PESKY POACHERS

Plant poaching in North Carolina has raised concerns over the protection of two species, Venus flytrap (*Dionaea muscipula*) and wandflower (*Galax urceolata*, syn. *G. aphylla*). Recently, the state’s House Agriculture Committee approved a bill that aims to stem unauthorized plant harvests.



Venus flytraps are popular at garden centers, but are disappearing from certain areas of their natural habitat in North Carolina.

House Bill 476 would require anyone buying or selling more than 50 Venus flytraps or five pounds of wandflower at one time to have a dealer permit from the North Carolina Plant Conservation Board, which has already listed Venus flytrap as a “vulnerable” species. It also raises fines for offenders. Flytraps are often sought by collectors, and according to a summary of the House bill, only 35,800 Venus flytraps are estimated to live in the wild, while as many as five million exist in cultivation.

Wandflower is harvested mainly for its decorative leaves, which are used in the florist industry. In the plant’s native range of western North Carolina, several poachers were recently arrested on U.S. Forest Service lands, with 50,000 wandflower plants confiscated in one instance.

The bill’s primary sponsor, Representative Mitch Gillespie, says he hopes the legislation will encourage responsible stewardship of the plants, and the areas they inhabit. The bill, designed to go into effect in October, next goes to the House Finance Committee for consideration.

### SMARTPHONE GARDENING

A garden might be the last place you would expect a 4G network to be helpful, but now there are a number of innovative gardening, plant, and landscaping apps that just might convince you otherwise.

#### Landscape and Garden Calculators:

This app uses your smartphone’s GPS to measure areas and distances. These numbers can then be used as inputs for 18 different calculators that cover a variety of projects from the amount of grass seed needed for your new lawn, to the number of pavers needed in your new landscaping project. You can also figure out how many plants to use in a grid given certain spacing or when to start digging by using the frost tables. (Android, Sidetop Software, \$7.99).

**Dirr’s Tree and Shrub Finder:** Based on Michael Dirr’s reference book, *The Manual of Woody Landscape Plants*, this app holds a library of 1,670 species searchable by common and scientific name. You can also use the app to identify plants by leaf, seed, or flower descriptions. Entries are accompanied by plant photos, hardiness zones, water and light requirements, and growth characteristics. (iPhone, Timber Press Inc., \$14.99).

**iVeggieGarden:** This app features more than 50 vegetables and 500 varieties with extensive growing information such as germination temperatures, soil pH, and harvesting tips. Links to online gardening sites let you purchase seeds or starts without leaving the app, and if you have insect or disease problems, explanations and solutions are just a click away. (iPhone, Moorit Software, \$9.99).

*News written by Editorial Intern Terra-Nova Sadowski.*

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3 SEEDLINGS	TO PLANT THEM ALL SAFELY, UNIFORMLY – and GROWING MORE STRONGLY
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6 SEEDS	To Help GERMINATION Percentage and SPEED EARLIER, BETTER YIELDS, including Vegetables
7 FRUITING	For EARLIER, HEAVIER, BEARING?
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9 HYDROSEEDING	COMPETITIONS
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11 PROPAGATION	24 CUT FLOWERS
12 ANTI-EROSION	25 WEATHER DAMAGE
13 ENVIRONMENTAL IMPROVEMENT	26 WATER GARDENS

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## GREEN GARAGE® by Rita Pelczar

With so many tools and products to choose from, what's a gardener to do to select those that will make indoor and outdoor chores easier, safer, and more efficient? How about getting the scoop from another gardener? Contributing editor Rita Pelczar reports on products she has found useful or innovative in her garden, with an emphasis on earth-friendly products and supplies. Here are a few products you may want to stock in your own "green garage" or garden shed.

### LESS-SHOCK TRANSPLANTING

Starting vegetable, herb, and flower seeds indoors is one of my favorite spring rituals. While there are lots of options when it comes to seed-starting containers, **Rootainers** are great for growing robust seedlings and are particularly useful when trying to transplant species that don't like their roots disturbed.

These patented containers are vertically grooved, which effectively encourages roots to grow downward rather than in the spiraling fashion that often occurs with conventional pots. The relatively large opening at the bottom of each cell helps to root prune the seedlings, stimulating more root formation.

Each 32-cell pack consists of eight four-celled units that fit snugly into a plastic tray. The one-and-a-half-inch square cells are five inches deep—a good size for producing a wide variety of vegetables and flowers. Each four-celled unit is hinged at the bottom and opens downward to expose the roots for easy removal. These containers, which are reusable, also work well for starting cuttings.

**Charley's Greenhouse**, [www.charleysgreenhouse.com](http://www.charleysgreenhouse.com).



### CLEANER RAINBARREL WATER

I water my vegetable garden using rainwater collected in barrels placed under my roof gutters. This reduces runoff and saves money on my water bill. However, algae and organic debris that enters a barrel from roof gutters can build up in collected water; **Healthy Ponds® Rain Barrel Water Cleaner** provides a good solution. It's a plastic dispenser with replaceable packs of naturally occurring bacteria that help to prevent sludge and algae buildup and reduce the organic debris that can foul collected water. Each pack is sufficient to treat up to 150 gallons of water; it is



recommended to replace packs every 30 days. This natural product is safe for both animals and plants.

**Bioverse**, [www.bioverse.com](http://www.bioverse.com).

### CUTTING WITH EASE

Cutting back plants in the garden can be an arduous job. Fiskars offers a couple of tools that can help with this chore.

The **Cuts+More™ Multi-Purpose Scissors** with their titanium-coated blades cut through most herbaceous stems with ease. You can make precision cuts easily, so they are particularly helpful for dianthus, lady's mantle, alpine strawberries, and other perennials that don't need cutting back entirely, just a bit of tidying up. For multitasking, they are equipped with a bottle opener, wire cutter, and a power notch for light rope, plus a sharpener that also serves as a sleeve to protect the blades.



The **Smooth Action Shear Ease® Grass Shears**, above, are designed for ornamental grasses and other perennials with blade-type leaves. They work great on my Siberian irises and liriopse. The stainless steel blades stay sharp through many uses and the head rotates so you can approach your plants from the best angle. It is also handy for trimming the grass that the mower misses along sidewalks and beds.

**Fiskars**, [www.fiskars.com](http://www.fiskars.com).

*A contributing editor for The American Gardener, Rita Pelczar lives in North Carolina. She is the editor-in-chief of the AHS's Homegrown Harvest (Mitchell Beazley/Octopus USA, 2010).*

## Recommendations for Your Gardening Library

### The Artful Garden: Creative Inspiration for Landscape Design

James van Sweden and Tom Christopher. Random House, New York, New York, 2011. 188 pages. Publisher's price, hardcover: \$40.

TO ME, there's always something very striking about a garden by James van Sweden and Wolfgang Oehme. It has less to do with the New American Garden style they developed, with its signature sweeping drifts of perennials and ornamental grasses, and more to do with the fact that what you're really seeing is an interpretation of art. In his latest book, *The Artful Garden*, van Sweden makes the case that the key to successful landscape design is an informed appreciation of music, dance, writing, sculpture, and painting, as well as color and form.

Using case studies from his own gardens and those of other designers, van Sweden demonstrates how your trip to a museum, your evening at the ballet, or your day on the beach with a well-written book can awaken your senses as a designer. Like a good crime novel, he says, "mystery is an essential element of any really pleasurable garden. It's what lures you in through the gate, keeps you moving from spot to spot through the landscape, and fills you with excitement along the way. The sense of mystery is what turns a mere display of plants, paths, and ornaments into an adventure."

To illustrate these concepts, van Sweden takes you to Toronto, where a virtuoso collaboration between cellist Yo-Yo Ma and landscape designer Julie Moir Messervy lets you experience Bach's Suite No. 1 in a walk through the Music Garden. Then it's off to Brazil, where the late artist and designer Roberto Burle Marx used visual rhythms—the repetition of colors and forms—to maximum effect in the garden.

I particularly liked the inclusion in the book of van Sweden's conversations with other artists and how they work: with tapestry designer Jack Lenor Larsen, sculptors Grace Knowlton and Robert Adzema, painter Robert Dash, landscape architects Lawrence Halprin and Martha Schwartz, and Dutch designer Piet Oudolf. Beautiful photographs of gardens and art works throughout the book, as well as drawings, help to illustrate van Sweden's main ideas and how to put them into practical use.

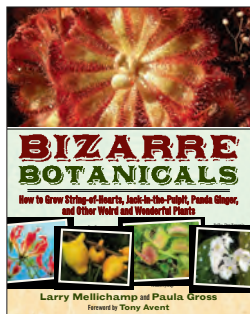
—Jane Berger

Jane Berger is a landscape designer in Woods Hole, Massachusetts. She blogs at [www.gardendesignonline.com](http://www.gardendesignonline.com).

### Bizarre Botanicals

Larry Mellichamp and Paula Gross. Timber Press, Portland, Oregon, 2010. 283 pages. Publisher's price, hardcover: \$24.95.

I KNOW OF no better way to turn someone into a budding botanist than to introduce them to the kookiest representatives of the plant world, which is rife with sex, manipulation, death, destruction, and bleeding hearts. These weird and unusual plants capture the imaginations of casual gardeners and die-hard plant geeks alike.



That being the case, Larry Mellichamp and Paula Gross will create many converts with their book, *Bizarre Botanicals*. Nearly 80 plants are profiled in 10 well-organized

chapters with compelling and grin-worthy subtitles. "Blades of Glory," "The Protection Racket," "The Flies' Demise," and "Natural Sexual Enhancement" are great teasers leading into fun, concise descriptions of unusual plant species. Reading through the book is like crawling alongside the authors on hands and knees discovering the magic of panda ginger (*Asarum maximum*), the flair and drama—not to mention stink—of titan arum (*Amorphophallus titanum*), the steaminess of pitcher plants (*Sarracenia* and *Nepenthes*), and many other bizarre plants.

In case you want to try growing these plants at home, most are relatively easy to obtain. The authors give each plant a difficulty rating of 1 to 3, and provide specific cultural information, light requirements, hardiness, moisture, and preferred growing medium. Cautions are included for plants "with issues," say, poisonous sap, tendencies to proliferate, and unpleasant odors.

I've grown and cared for almost two-thirds of these oddballs myself. Devil's thorn (*Solanum pyracanthum*) and the flying dragon variant of trifoliate orange (*Poncirus trifoliata*) both drew blood. Sadly, I managed to kill the dragon before I could reap the fruits. Thanks to this book, I may try to tame that plant again. And I've always lusted for a mini bog garden of pitcher plants, so maybe now I'll give that a go.

This would be a great book to spark the curiosity of any young people in your life, but also an entertaining read for someone who thinks they've seen it all when it comes to plants.

—Mary Ann Newcomer

Mary Ann Newcomer appears regularly as the Dirt Diva on the River Radio, 94.9 FM in Boise, Idaho. She is the author of the Rocky Mountain Gardener's Resource Guide, to be published later this year. For more about her, turn to page 12.

## Founding Gardeners

Andrea Wulf. Knopf, New York, New York, 2011. 352 pages. Publisher's price, hardcover: \$30.

POLITICS AND HORTICULTURE may seem unlikely bedfellows, but in *Founding Gardeners*, Andrea Wulf makes a convincing argument that America's founding fathers' passion for agriculture and gardening played a significant role in founding the country. Throughout the text she interweaves highlights of the political events of the time with the horticultural and agricultural issues also on the minds of the key players.

For example, on the eve of the British invasion of New York City, when the British forces outnumbered the entire population of the city by one and a half, George Washington took time off from battle preparations to write a long letter to his estate manager describing the trees he wanted to have planted at Mount Vernon, his plantation in Virginia.

Similarly, frustrated with stymied trade negotiations in London after the Revolutionary War, Thomas Jefferson and John Adams set off for a whirlwind tour of British gardens. What delighted them most was their realization that the world-famous "English gardens" were heavily populated with American

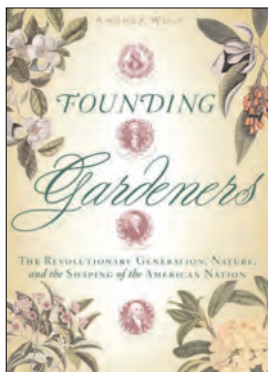
native plants. They reveled in the irony that these gardens were, in fact, "American."

Perhaps most intriguing is Wulf's conviction that a particular garden changed the tide of American history. Weary of the contentious debate over state representation at the Constitutional Convention in 1787, James Madison, Alexander Hamilton, George Mason, and five other delegates broke for a field trip to botanist John Bartram's renowned nursery and garden just outside Philadelphia. Wulf writes, "In Bartram's garden, the delegates could see how the manifold flora of each state thrived together, their branches intertwined in a flourishing horticultural union." Two days later, the Connecticut Plan, a compromise proposal for state representation, passed by a narrow margin. The deciding votes were cast by three delegates who changed sides after their "three-hour walk on a cool summer morning among the United States of America's most glorious trees and shrubs."

Through these and other anecdotes, *Founding Gardeners* offers an original, insightful look at the characters and passions of the men who shaped our country. Wulf's colorful prose, superb research, and driving narrative make for an engrossing read that will give you new appreciation for horticulture's influence on history.

—Catriona Tudor Erler

Catriona Tudor Erler is the author of nine garden books, including *Landscaping for Your Home*. Her articles and photographs have appeared in magazines and books in both the United States and Great Britain.



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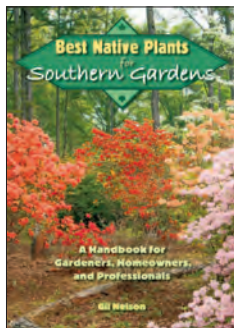
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## Regional Gardening Guides

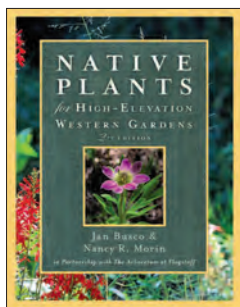
**WE** ARE ALL AWARE that gardening in Maine is quite different than gardening in California, and that the plant palette in the desert Southwest looks unlike what grows in the Pacific Northwest. Ergo, gardening books tailored to particular geographic regions, states, or even cities often get much more specific than those designed for general reference. This greater level of detail almost guarantees you'll learn something new—plants, techniques, insights, ideas—about gardening in your area that will help you wield your trowel and pruners with more success. Here are a few recent examples to consider.



*Designing Gardens with Flora of the American East* (Rutgers University Press, 2010, \$23.95) by Carolyn Summers provides East Coast gardeners with design ideas for both conventional landscapes and those based on natural plant communities, as well as extensive native plant lists—particularly for alternatives to common invasive plants.



*Best Native Plants for Southern Gardens* (University Press of Florida, 2010, \$29.95) by Gil Nelson is aimed at gardeners from Virginia to northern Florida and west to Alabama and Mississippi. It describes popular groups such as magnolias, vines, and azaleas, as well as 100 top-performing natives for southern gardens, particularly those with “broad natural ranges, wide adaptability, and successful garden performance.”



For Western gardeners at altitudes of 5,000 feet and above, there's *Native Plants for High-Elevation Western Gardens* (Fulcrum, 2010, \$29.95) by Jan Busco & Nancy R. Morin. Similar to the original book published in 2003, this second edition profiles more than 150 native plants that can take the region's harsh climate in stride. This edition includes new information gathered from ongoing trials and lots of additional color photographs.



From the funky to the fabulous, *Hot Pots* by Scott Calhoun and Lynn Hassler (Rio Nuevo, 2009, \$19.95) is packed with creative container gardening ideas for the Southwest. Chapters cover container selection, the plants and soil to fill them with, how to arrange everything, and how to keep your hot pots looking good.



A spectacular garden tour in book form, *Gardens of Santa Fe* (Gibbs Smith, 2010, \$30) by Anne Hillerman offers a tantalizing glimpse of the city's most lovely private and public gardens. This book showcases plants, designs, and other ideas you can use in your own garden—especially if you live in the Desert Southwest.



*A Californian's Guide to the Trees Among Us* (Heyday Books, 2011, \$18.95) by Matt Ritter includes 150 trees commonly found in the Golden State's urban and suburban areas. California gardeners would do well to consult it when looking for trees to add to their property. The brief, information-packed profiles could help you decide which trees would work best for your property, as well as steer you away from some of the more weedy species.

—Viveka Neveln, Associate Editor

## REGIONAL HAPPENINGS

### Horticultural Events from Around the Country

#### NORTHEAST

CT, MA, ME, NH, NY, RI, VT

**RAP** THROUGH JULY 31. **Green Currency: Plants in the Economy.** Botanical art exhibition. American Society of Botanical Artists. New York Botanical Garden. Bronx, New York. (718) 817-8700. [www.nybg.org](http://www.nybg.org).

**RAP** MAY 19. **The Story of the American Chestnut.** Lecture. Coastal Maine Botanical Gardens. Boothbay, Maine. (207) 633-4333. [www.maine gardens.org](http://www.maine gardens.org).

**RAP** MAY 21. **Plant Sale.** Merryspring Nature Center. Camden, Maine. (207) 236-2239. [www.merryspring.org](http://www.merryspring.org).

Events hosted by botanical gardens and arboreta that participate in AHS's Reciprocal Admissions Program are identified with the **RAP** symbol. Current AHS members showing a valid membership card are eligible for free or discounted admission to the garden or other benefits. Special events may not be included; contact the host site for details or visit [www.ahs.org/events/reciprocal\\_events.htm](http://www.ahs.org/events/reciprocal_events.htm).

JUNE 3–19. **Fields of Lupine Festival.** Franconia Notch Chamber of Commerce. Franconia, New Hampshire. (603) 823-5661. [www.franconianotch.org](http://www.franconianotch.org).

**RAP** JUNE 11. **Homegrown.** Food and flora festival. Brooklyn Botanic Garden. Brooklyn, New York. (718) 623-7200. [www.bbq.org](http://www.bbq.org).

**RAP** JUNE 15–AUG. 31. **Native Buzz: Creative Container Gardening for Pollinators.** Exhibit. New England Wild Flower Society. Framingham, Massachusetts. (508) 877-7630. [www.newenglandwild.org](http://www.newenglandwild.org).

JUNE 15–19. **This Glorious Earth.** International flower show. Seaport World Trade Center. Boston, Massachusetts. (508) 295-9079. [www.wafausa.org](http://www.wafausa.org).

JUNE 26 & 27. **Connecticut Historic Gardens Day.** Garden tour. Roseland Cottage. Woodstock, Connecticut. (860) 928-4074. [www.historicnewengland.org](http://www.historicnewengland.org).

#### Looking ahead

JULY 17–19. **Historic New England Hosta Sale.** Lyman Estate Greenhouses. Waltham, Massachusetts. (781) 891-1985. [www.historicnewengland.org](http://www.historicnewengland.org).

#### MID-ATLANTIC

PA, NJ, VA, MD, DE, WV, DC

MAY 21. **Earthly Delights.** Plant sale, lectures. Friends of Earthly Delights and the Land Conservancy of New Jersey. Pottersville, New Jersey. E-mail: [jeanne.will@earthlink.net](mailto:jeanne.will@earthlink.net). [www.earthlydelightsnj.com](http://www.earthlydelightsnj.com).

MAY 21. **Party with the Peonies.** Private garden tour. Sponsored by Brookside Gardens. Fulton, Maryland. (301) 962-1400. [www.montgomeryparks.org/brookside](http://www.montgomeryparks.org/brookside).

MAY 28–OCT. 10. **Green Genes: Mapping the Plant World.** Exhibit. U.S. Botanic Garden. Washington, D.C. (202) 225-8333. [www.usbg.gov](http://www.usbg.gov).

MAY 28 & 29. **Richmond Rose Society Show.** Lewis Ginter Botanical Garden. Richmond, Virginia. (804) 262-9887. [www.lewisginter.org](http://www.lewisginter.org).

MAY 29–JUNE 12. **Bonsai Bling: Azalea Bonsai in Bloom.** Exhibit. U.S. National Arboretum. Washington, D.C. (202) 245-2726. [www.usna.usda.gov](http://www.usna.usda.gov).

JUNE 18. **Edible Flowering Plants for the Garden.** Workshop. Tudor Place Historic House

### Garden Walk Buffalo

FROM HUMBLE beginnings in 1995, Garden Walk Buffalo in Buffalo, New York, has blossomed into one of the nation's largest garden tours comprising hundreds of participating gardens, both private and public. This year's event, set for July 30 and 31, will include many different kinds of gardens, from planted traffic medians to tiny townhouse frontyards and manicured mansion landscapes, all located within walking distance of each other.

"Buffalo has a tremendously creative gardening community," says Jim Charlier, president of Garden Walks Buffalo. "Each garden is customized and personal, and they mesh with the intimate spaces of the area."

In addition to spotlighting urban gardening at its best, Garden Walk Buffalo also gives back to the community through beautification grants. In the last seven years, more than \$30,000 has been donated to various urban gardening projects and groups.

"The thing I'm most proud of is our reach into Buffalo's West side, where there are some streets that haven't seen love in a lot of years," says Charlier. At one point, Charlier's own street in the West side was the only participating garden. Now, there are 16. "Home values have gone up, and so has the walkability and safety of the area. This wouldn't have happened if not for people showing off their gardens for the tours," says Charlier.

For more information, visit [www.gardenwalkbuffalo.com](http://www.gardenwalkbuffalo.com). Maps of the self-guided tour will be available online the first week of July.

—Terra-Nova Sadowski, Editorial Intern





and Garden. Washington, D.C. (202) 965-0400. [www.tudorplace.org](http://www.tudorplace.org).

JUNE 21. **Pollinator Conservation Planning.** Short course. Xerces Society for Invertebrate Conservation. National Plant Materials Center. Beltsville, Maryland. (855) 232-6639. [www.xerces.org](http://www.xerces.org).

JULY 2. **Tour of Back Mountain Gardens.** Garden tour and flower show. The Back Mountain Bloomers Garden Club. Dallas, Pennsylvania. (570) 696-5082. [www.backmountainbloomers.org](http://www.backmountainbloomers.org).

## SOUTHEAST

AL, FL, GA, KY, NC, SC, TN

**RAP** MAY 21 & 22. **Bonsai Society Show.** Atlanta Botanical Garden. Atlanta, Georgia. (404) 876-5859. [www.atlantabotanicalgarden.org](http://www.atlantabotanicalgarden.org).

**RAP** MAY 24. **Kitchen Cabinet Remedies.** Class. The State Botanical Garden of Georgia. Athens, Georgia. (706) 542-1244. [www.uga.edu/botgarden](http://www.uga.edu/botgarden).

MAY 27-29. **Iris Festival.** Sumter, South Carolina. (803) 436-2640. [www.irisfestival.org](http://www.irisfestival.org).

**RAP** MAY 27-29. **South Florida Cactus and Succulent Society Plant Show and Sale.**

Fairchild Tropical Botanic Garden. Coral Gables, Florida. (305) 667-1651. [www.fairchildgarden.org](http://www.fairchildgarden.org).

JUNE 4. **Crescent Hill Garden Club Tour.** Louisville, Kentucky. (502) 899-1899. [www.crescenthillgardentour.org](http://www.crescenthillgardentour.org).

**RAP** JUNE 5, 12, & 19. **Orchids in the Windowsill.** Class. Memphis Botanical Garden. Memphis, Tennessee. (901) 636-4128. [www.dixon.org](http://www.dixon.org).

**RAP** JUNE 11. **Using Hypertufa in the Garden.** Workshop. Cape Fear Botanical Garden. Fayetteville, North Carolina. (910) 486-0221. [www.capefearbg.org](http://www.capefearbg.org).

**RAP** JUNE 15. **Birmingham Fern Society's Show & Sale.** Birmingham Botanical Gardens. Birmingham, Alabama. (205) 414-3950. [www.bbgardens.org](http://www.bbgardens.org).

**RAP** JUNE 25. **Tropical Fruit Festival.** Rare Fruit Council. Mounts Botanical Garden. West Palm Beach, Florida. (561) 233-1757. [www.mounts.org](http://www.mounts.org).

### Looking ahead

JULY 1-OCT. 23. **Tiffany at Biltmore.** Art and garden display. Biltmore House & Gardens. Asheville, North Carolina. (800) 411-3812. [www.biltmore.com](http://www.biltmore.com).

## NORTH CENTRAL

IA, IL, IN, MI, MN, ND, NE, OH, SD, WI

**RAP** MAY 22. **Art in the Garden Fair.** Taltree Arboretum & Gardens. Valparaiso, Indiana. (219) 462-0025. [www.taltree.org](http://www.taltree.org).

**RAP** JUNE 3. **Piet Oudolf's Landscapes in Landscapes.** Lecture. Fernwood Botanical Garden & Nature Preserve. Niles, Michigan. (269) 695-6491. [www.fernwoodbotanical.org](http://www.fernwoodbotanical.org).

**RAP** JUNE 3-5. **Garden Fair.** Outdoor living marketplace. Klehm Arboretum & Botanic Garden. Rockford, Illinois. (815) 965-8146. [www.klehm.org](http://www.klehm.org).

**RAP** JUNE 4. **Coleus Sale.** Polk County Master Gardeners. Des Moines Botanical and Environmental Center. Des Moines, Iowa. (515) 323-6290. [www.botanicalcenter.org](http://www.botanicalcenter.org).

JUNE 11. **Summerfest.** Herb-themed program. Illinois Herb Association. Washington Park Botanical Garden. Springfield, Illinois. (217) 762-7983. [www.specialtygrowers.org/whats\\_new.htm](http://www.specialtygrowers.org/whats_new.htm).

**RAP** JUNE 11 & 12. **Show of Summer: Botanica.** Flower show and exhibits. Garden Club of America. Chicago Botanic Garden. Glencoe, Illinois. (847) 835-5440. [www.showofsummer.com](http://www.showofsummer.com).

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JUNE 13–17. **Creativity Rocks: International Design Conference.** Association of Professional Landscape Designers. Cleveland, Ohio. (717) 238-9780. [www.apld.org](http://www.apld.org).

**RAP** JUNE 19–SEPT. 25. **Gnome and Garden.** Garden art display. Holden Arboretum. Kirtland, Ohio. (405) 946-4400. [www.holdenarb.org](http://www.holdenarb.org).

JUNE 24–26. **Peace Festival 2011.** International Peace Garden. Dunseith, North Dakota. (204) 534-2303. [www.peacegarden.com](http://www.peacegarden.com).

#### SOUTH CENTRAL

AR, KS, LA, MO, MS, OK, TX

**RAP** JUNE 4. **Hot Bloomers for Summer Landscapes & Patio.** Seminar. South Texas Botanical Gardens & Nature Center. Corpus Christi, Texas. (361) 852-2100. [www.stxbot.org](http://www.stxbot.org).

**RAP** JUNE 6–10. **Earth Partnership for Schools Summer Institute.** Youth gardening training program. Dyck Arboretum of the Plains. Hesston, Kansas. (620) 327-8127. [www.dyckarboretum.org](http://www.dyckarboretum.org).

JUNE 11. **Festival in the Park.** Will Rogers Gardens. Oklahoma City, Oklahoma. (405) 943-0927. [www.okc.gov/parks/will\\_rogers/index.html](http://www.okc.gov/parks/will_rogers/index.html).

**RAP** JUNE 11. **Through the Garden Gate Tour.** Flower, Garden and Nature Society of Northwest Arkansas. The Botanical Garden of the Ozarks. Fayetteville, Arkansas. (479) 442-4640. [www.bgozarks.org](http://www.bgozarks.org).

**RAP** JUNE 12. **St. Louis Garden Tour.** Missouri Botanical Garden. St. Louis, Missouri. (314) 577-5180. [www.mobot.org](http://www.mobot.org).

JUNE 16–18. **A Little Bit of Heaven in 2011.** Convention. The Gardeners of America/Men's Garden Clubs of America. Overland Park, Kansas. (913) 722-5562. [www.tgoa-mgca.org](http://www.tgoa-mgca.org).

**RAP** JUNE 18. **Burden Center Garden Festival.** Burden Horticulture Society. Baton Rouge, Louisiana. (225) 763-3990. [www.burdenhorticulturesociety.com](http://www.burdenhorticulturesociety.com).

**RAP** JULY 3. **Daylily Show.** Botanica, the Wichita Gardens. Wichita, Kansas. (316) 264-0448. [www.botanica.org](http://www.botanica.org).

#### SOUTHWEST

AZ, NM, CO, UT

**RAP** JUNE 5. **Annual Garden Tours.** Santa Fe Botanical Garden. Santa Fe, New Mexico. (505) 471-9103. [www.santafebotanicalgarden.org](http://www.santafebotanicalgarden.org).

JUNE 16. **Green Roofs for the West Sympo-**

## Lavender Festival Debuts in Colorado



FROM JULY 15 to 17, the Lavender Association of Western Colorado (LAWC) will hold its first annual Lavender Festival in Palisade, Colorado. The event will highlight the many uses of the plant, from perfume and bouquets to cooking and crafts.

“There are so many things you can do with lavender,” says LAWC President Kathy Kimbrough, “it’s not just a pretty face in the garden.” She is hopeful that the festival will help promote the herb as a local alternative cash crop, because it is well suited for the area’s dry weather and high altitude.

Festival participants can attend workshops, demonstrations, and seminars revolving around the herb. There will be activities for kids, and vendors will be selling lavender spa items, confections, fresh and dried bundles, and much more. The Colorado State University Extension and local growers will be there to offer advice for cultivating lavender as well.

“The farm tour is going to be the big event,” says Kimbrough. “We’re going to visit four lavender farms, watch an essential oil distillation, eat lunch with a lavender-inspired menu, and end with a wine and cheese reception at a local winery.”

The festival is set to coincide with the peak of the bloom season, featuring 15 different varieties of lavender. Tickets and more information are available at [www.coloradolavender.org](http://www.coloradolavender.org).

—Terra-Nova Sadowski, Editorial Intern

**sium.** Denver Botanic Gardens. Denver, Colorado. (720) 865-3500. [www.growwest.org](http://www.growwest.org).

**RAP** JUNE 17. **A Night of Wine and Roses.** Flower arranging and hors d'oeuvres. Desert Botanical Garden. Phoenix, Arizona. (480) 941-1225. [www.dbg.org](http://www.dbg.org).

JUNE 17. **Weird Plant Sale.** Tucson Botanical Gardens. Tucson, Arizona. (520) 326-9686. [www.tucsonbotanical.org](http://www.tucsonbotanical.org).

**RAP** JUNE 25. **Hummingbird Festival.** Co-sponsored by Arizona Game and Fish Department. Speakers, crafts, and plant and

hummingbird merchandise sale. The Arboretum at Flagstaff. Flagstaff, Arizona. (928) 774-1442. [www.thearb.org](http://www.thearb.org).

JUNE 25. **Pollinator Celebration.** BioPark Botanic Garden. Albuquerque, New Mexico. (505) 768-5300. [www.cabq.gov/biopark](http://www.cabq.gov/biopark).

#### Looking ahead

JULY 11–17. **Crested Butte Wildflower Festival.** Garden tours, gardening workshops, and cooking and photography classes. Crested Butte Nordic Center. Crested Butte, Colorado. (970) 349-2571. [www.crestedbuttewildflowerfestival.com](http://www.crestedbuttewildflowerfestival.com).

## WEST COAST

CA, NV, HI

**RAP** MAY 21. **Ladybug Day.** Ladybug population estimate project. San Diego Botanic Garden. Encinitas, California. (760) 436-3036. [www.sdbgarden.org](http://www.sdbgarden.org).

**RAP** JUNE 4. **Drip Irrigation.** Class. The Gardens at the Springs Preserve. Las Vegas, Nevada. (702) 822-7700. [www.springspreserve.org](http://www.springspreserve.org).

JUNE 4. **San Clemente Garden Club Garden Tour.** San Clemente, California. (949) 498-2818. [www.sanclementegardenclub.com](http://www.sanclementegardenclub.com).

JUNE 8. **California Grown Show.** California Association of Nurseries and Garden Centers. Long Beach Convention Center. Long Beach, California. (916) 928-3900. [www.cangc.org](http://www.cangc.org).

JUNE 10–JULY 4. **Paul Ecke Jr. Flower & Garden Show.** San Diego County Fair. Del Mar Fairgrounds. Del Mar, California. (858) 792-4207. [www.sdfair.com](http://www.sdfair.com).

**RAP** JUNE 12. **Around the World in 80 Oaks.** Musical garden tour. U.C. Davis Arboretum. Davis, California. (530) 752-4880. [www.arboretum.ucdavis.edu](http://www.arboretum.ucdavis.edu).

JUNE 12. **Graywater System Design.** Workshop. Occidental Arts and Ecology Center. Occidental, California. (707) 874-1557 ext. 201. [www.oaec.org](http://www.oaec.org).

JUNE 15. **Native Plant Tour.** May Arboretum Nursery & Burke Garden. Rancho San Rafael Regional Park. Reno, Nevada. (775) 785-5961. [www.washoecounty.us/parks](http://www.washoecounty.us/parks).

JUNE 18. **Aromatic First Aid with Garden Plants.** Garden walk and class. San Francisco Botanical Garden. San Francisco, California. (415) 661-1316. [www.sfbotanicalgarden.org](http://www.sfbotanicalgarden.org).

JUNE 22–26. **Lompoc Valley Flower Show.** Ryon Park. Lompoc, California. (805) 735-8511. [www.flowerfestival.org](http://www.flowerfestival.org).

## NORTHWEST

AK, ID, MT, OR, WA, WY

MAY 27–JUNE 12. **Portland Rose Festival.** Portland, Oregon. (503) 227-2681. [www.rosefestival.org](http://www.rosefestival.org).

MAY 28 & 29. **American Peony Society Convention.** Wilsonville, Oregon. (816) 459-9386. [www.americanpeonysociety.org](http://www.americanpeonysociety.org).

**RAP** JUNE 9. **A Midsummer Gala in the Garden.** Music, food, tours, and art show. Alaska Botanical Garden. Anchorage, Alaska. (907) 770-3692. [www.alaskabg.org](http://www.alaskabg.org).

ka. (907) 770-3692. [www.alaskabg.org](http://www.alaskabg.org).

**RAP** JUNE 12. **Savor Idaho.** Garden tour, wine and food tasting. Idaho Botanical Garden. Boise, Idaho. (208) 343-8649. [www.savoridaho.org](http://www.savoridaho.org).

JUNE 24–26. **Gardening in 3D: Dichotomy, Diversity & Desire.** Study weekend. Portland State University. Portland, Oregon. (503) 224-5718. [www.hardyplantsociety.org](http://www.hardyplantsociety.org).

### Looking ahead

JULY 15–17. **Sequim Lavender Festival.** Sequim Lavender Growers Association. Sequim, Washington. (360) 670-8150. [www.lavenderfestival.com](http://www.lavenderfestival.com).

JULY 17. **West Seattle Garden Tour.** Seattle, Washington. (206) 324-2061. [www.westseattlegardentour.com](http://www.westseattlegardentour.com).

## CANADA

**RAP** MAY 28 & 29. **Toronto Bonsai Society Annual Show.** Toronto Botanical Garden. Toronto, Ontario. (416) 397-1341. [www.torontobotanicalgarden.ca](http://www.torontobotanicalgarden.ca).

MAY 29–JUNE 3. **American Iris Society National Convention.** Fairmont Empress Hotel. Victoria, British Columbia. (800) 441-1414. [www.bc-iris.org](http://www.bc-iris.org).

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## PRONUNCIATIONS AND PLANTING ZONES

Most of the cultivated plants described in this issue are listed here with their pronunciations, USDA Plant Hardiness Zones, and AHS Plant Heat Zones. These zones suggest a range of locations where temperatures are appropriate—both in winter and summer—for growing each plant.

While the zones are a good place to start in determining plant adaptability in your region, factors such as exposure, moisture, snow cover, and humidity also play an important role in plant survival. The zones tend to be conservative; plants may grow outside the ranges indicated. A USDA zone rating of 0–0 means that the plant is a true annual and completes its life cycle in a year or less.

### A–D

***Achillea tomentosa*** ah-kih-LEE-uh  
toh-men-TOH-suh (USDA Zones 3–8,  
AHS Zones 8–1)

***Agastache foeniculum*** ah-GAH-stah-she  
fee-NICK-yoo-lum (4–11, 12–5)

***Allium cernuum*** AL-ee-um SAIR-new-um  
(3–9, 9–5)

***Amorphophallus titanum*** uh-mor-fo-PHAL-  
lus ty-TAN-um (11, 12–10)

***Arctostaphylos uva-ursi*** ark-toh-STAFF-ih-  
loss YOO-vuh-UR-sy (2–6, 6–1)

***Asarum maximum*** uh-SAR-um  
MAKS-ih-mum (5–8, 8–4)

***Baptisia australis*** bap-TIZ-yuh  
aw-STRAY-liss (3–9, 9–1)

***Bouteloua gracilis*** boo-teh-LOO-uh  
GRASS-ih-liss (5–9, 12–4)

***Castanea crenata*** kas-TAY-nee-uh  
kreh-NAY-tuh (5–9, 9–5)

***C. dentata*** C. den-TAY-tuh (4–8, 8–1)

***C. mollissima*** C. mol-LISS-ih-muh  
(4–8, 8–1)

***C. sativa*** C. sah-TEE-vuh (5–7, 7–5)

***Carex praegracilis*** KAIR-eks pre-GRASS-  
ih-lis (4–8, 8–1)

***Cephalotaxus harringtonia*** sef-uh-lo-TAK-  
suss hair-ring-TOH-nee-uh (6–9, 9–3)

***Cerastium tomentosum*** seh-RASS-tee-um  
toh-men-TOH-sum (3–7, 7–1)

***Cymbalaria muralis*** sym-buh-LAIR-ee-uh  
myoo-RAY-liss (7–9, 9–1)

***Delosperma ashtonii*** del-o-SPER-muh  
ash-TOH-nee-eye (5–9, 9–5)

***Deschampsia cespitosa*** deh-SHAMP-see-  
uh sez-pih-TOH-suh (5–9, 9–1)

***Dionaea muscipula*** dy-o-NEE-uh  
mus-KIP-yew-luh (8–11, 12–1)

### E–R

***Echinacea purpurea*** ek-ih-NAY-see-uh  
pur-PUR-ee-uh (3–9, 9–1)

***Filipendula rubra*** fih-lih-PEN-dyew-luh  
ROO-bruh (3–9, 9–1)

***Galax urceolata*** GAY-laks er-see-o-LAY-tuh  
(5–8, 8–5)

***Galium odoratum*** GAY-lee-um o-doh-RAY-  
tum (5–8, 8–5)

***Geranium* × *cantabrigiense*** juh-RAY-nee-  
um kan-tuh-brij-ee-EN-see (5–8, 8–5)

***Humulus lupulus*** HEW-mew-lus  
LEW-pew-lus (4–8, 8–1)

***Isotoma fluviatilis*** eye-so-TOH-muh  
flu-vee-AT-ih-liss (5–9, 9–4)

***Liatris aspera*** ly-AY-triss ASS-pur-uh  
(3–9, 9–1)

***L. punctata*** L. punk-TAY-tuh (4–9, 9–1)

***L. pycnostachya*** L. pik-no-STAKE-ee-uh  
(3–9, 9–2)

***L. scariosa*** L. skar-ee-O-suh (3–8, 8–3)

***L. scariosa* var. *novae-angliae*** L. skar-ee-O-  
suh var. NO-vee-ANG-lee-ay (3–7, 7–3)

***L. spicata*** L. spy-KAY-tuh (4–9, 9–1)

***L. squarrosa*** L. skwa-RO-suh (5–9, 9–5)

***Lamium galeobdolon*** LAM-ee-um  
gal-ee-OB-doh-lon (4–8, 8–1)

***Leptinella squalida*** lep-tih-NEL-uh  
SKWA-lih-duh (4–7, 7–1)

***Liriope muscari*** lih-RY-o-pee mus-KAR-eye  
(6–10, 12–1)

***Lysimachia nummularia*** liss-ih-MAHK-  
ee-uh noom-yew-LAIR-ee-uh (4–8, 8–1)

***Mentha requienii*** MEN-thuh rek-wee-EN-  
ee-eye (6–9, 9–6)

***Monarda didyma*** moh-NAR-duh  
DID-ih-muh (4–10, 10–1)

***Pachysandra terminalis*** pak-ih-SAN-druh  
ter-mih-NAL-iss (4–8, 8–1)

***Parthenium integrifolium*** par-THEE-  
nee-um in-teg-rih-FO-lee-um (4–8, 8–3)

***Poncirus trifoliata*** pon-SEER-us  
try-fo-lee-AY-tuh (5–9, 9–5)

***Rhus aromatica*** RUS ah-ro-MAT-ih-kuh  
(2–8, 8–1)

### S–Z

***Sagina subulata*** suh-JY-nuh sub-yew-LAY-  
tuh (4–7, 7–1)

***Sarcococca hookeriana* var. *humilis***  
sar-kuh-KOKE-uh hook-ur-ee-AN-uh var.  
HEW-mih-lis (6–9, 9–6)

***Schizachyrium scoparium*** skits-ah-KEER-  
ee-um sko-PAR-ee-um (3–9, 9–1)

***Sedum acre*** SEE-dum AY-kur (3–8, 8–1)

***Sempervivum tectorum*** sem-pur-VEE-vum  
tek-TOR-um (3–8, 8–1)

***Solanum lycopersicum*** so-LAH-num  
ly-ko-PER-sih-kum (11, 12–1)

***S. pyracanthum*** S. py-ruh-KAN-thum  
(9–11, 12–5)

***Sporobolus heterolepis*** spor-OB-o-lus  
het-ur-o-LEP-iss (3–8, 10–2)

***Stachys byzantina*** STAY-kiss bih-zan-TY-  
nuh (4–8, 8–1)

***Symplocarpus foetidus*** sym-plo-KAR-pus  
FEE-tih-dus (3–7, 8–2)

***Thymus serpyllum*** TY-muss sur-PIL-lum  
(4–9, 9–1)

***T. × citriodorus*** T. sih-tree-o-DOR-us  
(5–9, 9–1)

***Trachelospermum asiaticum*** tray-kell-o-  
SPUR-mum ay-zee-AT-ih-kum  
(7–11, 12–7)

***Tricyrtis hirta*** try-SUR-tiss HUR-tuh  
(4–9, 9–1)

***Veronica repens*** ver-ON-ih-kuh REP-enz  
(3–8, 8–1)

***Waldsteinia ternata*** wald-STY-nee-uh  
ter-NAY-tuh (3–8, 8–1)

## GARDEN MARKET

CLASSIFIED AD RATES: All classified advertising must be prepaid. \$2.75 per word; minimum \$66 per insertion. Copy and prepayment must be received by the 20th of the month three months prior to publication date. Display ad space is also available. To place an ad, call (703) 768-5700 ext. 120 or e-mail [advertising@ahs.org](mailto:advertising@ahs.org).

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## Redhead Coleus Sails Through Summer Heat

by Patricia A. Taylor

**L**IKE MANY garden communicators, I often receive samples of new varieties from plant development or marketing companies to test out in my garden. This perk has its pluses and minuses. On the one hand, it can be fun to try new introductions before they are readily available. On the other hand, we are obligated—if we want to receive more samples—to grow plants that we may not particularly like.

Last spring, the packing slip on a box of sample plants I received listed a coleus called Redhead among the offerings. I wasn't thrilled because, in my experience, these generally multi-colored, often frilly annuals are sometimes difficult to harmoniously place in mixed borders.

### STUNNING COLOR

When I opened the box, however, I was immediately smitten with a six-pack of the most beguiling red foliage plants I have ever come across. Apparently, my reaction was not unusual. Mary O'Connor, global product manager for Ball Horticultural Company, which developed the plant, says she felt the same way when she saw it growing in one of the firm's trial fields. "It's like a beautiful redhead," she thought—and that's how the plant acquired its name.

In order to be introduced to the trade, however, the plant had to demonstrate more than beautiful color. O'Connor explains that with coleus, the goal of today's breeders is to create plants that are either late to flower or are flowerless, that resist downy mildew, grow in a wide range of



Redhead coleus shines in a summer garden.

light conditions, and elegantly sail through hot, humid weather.

### BEATING THE HEAT

I was unaware of this when I planted all six Redhead coleus plants in mostly sunny sites in my Princeton, New Jersey, garden. What followed was a horrid growing season in the mid-Atlantic, with record-breaking temperatures, drought, and air quality alerts. A variety of shrubs, trees, and perennials succumbed as a result.

Despite this, Redhead coleus thrived from May through October. The color of its large, narrowly serrated leaves was fab-

ulous—ranging from an alluring pink-tinged red at high noon to a dark, luscious, wine-red in late afternoon sun. All the plants remained free of disease and flowerless. They were not fertilized and were watered only during the worst of the heat spells. When the occasional torrential downpour did occur, the plants stood tall.

And they not only stood tall—no staking whatsoever—they grew tall. Though Ball's marketing information describes the plant topping out at 18 to 24 inches with a slightly broader spread, mine reached a magnificent 40 inches. When I asked O'Connor about this, she thought it may have been because my plants were sent in small six-pack cells and thus had not

been pinched back. Larger ones sold in containers would have been pinched to create a bushier effect, thus reducing upward growth.

Given that I've disclosed I got the plants for free, you might wonder whether I'm an unbiased observer. Well, if it helps, I'm not the only one singing its praises; Redhead coleus has received high marks in trials conducted at Franklin Park in Columbus, Ohio, and at Cornell University's Bluegrass Lane Research Center in Ithaca, New York. It's now widely available in garden centers, so you can try it and judge for yourself. 🌿

*Patricia Taylor is a freelance garden writer based in Princeton, New Jersey.*

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