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The Magazine of the American Horticultural Society

May / June 2017

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contents

Volume 96, Number 3 · May / June 2017

FEATURES



page 32

- 14 SUMMER PHLOX** BY GRAHAM RICE
This classic American native defies the dog days of summer with clouds of colorful, fragrant blooms.
- 20 BRIE ARTHUR: MAKING HORTICULTURE HIP** BY HELEN YOEST
Meet the recipient of the American Horticultural Society's inaugural Emerging Horticultural Professional Award, who is shaking things up in the gardening world.
- 26 NATIVE ORNAMENTAL GRASSES** BY C. COLSTON BURRELL
Hailing from the high plains to woodland edges, native American grasses provide evocative charm to any landscape.
- 32 BEGUILING CLIMBING ROSES** BY JEFF COX
Even small gardens can support a climbing rose. Here are some enchanting selections to consider.
- 38 SHADES OF SHADE** BY JENNY ROSE CAREY
Understanding shade in your garden is the first step to turning what some perceive as a problem into a glorious asset.

ON THE COVER: The flowers of *Phlox paniculata* 'Blue Paradise' vary in color from deep violet-blue to pinkish-purple, depending on the time of day and light conditions.

Photograph by Graham Rice, Gardenphotos.com

DEPARTMENTS

- 5 NOTES FROM RIVER FARM**
- 6 MEMBERS' FORUM**
- 8 NEWS FROM THE AHS**
Outstanding flower show displays receive AHS Environmental Award, Tour des Trees coming to River Farm, save the date for AHS Gala, former AHS Board of Directors Chair James Corfield dies.
- 12 AHS NEWS SPECIAL**
2017 National Children & Youth Garden Symposium in Pacific Northwest.
- 42 HOMEGROWN HARVEST**
Bush snap beans.
- 44 TRAVELER'S GUIDE TO GARDENS**
Hollister House Garden, Washington, Connecticut.
- 46 GARDEN SOLUTIONS**
Planting for pollinators.
- 48 GARDENER'S NOTEBOOK**
Geum trial results from Chicago Botanic Garden, database of global tree species created, oldest plant fossil found, spinach shows promise for human tissue regeneration, world's smallest begonia discovered, Frederik Meijer Gardens & Sculpture Park plans major expansion, Chanticleer Executive Director R. William Thomas honored with Scott Medal.
- 52 BOOK REVIEWS**
Pretty Tough Plants and *Big Dreams, Small Garden*.
Special Focus: Food gardening.
- 54 GREEN GARAGE**
Supports for climbers.
- 56 REGIONAL HAPPENINGS**
- 60 PRONUNCIATIONS AND HARDINESS AND HEAT ZONES**
- 62 PLANT IN THE SPOTLIGHT**
American yellowwood (*Cladrastis kentukea*).

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NOTES FROM RIVER FARM

HAVING JUST returned from Japan, where I helped lead one of the American Horticultural Society's Travel Study tours in April, I have been fortunate to experience spring on two different sides of the world. Japan's renowned cherry blossoms dazzled us everywhere we went, from the Imperial Palace garden in Tokyo to the "art" island Naoshima on the Inland Sea, renowned for its displays of contemporary art. Our extraordinary adventures included many unforgettable experiences related to plants, gardens, art, food, and people. Of course, spring here in the mid-Atlantic has been breathtaking in its own right, with a variety of plants putting on a wonderful show.

We were especially pleased to share River Farm's spring glory through a recent program aired by NBC. The gardens at our headquarters in Alexandria, Virginia, provided a fitting backdrop for a segment on the unspoken messages of flower arrangements with former White House floral designer Laura Dowling, who is a member of the AHS Board of Directors. You can watch a clip of the show on the NBC news website (www.nbcwashington.com/entertainment/the-scene/One-On-One-With-the-Former-White-House-Florist_Washington-DC-420548573.html).

Now I am looking forward to summer and, fortunately, I have a good excuse to visit the Pacific Northwest this year. I will be attending the 25th installment of the AHS's National Children & Youth Garden Symposium, which will be held in and around Portland, Oregon, and Vancouver, Washington, from July 12 to 15. For anyone interested in children's gardening and plant-based education, this event is not to be missed. You can find more details in an article on page 12, and registration information on the AHS website (www.ahsgardening.org).

In this issue of our member magazine, you'll also find plenty of ideas and inspiration for enlivening your own garden. If you're looking for something to fill vertical spaces, consider the climbing roses Jeff Cox recommends for their long-lasting floral magnificence. Those with a penchant for native species will appreciate Graham Rice's fresh look at an old garden standby, *Phlox paniculata*. He offers regionally based advice for selecting top-performing cultivars of this summer-blooming native wildflower. And Cole Burrell will familiarize you with the broad palette of native ornamental grasses that add unbeatable texture, color, and movement to any landscape.

Before you get planting, check out the excerpt from Jenny Rose Carey's new book, *Glorious Shade*. It discusses the various types of shade you may encounter in your garden and how degrees of shade affect design decisions and plant choices. Last but not least, Helen Yoest profiles horticulturist Brienne Arthur, a 2017 AHS award winner with an infectious passion for "foodscaping," the practice of growing edibles anywhere in the landscape.

Enjoy your gardens and your travels this summer.

Holly H. Shimizu
Interim Executive Director



Holly Shimizu at Naoshima in April

The American GARDENER

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MEMBERS' FORUM

SPICY ADVICE FOR REPELLING VOLES

I have some advice for Lu Anne Copeland from Chesapeake, Virginia, who had a problem with voles eating her sweet potatoes. I was having the same issue until I started putting cayenne pepper powder in the hole with the sweet potato slips. I purchase the cayenne in bulk, and it is very inexpensive.

*Margaret Kearns
Ruther Glen, VA*

HOLDING BEDS QUESTION

I enjoyed the article about holding beds (November/December 2016) and wanted to share my experience. I have a 10-acre woodlot-cum-prairie-remnant around my house that I have gradually been restoring by eliminating invasives and planting natives. As part of this process, I created a small holding bed close to my house for "incubating" seedling trees until they can be moved to the woodlot. Although this has been a reasonable success, some of the seedlings

develop such an extensive root system that it takes a great effort to dig them out. This has made it difficult to transplant them successfully. If anyone has any advice on this, please let me know.

*William Armstrong
Carlinville, IL*

STATUESQUE PERENNIALS CAVEAT

I have grown many of the plants mentioned in the article on statuesque perennials (January/February 2017), and while all are worthwhile, they require constant diligence to prevent them from becoming thuggish.

Rosinweeds (*Silphium* spp.) and ironweeds (*Vernonia* spp.) provide valuable seeds for overwintering birds, but can reseed into areas that you may consider undesirable. *Patrinia*, mentioned in the chart, grows well for me even though it is not rated as hardy in my USDA Zone 4 garden. It also can be a prolific self-sower.

*Patricia Macomber
Moors, NY*

CORRECTIONS/CLARIFICATIONS

The image of butterfly weed on page 50 of the March/April 2017 issue was provided courtesy of Rotary Gardens, Janesville, Wisconsin.

In the "AHS Members Making a Difference" column in the March/April issue, Scott Kunst received his master's degree in historic preservation from Eastern Michigan State University.

In the article on daffodil expert Jason Delaney in the March/April issue, Delaney's job title at Bellefontaine Cemetery and Arboretum in St. Louis, Missouri, was rendered incorrectly. Delaney is a horticulturist at Bellefontaine.

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

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INTERNSHIP PROGRAM The AHS offers internships in communications, horticulture, and membership. For information, send an e-mail to internships@ahsgardening.org. Information and application forms can also be found in the Gardening Programs area of www.ahsgardening.org.

NATIONAL CHILDREN & YOUTH GARDEN SYMPOSIUM For information about the Society's annual National Children & Youth Garden Symposium, e-mail education@ahsgardening.org, or visit www.ahsgardening.org/ncygs.

RECIPROCAL ADMISSIONS PROGRAM The AHS Reciprocal Admissions Program offers members free admission and other discounts to 300 botanical gardens and other horticultural destinations throughout North America. A list of participating gardens can be found on www.ahsgardening.org/rap. For more information, call (703) 768-5700 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. For information about events, rentals, and directions, visit the About River Farm section of www.ahsgardening.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 (703) 768-5700 ext. 127, e-mail development@ahsgardening.org, or visit the Gardening Programs section of www.ahsgardening.org.

WEBSITE: www.ahsgardening.org The AHS website is a valuable source of information about the Society's programs and activities. Users must set up a username and password to access the member's-only sections.

News from the AHS

May / June 2017

PROGRAMS • EVENTS • ANNOUNCEMENTS

RECENT RECIPIENTS OF AHS FLOWER SHOW AWARDS

EACH YEAR the American Horticultural Society (AHS) sponsors a special award for exhibits at flower and garden shows held around the United States. The AHS



Environmental Award is given to exhibits that best demonstrate, through skillful design and appropriate plant selections, the bond between horticulture and the environment in a way that inspires viewers to beautify their own gardens and communities.

At the Northwest Flower & Garden Show, held in February in Seattle, Washington, the AHS Environmental Award went to "Honey We Shrank the Farm: Urban Farming in



2017 AHS Environmental Award winners were, top to bottom: "Honey, We Shrank the Farm;" "International Landscaping & Design;" and "Reconnection."



Style." The display was created by **Farmer Frog**, a nonprofit that supports more than a dozen school gardens in Washington. It included a hoop house, an aquaponic system, espaliered fruit trees, pollinator plants, and a chicken coop.

The exhibit "International Landscaping & Design" received the AHS Environmental Award at the Maryland Home & Garden Show, held in Timonium in March. The exhibit, created by **Ashley Kidner**, featured a variety of unusual plants

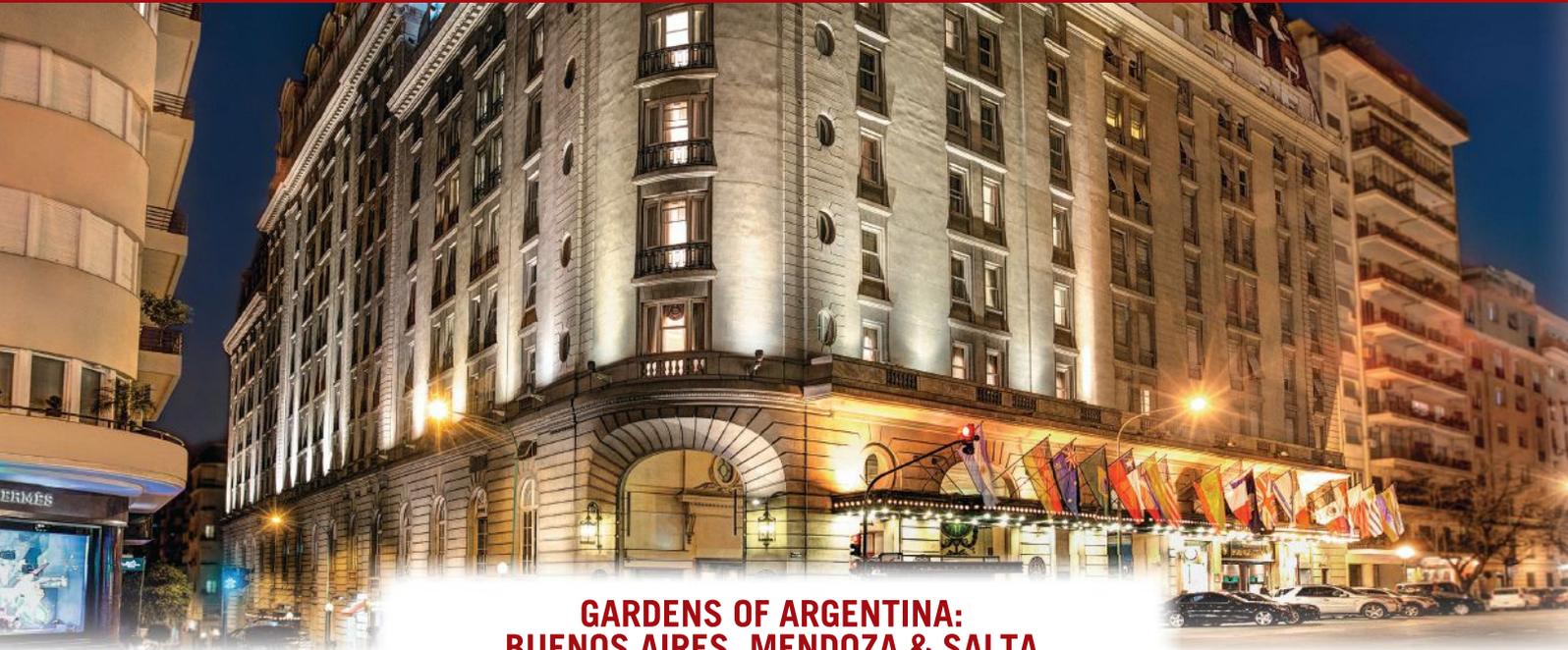
with an emphasis on native species. The sound of water cascading down the stone blocks of a cylindrical raised stone water feature contributed to the serenity of the display.

At the Philadelphia Flower Show in Pennsylvania in March, a garden titled "Reconnection" designed by **Studio Nico Wissing** received the AHS Environmental Award. The exhibit focused on how nature and sustainable materials can offer function and beauty.

More information about the AHS Environmental Award can be found at www.ahsgardening.org/awards.



AMERICAN HORTICULTURAL SOCIETY TRAVEL STUDY PROGRAM UPCOMING TOUR SPOTLIGHT



GARDENS OF ARGENTINA: BUENOS AIRES, MENDOZA & SALTA October 30–November 8, 2017

IGUAZU FALLS POST-TOUR November 8–10, 2017

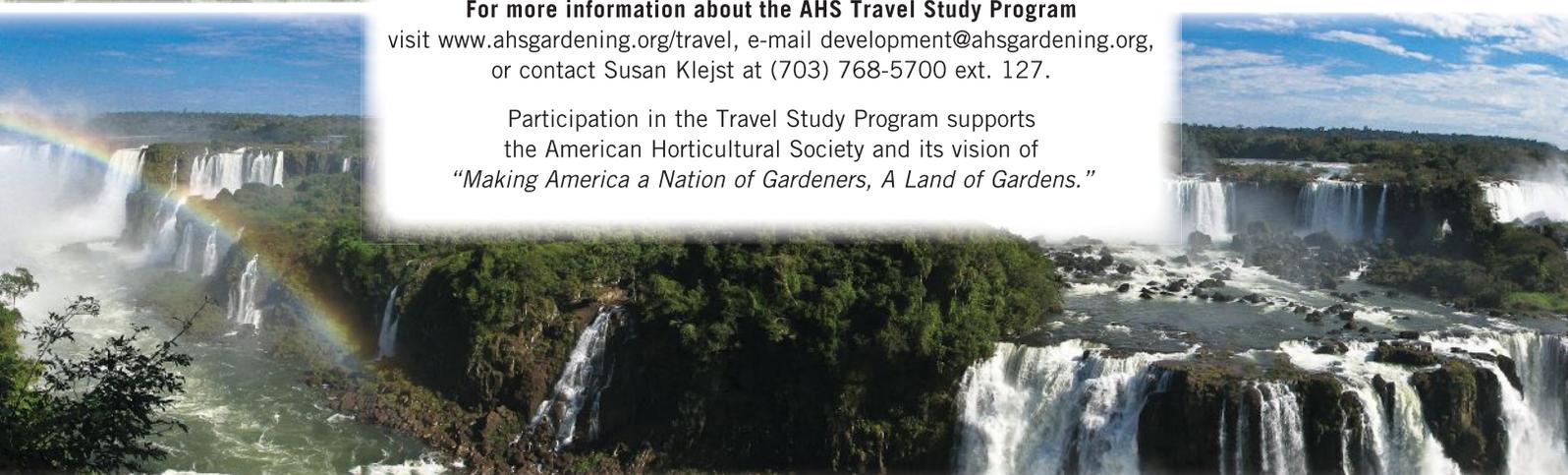
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- Relish the culinary delights of a flourishing “foodie” culture, enjoy top-rated accommodations, and tempt yourself with world-class window shopping and intimate boutiques filled with local handicrafts.
- Enjoy the company of a small group of like-minded travelers.

For more information about the AHS Travel Study Program

visit www.ahsgardening.org/travel, e-mail development@ahsgardening.org, or contact Susan Klejst at (703) 768-5700 ext. 127.

Participation in the Travel Study Program supports the American Horticultural Society and its vision of *“Making America a Nation of Gardeners, A Land of Gardens.”*



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 28 and April 30, 2017.

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If you would like to support the American Horticultural Society as part of your estate planning, as a tribute to a loved one, or as part of your annual charitable giving plan, please call Susan Klejst, Director of Development & Engagement, at (703) 768-5700 ext. 127.

TREE-LOVING CYCLISTS TO CONVERGE ON RIVER FARM

THE AMERICAN HORTICULTURAL SOCIETY'S River Farm headquarters in Alexandria, Virginia, will welcome bicyclists with a shared passion for trees on August 5 as part of the 2017 **STIHL Tour des Trees**. This annual event benefits the TREE Fund, a 501(c)3 charity devoted to sustaining the world's urban trees through research and education.

The 2017 Tour runs July 30 to August 5, with riders cycling 500+ miles through Maryland, Virginia, and Washington, D.C., on a mix of urban trails and bucolic country roads. 2017 is the 25th anniversary of this event, which visits dozens of communities to plant trees, educate children, engage with local tree stewards, and promote the mission of the TREE Fund. Since 2002, the Tour has enabled the TREE Fund to fund research and education grants totaling over \$3 million. Visit www.stihltourdestrees.org for more details.

2017 AHS GALA IN SEPTEMBER

BE SURE to save the date for the AHS's 2017 Gala, taking place on Saturday, September 23 at River Farm. The theme for this year's event is "America's Garden Legacy: From Sea to Shining Sea," and special guests will be the **Honorable and Mrs. Don-**



AMERICAN
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SOCIETY

AHS NATIONAL EVENTS CALENDAR

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

JUNE 8. **Great American Gardeners and AHS Book Awards**

Ceremony. River Farm, Alexandria, VA.

JUNE 26–30. **AHS President's Council Trip to Connecticut**

Gardens: Litchfield Hills and Points East.

JULY 12–15. **National Children & Youth Garden Symposium.**

Portland, OR.

SEPT. 5–15. **Gardens of Genoa, the Italian Riviera & Florence.**

AHS Travel Study Program.

SEPT. 23. **AHS Annual Gala.** River Farm, Alexandria, VA.

OCT. 5–7. **America in Bloom Symposium and Awards Program.**

Holliston, MA. (AHS partner event.)

OCT. 30–NOV. 8. **Gardens of Argentina: Buenos Aires, Mendoza &**

Salta (with optional post-tour to Iguaza Falls, Nov. 8–10).

AHS Travel Study Program.

OCT. 12–26. **9th Annual AHS Online Auction.** National.

DEC. 1–22. **Indoor Holiday Display.** River Farm, Alexandria, VA.

DEC. 9. **Holiday Open House.** River Farm, Alexandria, VA.

2018

JAN. 6–28. **Gardens, Wine & Wilderness: A Tour of New Zealand.**

AHS Travel Study Program.

ald S. Beyer, Jr. Congressman Beyer represents Virginia's 8th District in the U.S. House of Representatives.

The gala is an opportunity to enjoy an elegant evening in River Farm's gardens with fine dining and a silent auction benefiting the AHS's national outreach programs and the stewardship of River Farm. For information about sponsorship opportunities or to make reservations, contact **Susan Klejst** at (703) 768-5700, ext. 127 or visit www.ahsgardening.org/gala.

IN MEMORIAM: JIM CORFIELD

JAMES LYLE CORFIELD, a longtime horticulture industry executive and former chair of the AHS Board of Directors, died at



Jim Corfield

the age of 72 on March 14. Over the course of his career, Corfield worked as an executive with Ball Seed Company, Vaughn Seed Company, and S&G Seed Company, among others. He was also the first director of the Ornamental Plant Germplasm Center at the Ohio State University in Columbus. Corfield served on the AHS Board of Directors for 10 years and was Chair from 2000 to 2001. In addition to gardening, Corfield relished travel, counting all seven continents and 50 states among the adventures he shared with his family, especially his wife, Judy.

News written by AHS staff.

THE AMERICAN HORTICULTURAL SOCIETY'S 25TH ANNUAL

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& YOUTH**
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“ The National Children and Youth Garden Symposium reignited my drive and creativity for my job. I do not feel alone in this push to integrate a garden curriculum into a child’s everyday life. Our work is incredibly important and this symposium reminded me of that.

– JANN KNAPPAGE,
First-time NCYGS attendee

- Explore topics ranging from curriculum to program management to garden design and maintenance during four dynamic days of educational sessions, field trips, and expert keynote presentations.
- Experience the vibrant gardening and environmental culture of the green Pacific Northwest.
- Share ideas, success stories, and inspiration with like-minded colleagues from across the nation.

FOR MORE INFORMATION, VISIT:

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Call: (703) 768-5700

Follow us on Twitter: @AHS_NCYGS (#ncygs17)



AHS NEWS SPECIAL:

National Children & Youth Garden Symposium in Pacific Northwest

by Julia Polentes

THROUGH ITS annual National Children & Youth Garden Symposium (NCYGS), the American Horticultural Society has helped thousands of garden educators, designers, program leaders, and others from around the country connect kids with plants. Every year since its inception in 1993, the symposium travels to a different location, allowing participants to experience innovative gardens and programs across the country. This year, it will be held July 12 to



Above: Inspiring educators and other adults to connect kids to rewarding gardening experiences is the goal of the AHS's National Children & Youth Garden Symposium. Left: Whimsical clay-pot people welcome young visitors to the Children's Garden at Oregon Garden.

15 in the Greater Portland area of Oregon and nearby Vancouver, Washington.

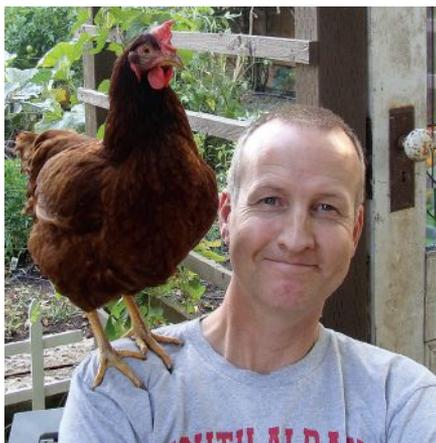
"NCYGS is all about providing participants with the tools, insights, and inspiration they need to effectively reach their young audiences," says **Amy Bolton**, chair of the AHS Board of Directors. "It's our mission in action: engaging people of all ages and backgrounds in gardening as a way to enrich their own lives as well as take care of the earth."

PACIFIC NORTHWEST CONNECTION

The symposium's local host is the Oregon Department of Education (ODE). **Rick Sherman**, the farm-to-school and school garden coordinator for ODE, has attended the past four symposia. "I have found them to be very valuable for continuing to get the word out about teaching kids where healthy food comes from," he says, "so I jumped at the chance to host a symposium here."

Through his role with ODE, Sherman facilitates regional school garden hub meet-

ings and co-leads statewide summits. These events and resulting networks have allowed school gardening advocates to learn from and support each other, ensuring a higher degree of success. At this year's NCYGS, Sherman will speak about his experiences with creating these networks, which could



Rick Sherman (with a feathered friend)

serve as a model for other areas of the country. He also will lead a pre-symposium tour of three exemplary school gardens in the Portland area (see sidebar on facing page).

MANY VOICES, ONE GOAL

Other presentations—more than 50 of them—will address topics such as creative garden design, generating community support, lesson planning, inclusivity opportunities, garden-to-cafeteria programs, navigation of regulations and funding, ecoliteracy, horticultural workforce development, philosophy of gardening education, and much more.

The entire group will hear a keynote presentation by **Philip Lee** and **Rick Swann**. Lee is the founder of Readers to Eaters, a publishing company that promotes food literacy, fosters inclusion, and celebrates diversity in food culture. Swann is a retired elementary school teacher, librarian, and the author of *Our*

School Garden!, which was awarded the Growing Good Kids Book Award in 2013.



Philip Lee

Brian “Fox” Ellis, a storyteller, educator, author, and environmental activist. He will perform “The Comic Misadventures of Lewis and Clark,” which blends song, history,



Brian “Fox” Ellis

Native American folklore, botany, and humor into an entertaining and enlightening experience for both adults and children. In addition to these scheduled events and activities, there will be ample time for networking with cohorts as well as independent exploration of the Portland and Vancouver area. NCYGS 2017 promises to be a valuable and exhilarating experience for everyone!

Julia Polentes is an editorial intern for The American Gardener.

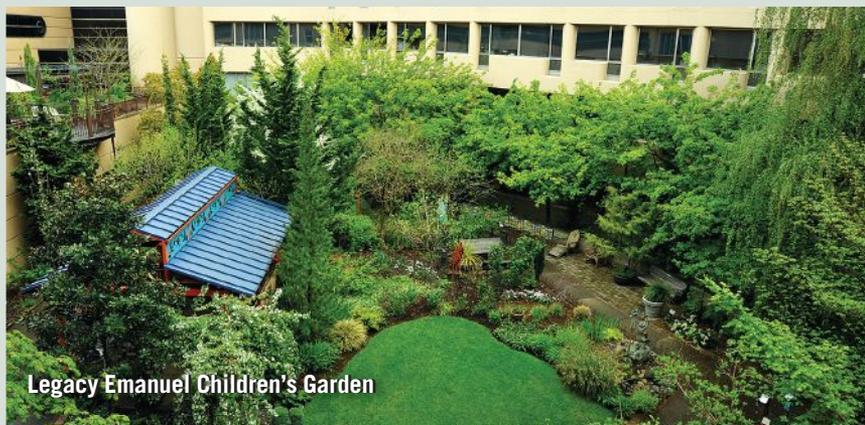


For more details about the 2017 symposium and to register, visit the AHS website at www.ahsgardening.org/ncygs. Plus get updates by following @AHS_ncygs on Twitter.

OPTIONAL EXCURSIONS FOR FURTHER EXPLORATION



WEDNESDAY, JULY 12. Join Rick Sherman, school garden coordinator at the Oregon Department of Education, for a morning tour of three **school gardens** in the Portland area, including an urban rooftop garden. Each school showcases innovative programs and partnerships. Departing concurrently is a day trip to the **Oregon Garden**, an 80-acre botanical garden in the Willamette Valley. Participants will take part in a behind-the-scenes tour of its Children’s Garden and the Silverton Market Garden, led by Horticultural Manager Ty Boland. Boland will discuss the design of gardens for young visitors and sustainability practices. A picnic lunch will follow, along with time to explore the garden independently.

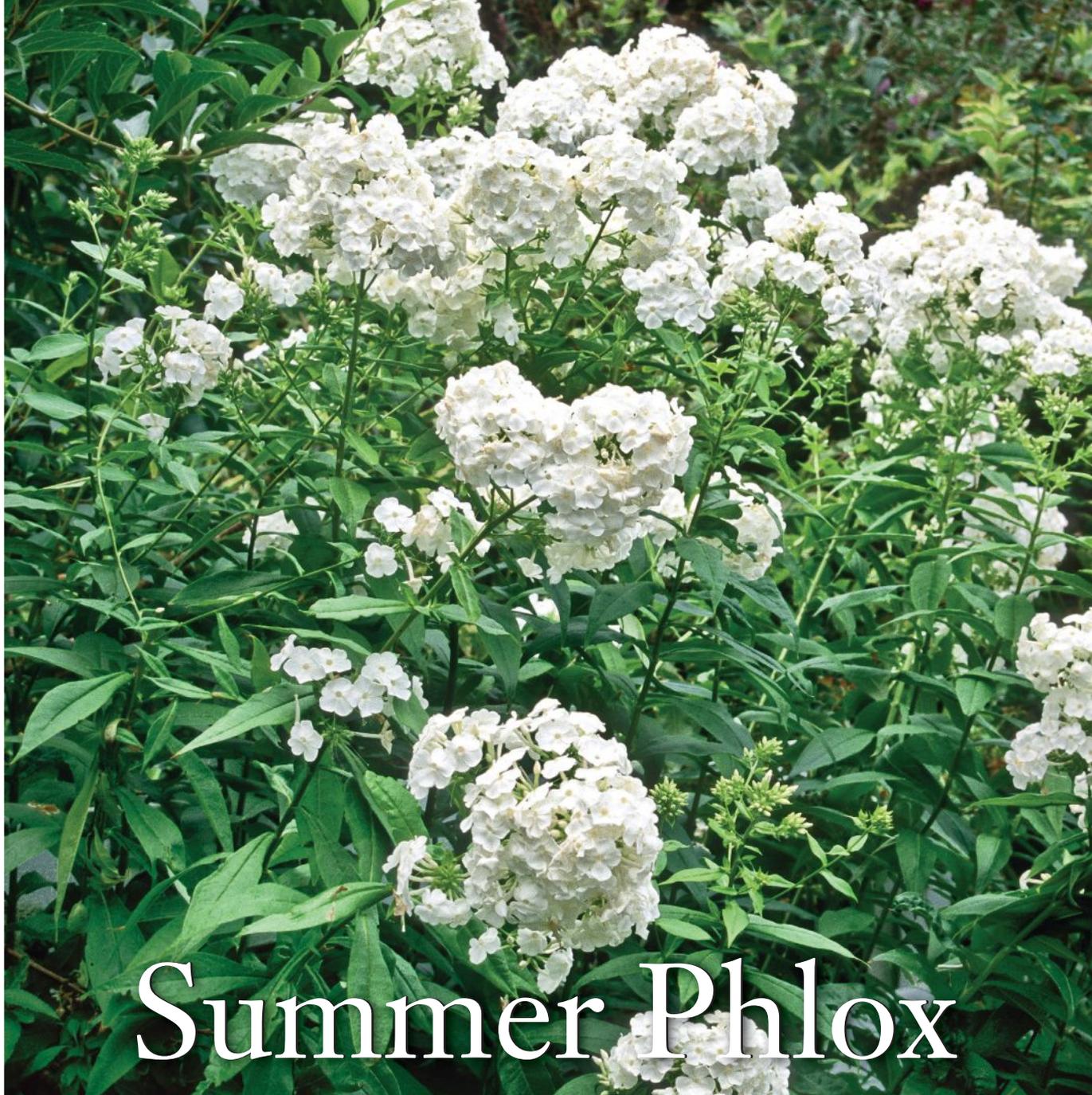


FRIDAY, JULY 14. In the morning, one of the session options is a trip to the **Legacy Emanuel Children’s Garden and the Family Birth Center Garden** in Portland. They are part of Legacy Health’s collection of healing gardens at its campuses across the region. Participants will get a guided tour and insights into Legacy’s horticultural therapy program.

SATURDAY, JULY 15. For an unforgettable post-symposium experience, **Our Table Cooperative** will provide an overview of its educational programs and a tour of its 50-acre farm, located about 15 miles south of Portland. The picturesque pastures and gardens will provide a serene backdrop for a farm-to-table dinner in the evening.

—J.P.





Summer Phlox

This classic American wildflower defies the dog days of summer with its clouds of colorful, fragrant flower heads that attract butterflies and other pollinators.

BY GRAHAM RICE

SUMMER OR garden phlox (*Phlox paniculata*) is a cherished American wildflower as well as a popular ornamental plant around the world. Its winning characteristics include the fact that its colorful and fragrant flowers appear from mid- to late summer, making it one of the few perennials that provide floral interest during this challenging period. Those flower heads, composed of numerous florets, are the largest and most floriferous of any in the genus. Plus they attract a bevy of pollinators, including butterflies, moths, and hummingbirds.

In the wild, summer phlox occurs across a wide swath of the eastern United States and the Midwest, from Maine and Minnesota, south to Georgia and Louisiana, with outlying populations in Washington and Utah. It is reliably hardy in USDA Zones 4 to 8 and will grow in AHS Heat Zones 8 to 1. It thrives in rich alluvial soils, especially in roadside ditches, on river banks, and other bright, open areas near waterways. Its preference for damp habitats has important implications for gardeners, who should take that as a clear hint to keep their phlox well hydrated at all times.

Among the most floriferous and disease-resistant summer phlox cultivars are white-flowered 'David', this page, and pink-flowered 'Jeana', opposite.

RIGHT CULTIVAR, RIGHT PLACE

Summer phlox has many admirable qualities, but it does come with one caveat: its susceptibility to powdery mildew. This fungal disease appears as white dusty blotches on the upper surfaces of the leaves. Severe infections can cause the foliage to drop off, marring the display and weakening the plant. The best defenses against powdery mildew are selecting cultivars that have proved resistant in your area and ensuring good cultural conditions.

In general, rates of infection are far higher in shady conditions than in full sun and exacerbated by high humidity. As for resistant cultivars, seek out those that have a proven track record in your region because mildew resistance varies considerably from place to place, and from season to season.

For example, 'Miss Universe' showed good resistance in a Chicago Botanic Garden (CBG) trial in Illinois, but was rated "very susceptible" in a trial done by researchers at the University of Arkansas. 'David' is widely regarded as highly resistant, yet I have encountered it mildewed top to bottom in New Jersey.

In addition to mildew resistance, numerous cultivars offer an expanded palette of flower colors from the species' pink and purple hues to white, yellow, orange, red, blue, and bicolors. Breeding efforts also have focused on earlier flowering, larger flower heads, and compact habits.

The aforementioned 'David', for instance, is a selection with unusually large white flower heads atop four-foot stems. Originally discovered in a garden in Pennsylvania, it has proven mildew resistant across a wide range of climates. It is "probably the most consistent bloomer year after year here in the mildewed heart of the Blue Ridge Mountains," says Richard Bir, who trialed phlox from 1999 to 2001 while he was an Extension horticulture specialist for North Carolina State University in Raleigh.

Plant broker Bob Lilly, who co-authored *Perennials: The Gardener's Reference* (Timber Press, 2007), says 'David' is the best cultivar for the Pacific Northwest "because it is mildew resistant, is medium height so less likely to flop during our rains, and for the strong fragrance." And Deborah Whigham, who runs Digging Dog Nursery in Albion, California, agrees that it "exhibits top notch powdery mildew resistance" for her while blooming steadily from July to September.



A chance seedling of 'David', 'Shortwood' features sturdy stems that top out around four feet tall and pink flowers that bloom for up to eight weeks from mid- to late summer.

At the Mt. Cuba Center in Hockessin, Delaware, Research Horticulturist George Coombs is currently wrapping up a trial of more than 80 summer phlox cultivars. 'David' is doing well, he says, but so far, 'Jeana'

is his top pick. 'Jeana' is named for Jeana Prewitt of Nashville, Tennessee, who spotted the four- to five-foot-tall selection with lavender-pink florets growing mildew-free among mildew-covered wild plants. "It's a top performer in the garden, with both a great floral display and excellent mildew resistance," Coombs says. The individual florets are smaller than those of most other selections, adds Coombs, but "they attract significantly more butterflies than any other phlox in our trial."

Another standout cultivar in this trial is 'Blue Paradise', not because it has been particularly disease resistant but because its flower coloration changes noticeably over the course of a day. "In the morning and evening hours, the flowers are a very dark violet color," explains Coombs, "while they appear more pink during mid-day." In low light conditions, the flower color is "the closest to true deep blue that I know of," agrees Rachel Kane of Perennial Pleasures heirloom plant nursery in East Hardwick, Vermont. She cultivates it as part of her collection of more than 140 summer phlox cultivars, but if she could choose only one for her garden, it would be 'Bright Eyes'. A three-foot-tall cultivar introduced in the 1950s, its shell-pink

Sources

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- Perennial Pleasures**, East Hardwick, VT. www.perennialpleasures.net.
- Sooner Plant Farm**, Stillwater, OK. www.soonerplantfarm.com.

Resources

- Phlox: A Natural History and Gardener's Guide** by James H. Locklear. Timber Press, Portland, OR, 2011.
- A Comparative Study of *Phlox paniculata* Cultivars** by Richard G. Hawke. Plant Evaluation Notes Issue 35, Chicago Botanic Garden, Glencoe, IL. www.chicagobotanic.org.



The purplish-blue flowers of 'Blue Paradise' add cool tones to the summer garden.

HORTICULTURAL HISTORY OF SUMMER PHLOX

Like a number of American natives, *Phlox paniculata* found its way to Europe via botanist John Bartram in the mid-1700s. Bartram apparently wasn't too keen on this one, commenting, "Our swamps and low grounds are full of them. I had so contemptible an opinion of it, as not to...afford it room in my garden." Nonetheless, prominent botanic gardens and estate gardens across Europe embraced it. Not long after, nurseries began producing new varieties.

The first garden variety was introduced in 1824 by George Wheeler, an English nurseryman. From about this time until the 1860s, breeding efforts took off, particularly in France and Belgium. In 1844, Boston nurseryman Charles Mason Hovey brought back what he described as "thirty or forty of the finest new varieties" from France, hoping to entice American gardeners.

Hovey and other stateside breeders continued to churn out new cultivars until "a scanning of American nursery catalogs in 1917 by C. L. Thayer revealed 584 named selections of *Phlox paniculata* in the trade," notes James H. Locklear in his invaluable monograph on the genus (see "Resources," page 16). Over the next century, many of these disappeared but new cultivars continued to proliferate both in America and abroad, so there are still well over 500 cultivars in existence today.

—G.R.



The heirloom cultivar 'Bright Eyes' distinguishes itself with pale pink florets that each have a darker pink eye. It makes an especially pleasing combination with blue-flowered plants such as the great blue lobelia (*Lobelia siphilitica*) in the foreground.

florets have a striking deeper pink eye. "The overall vigor paired with excellent resistance to powdery mildew, plus the generosity of its late-summer bloom, are what recommend it so highly," she notes.

In a nine-year trial concluded in 2009 at the CBG in Illinois, 'Shortwood' was the only one of 64 summer phlox cultivars to receive the "Excellent" rating. In the performance report available on CBG's website (see "Resources," page 16), Plant Evaluation Manager Richard Hawke gave this four-foot-tall, rosy-pink-flowered selection high marks "for its exceptional overall performance and superior resistance to powdery mildew and spider mites."

MIXING IN OTHER PHLOX SPECIES

The CBG trial also included eight *Phlox xarensisii* cultivars that resulted from crossing summer phlox with woodland phlox (*P. divaricata*). They have the showier flower heads of the former parent and the shorter stature of the latter. Out of this group, bubblegum-pink-flowered 'Miss Karen', lilac-flowered 'Miss Margie', and cherry red-flowered 'Miss Mary' received the best ratings for flower production and disease-resistance.

Interspecific hybrids with *P. paniculata* appear to hold a lot of promise. For instance, Walters Gardens, a wholesale perennial producer in Michigan, devel-

oped the Opening Act series a few years ago, comprising a white-flowered and a lavender-pink form. These plants feature an earlier bloom time in summer, stay under two feet tall, and so far have shown excellent disease resistance.

Walters Gardens also released the Fashionably Early series in 2016. The four varieties in it top out between two-and-a-half and three feet in height, bloom earlier than *P. paniculata*, and exhibit superior mildew resistance. Both series will rebloom to a lesser extent in fall.

CULTIVATION GUIDELINES

Plant summer phlox in full sun to part



By hybridizing summer phlox with other phlox species, breeders have created cultivars such as ‘Miss Mary’, left, that have the floral showiness of summer phlox but stay shorter so don’t need staking. ‘Opening Act White’ and ‘Fashionably Early Flamingo’, top right and bottom right, respectively, are floriferous, shorter interspecific hybrids that also begin blooming earlier than summer phlox typically does.

shade in rich, well-drained soil that never dries out. Drought stress—evident by wilting—weakens plants and makes them more vulnerable to mildew infections, so avoid it at all costs. Mulching or growing groundcovers around the plant helps slow water loss from the soil.

Summer phlox can also fall prey to spider mites where hot, dry conditions prevail, but these rarely kill the plant. Deer and rabbits can be a problem, too, so take protective measures such as fencing or repellents if these creatures frequent your garden.

Taller cultivars may flop over, so use steel grow-through frames or build your own by placing a series of canes or stakes

around the plants and crisscrossing twine in between. Cutting stems back by half in early summer will reduce the need for staking and produce more, though smaller, flower heads; blooming will be slightly delayed. Deadhead to prolong flowering.

Summer phlox are easy to start from seed, says Kane from Perennial Pleasures, and “often self-sow into the garden.” However, she cautions that volunteer seedlings generally won’t resemble the parent plant so are best weeded out to avoid overcrowding. Of course, several chance seedlings have turned out to have mildew resistance or novel flower colors, so feel free to experiment if you have space.

Every few years, clumps of summer phlox should be dug up in spring or fall and divided to maintain their vigor.

WELCOME LATE-SUMMER SHOW

Give this native what it needs and it will reward you well. Summer phlox puts on a colorful, fragrant show at a time when most other summer-flowering perennials have finished blooming. And with new cultivars continuing to stretch the possibilities of this plant, who can try just one? 

Graham Rice is the author of many gardening books and The Transatlantic Gardener blog (www.transatlanticgardener.com).

Brie Arthur

BY HELEN YOEST

making horticulture hip



Meet the recipient of the American Horticultural Society's inaugural Emerging Horticultural Professional Award, who is shaking things up in the gardening world.

Brie Arthur relaxes in her North Carolina garden.

ELIZABETH GALECKE



A sought-after lecturer, Arthur has become a regular at many annual gardening events. Here she is shown with fellow presenters at Monticello's 2015 Heritage Harvest Festival in Virginia. From left to right are Holly Shimizu, currently interim executive director of the American Horticultural Society; Aaron Keefer, culinary gardener for The French Laundry restaurant; Rosalind Creasy, edible landscaping pioneer and author; Joe Lamp'I, host of "Growing a Greener World"; Brie Arthur; Ira Wallace of Southern Exposure Seed Exchange; and Peggy Corbett, curator of plants at Monticello.

IT'S IMPOSSIBLE to be around Brie Arthur and remain impervious to her passion for horticulture. Her combination of expertise and enthusiasm can get just about anyone excited about plants, whether it's growing them, designing with them, or using them in the kitchen. And her charming lilt and charismatic smile certainly don't hurt, either, especially in front of a camera, where Arthur is becoming increasingly comfortable as the foodscaping and landscape design correspondent for the PBS show "Growing a Greener World."

The vivacious 38-year-old's career arc has taken her from a self-described teenage hippie to a gardening celebrity in relatively short order, and it's clear she's just getting started. Her first book, *The Foodscape Revolution*, was published this spring and she has more than 70 talks lined up across the country in 2017 to help promote it. She is also the first recipient of the American Horticultural Society's Emerging Horticultural Professional Award, debuting this year to recognize people in the early stages of their career whose significant achievements and/or leadership efforts have advanced the field of horticulture.

"Brie has quickly moved from being a celebrated local professional through her work with several area nurseries to becoming a nationally known figure," says Mark Weathington, director of the JC Raulston Arboretum at North Carolina State University in Raleigh. "Her future trajectory and ultimate impact have the potential to be enormous for the field of horticulture and expansion of gardening to new and diverse audiences."

EARLY INFLUENCES

Arthur fell in love with plants at an early age. "I was enchanted with my grandparents' garden in the suburbs of Pittsburgh," she recalls. "They had the tidiest landscape in the neighborhood, and they grew all their own vegetables, like most people did two generations ago." Their garden was where Arthur discovered her first plant love—kohlrabi—and even now as an adult, "every kohlrabi encounter brings back fond memories of my grandparents."

Growing up in southeastern Michigan, Arthur discovered an affinity for the plants around her, especially those in cultivated spaces. "Horticulture was intuitive

for me," says Arthur, "and I've always enjoyed the instant gratification of a hard day's work." She got plenty of that while helping care for her parents' three-acre yard. "My chores in the summer included mowing the yard and hedging 20-plus-year-old yews into rectangles and orbs," she remembers.

As a teenager, Arthur joined the local 4-H Club and began to experiment with perennials to enter them in exhibitions at the county fair. This led her to the realization that horticulture could be an option for a fulfilling career. Following high school, she enrolled in the landscape horticulture and design program at Purdue University in West Lafayette, Indiana.



Arthur got an early start in gardening while helping her parents maintain their large property in southeastern Michigan. As a teenager, she regularly used a rototiller, but now says she doesn't recommend this practice because it's harmful to the soil.



Arthur uses empty wine bottles as edging for many of her garden beds, above, because they create a microclimate in the cool season, giving tender crops like lettuces and other greens a little extra warmth. Right: Arthur gets students excited about gardening at the Dorothy L. Bullock Elementary School in Glassboro, New Jersey.

While still in college, her first job was with Jeff Mast, then manager of Heartland Growers in Westfield, Indiana. “Jeff took a chance on a crazy 20-year-old hippie intern for the summer,” says Arthur. That internship solidified Arthur’s decision to make horticulture her life’s calling.

NORTH CAROLINA CONNECTIONS

Arthur’s next internship brought her to Montrose, a historic home and garden in Hillsborough, North Carolina, lovingly created by horticulturist Nancy Goodwin. After finishing up her bachelor’s degree at Purdue, Arthur took a full-time position at Montrose in 2002 and initially settled in Chapel Hill. “Nancy taught me the art form of gardening and encouraged me to hone my propagation skills,” she says.

Following this, she landed a job in nearby Raleigh as the production manager at Plant



TOP: ELIZABETH GALECKE. BOTTOM: COURTESY OF SONYA HARRIS

BRIE ARTHUR'S TIPS FOR INTEGRATING EDIBLES

Brie Arthur is typical of many plant geeks in that she's hard-pressed to name her favorite plants. "There are so many plants worth growing that my favorite is the one I am admiring at the moment!" she says. "I encourage everyone to stop concentrating on one category, such as ornamental, native, or even edible, and appreciate that all plants serve a purpose." Here are a few suggestions she has for mixing things up in your garden:

■ Pair sun-loving flowering shrubs such as panicle hydrangea (*Hydrangea paniculata*) and tomatoes so that the shrubs can provide support for the tomato stems.

■ In lieu of traditional ornamental grasses, try edible ones such as rice (*Oryza sativa*) and wheat (*Triticum* spp.)—shown at right with larkspur in Arthur's garden—which are beautiful in their own right. Threshing these grains can be a fun experience for kids as well as grown-ups.



■ Bed edges are often underutilized garden space so use them to fit in low-growing edibles such as garlic, chives, and peanuts. —H.Y.

"I am not sure where the notion came from that flowers need to be grown in a separate space from fruits and vegetables, but it is my life's mission to encourage everyone to think beyond the boxed bed and incorporate edibles in everyday landscapes." —Brie Arthur

Delights Nursery, a retail and mail-order nursery that is highly regarded by die-hard plantaholics. Here, she worked with proprietor Tony Avent, who "introduced me to a cherished network of horticulture professionals and showed me an endless world of plants," says Arthur.

Her final stop within the horticultural Mecca of the Triangle area of North Carolina was as a propagator for Camellia Forest Nursery in Chapel Hill from 2009 to 2014. She fondly recalls the nursery's founder, Kai Mei Parks, who died in 2015, describing her as "my work soul-mate."

It was during this period of her career that Arthur met her husband, David. The two, who married in 2012, now share duties in their one-acre garden in Fuquay-Varina, a suburban area south of Raleigh. The Arthurs host a popular annual heirloom to-

mato-tasting event in this garden each August, much to the delight of their neighbors. Two neighborhood children, Abigail and Aidan, now seven and 10, respectively, have become regular garden visitors and helpers. "Engaging the neighborhood children has been the best motivation to experiment in the garden," says Arthur. "They are always ready to get dirty."

Arthur's experience with Abigail and Aidan inspired her to seek out other ways to get children involved in gardening. In 2015, she joined Ahmed Hassan, former host of the HGTV series "Yard Crashers," in helping to develop a school garden in Glassboro, New Jersey. And although the school is some 400 miles from her home, she has remained involved with the programs for the first- to third-grade students. "Over the past year, Ms. Brie has become

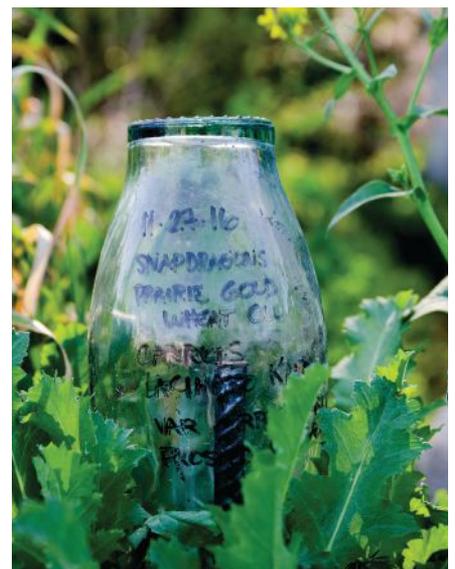
a beloved teacher," says Sonya Harris, a special education teacher at the Dorothy L. Bullock Elementary School. "Throughout the school year, she sends the children seedlings, seeds, e-mails, photos, and videos congratulating and encouraging them on their garden work." Arthur has now agreed to help with expansion of the school garden program at four other regional schools.

PATH TO FOODSCAPING

Arthur began growing edibles as a way to supplement her limited grocery budget after purchasing her first home. But discovering how easy it was to grow vegetables, herbs, and fruits in a suburban landscape got her thinking about how the concept might work on a larger scale.

"I am not sure where the notion came from that flowers need to be grown in a separate space from fruits and vegetables, but it is my life's mission to encourage everyone to think beyond the boxed bed and incorporate edibles in everyday landscapes," she says.

Arthur says she focused on foodscaping because it helps address important issues such as food production, sustainable land management strategies, and biological diversity. "Making the most of our cultivated square footage by incorporating edibles just makes sense," she says. "Eating from your home landscape inspires a conscious decision to garden organically, which results in healthy soil, a well-balanced ecosystem, and food worth eating."



Another creative touch in Arthur's home garden is repurposing empty glass bottles as markers for her plantings.



Arthur has recently taken on a new role in front of the camera as a correspondent for the PBS show “Growing a Greener World.” Here she is taping an episode with director of photography Carl Pennington, left, and executive producer and host Joe Lamp’l, right. In the chair is Lamp’l’s dog, Odie.

EXPANDING HORIZONS

For someone her age, Arthur has forged an unusually diversified role in the gardening world, one in which she shifts effortlessly between audiences ranging from horticulture industry insiders to neophyte home gardeners and even elementary school children. “As a self-employed individual, I have the opportunity to do a lot of different things with my knowledge and enthusiasm for growing plants,” she says. This includes consulting for public gardens, nurseries, and landscape contractors, speaking throughout the United States at horticulture symposiums, and writing for both popular magazines and horticulture trade publications such as *Greenhouse Grower*.

As part of her efforts to get younger horticultural professionals more engaged, Arthur started and is active in a Facebook group, Emergent: A Group for Growing Professionals. The group has become a forum where like-minded 20- and 30-somethings passionate about gardening can network and share ideas.

Arthur’s transition to television seems to be a logical progression because it enables her to reach an even broader audience. Joe Lamp’l, founder and host of

“Growing a Greener World,” saw Arthur’s promise as an ambassador for gardening and invited her to join the show as a correspondent. “Brie is genuine, passionate, articulate, brilliant, fearless,



Arthur, who fell in love with camellias during her time working at Camellia Forest Nursery, shows off a specimen of *Camellia japonica* ‘Royal Velvet’ blooming in her garden.

and devoted to bringing all that horticulture has to offer to professionals and consumers alike. She sees and gets the whole picture,” says Lamp’l.

Asked what the future holds, Arthur says, “I try not to over-anticipate what’s next, because I find that life and career are much more enjoyable when you can appreciate the now. Ultimately I hope to continue communicating the value of local food production and to influence the services that landscapers offer by adding edibles to the standard lineup. I dream about the day when this is a common practice, because I believe that every landscape offers an opportunity to grow beauty, ecology, and nutrition.”

To those thinking of entering the field of horticulture, Arthur offers this advice: “Be patient, be positive, and have faith that growing plants does make the world a better place. Collaborate with others as often as possible and be creative so that you are never bored.”

Helen Yoest is a wildlife gardener, author, and consultant based in Raleigh, North Carolina. Her most recent book is Plants with Benefits (St. Lynn’s Press, 2014).

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go native with Ornamental Grasses

Hailing from the high plains and prairies to stream banks and woodland edges, native American grasses provide evocative charm to any landscape.

BY C. COLSTON BURRELL

'Shenandoah' switchgrass is particularly effective when sited so that its inflorescences are backlit by morning or evening light, as shown in this planting at VanDusen Botanical Garden in Vancouver, British Columbia.

GRASSES EXEMPLIFY elegance. Purity of form, sensual texture, sound, movement, and quiet color all contribute to their allure. Victorians adored their many fine qualities, but ornamental grasses fell out of favor after the turn of the 20th century. A resurgence of interest in grasses for American landscapes came in the 1990s with the pioneering work of the Washington, D.C.-based landscape architecture firm Oehme, Van Sweden & Associates, whose work popularized grasses, as well as a blousy, painterly approach to design.

Today, a renewed interest in America's diverse native flora is drawing well-deserved attention once again to these versatile plants, not just for meadow plantings and habitat restorations, but in home landscapes as well. This is reflected in the fact that a number of landscape architects and designers, including Larry Weaner in Pennsylvania and John Greenlee and Bernard Trainor on the West Coast, have shifted away from the transplanted European aesthetic, which incorporated primarily Eurasian species such as maiden grass (*Miscanthus* spp.), fountain grass (*Pennisetum* spp.), feather-reed grass (*Calamagrostis* spp.), purple moor grass (*Molinia* spp.), and fescues (*Festuca* spp.).

A transition to using native species is also significant from an ecological perspective. Over time, several of the Eurasian species have become invasive in North America, escaping cultivation and compromising native ecosystems (see box, page 30).

DESIGN LEARNING CURVE

With the Eurasian species, designers and gardeners got used to taking a one-grass-fits-all approach. But for native grasses, proper siting within landscapes is key to their success. Species such as Indiangrass (*Sorghastrum nutans*) and little bluestem (*Schizachyrium scoparium*), for example, initially were disparaged for being overly floppy. But if we take a cue from their wild habitats and use these plants in dry sites with moderate to low soil fertility, they will excel.

Here are a few excellent native grasses to consider adding to your garden. Most are suited to sunny sites, but I've included a couple of shade-tolerant species at the end. (For additional native grass selections, see chart, page 31.)

GRASSES FOR SUNNY SITES

Ragged, club-shaped heads of **bushy beardgrass** (*Andropogon glomeratus*, USDA Hardiness Zones 5–10, AHS Heat Zones 10–1) give the effect of a feather duster topping the stiff stems above basal tufts of thin, arching blades. The plant grows wild in low open woods, margins of ponds and marshes, wet pine savannas, and roadsides throughout much of the



The inflorescences of tufted hairgrass are at peak color in early summer.

United States. Try it in informal settings such as at the edge of a pond or other wet spots where few other plants thrive. Designer and native grass expert John Greenlee of Brisbane, California, says it is

“an underused accent for its showy seed-heads and reddish fall-winter color.” It does best in full sun, growing two to four feet tall and up to two feet wide. Established plants form dense, multi-stemmed clumps that slowly creep outwards.

Though **tufted hairgrass** (*Deschampsia cespitosa*, Zones 4–9, 9–1) is familiar to many grass aficionados, few realize that it is native to North America as well as Europe. This graceful grass can be found in bogs and wet meadows across southern Canada and the northern United States, as well as throughout the West. It produces 12-inch-tall clumps of arching evergreen foliage topped by airy golden inflorescences in early summer. A cool-season species, it will not tolerate drought or prolonged hot weather and may go semi-dormant after flowering. Site in full sun or light shade.

The featherlike plumes of **Lindheimer muhly** (*Muhlenbergia lindheimeri*, Zones 6–10, 10–3) appear on five-foot-tall stems above thin, spreading, semi-evergreen blades that droop at the tips, forming a fine-textured vase. The plumes mature from purple-brown to pale tan. The cultivar ‘Lenli’ has yellow autumn plumes. Greenlee considers it “one of the best flow-



Pink muhly (*Muhlenbergia capillaris*) is a show-stopper in late summer and early fall, when its fountainlike plumes of airy pink flowers burst into view—as seen here in a naturalistic planting at Chanticleer Garden in Wayne, Pennsylvania.

ering grasses for the American Southwest, Texas, and California,” but it is adaptable to cultivation well beyond its native range, even in the humid east. Plants are drought tolerant but quickly succumb to water-logging, so give it a well-drained loamy or sandy soil in full sun or light shade.

Pink Muhly (*M. capillaris*, Zones 6–9, 9–3) is also drought tolerant like Lindheimer muhly and prefers similar cultural conditions, but its native range comprises dry open woods, barrens, and rocky slopes in the Southeast and lower Midwest. This spectacular clumping species measures three feet tall and wide. Its gray-green blades form a fine-textured skirt for the rosy-red plumes that create an airy spherical crown above. ‘Lenca’ has deep rose-pink inflorescences. ‘White Cloud’ has ivory plumes.

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The airy, beaded inflorescences of **switchgrass** (*Panicum virgatum*, Zones 4–9, 9–1) are held above the gracefully arching foliage on thin but stiff, leafy stalks. Spring foliage may be red-tinged, and in autumn plants turn rich russet to burgundy. Plants are adaptable to drought and wet soil but grow best in full sun. It can be found on prairies and dunes, in meadows and open pine woods, and along the edges of freshwater marshes throughout most of North America.

“The switchgrasses are incredibly versatile,” says John Hoffman, owner of Hoffman Nursery in Greensboro, North

Carolina. “Their upright habit makes them good accent plants. Use several in a mixed planting to establish a visual rhythm and tie the planting together. They’re also very strong in a mass planting.”

Clumps vary in stature from three to eight feet tall and four to five feet wide. ‘Cloud Nine’ grows to seven feet with diaphanous heads and gray-green leaves on wiry stems that may flop in wind and rain. ‘Northwind’ has upright, five-foot stems clothed in wide, deep green leaves. ‘Shenandoah’ reaches four feet and has rich burgundy fall color.

Tufts of arching blades that turn russet to burgundy in autumn make **sugarcane plume grass** (*Saccharum giganteum*, Zones 6–9, 9–5) a standout in any setting. This gorgeous clumping grass with a spreading

vase of wide blades and culms to 10 feet tall bears billowing plumes that open red and mature to silver. Found in meadows, open woods, and along roadsides in eastern and central United States, this grass is drought tolerant and moderately tolerant of water logging. Place it in loamy or sandy soils in full sun or light shade.

Little bluestem (*Schizachyrium scoparium*, Zones 3–8, 8–1) is “a grass that fills the moment,” says Roy Diblik, owner of Northwind Perennial Farm in Burlington, Wisconsin. “As we develop our varied plant patterns and look to create the rhythm of the planting, the growth rate and habit of *Schizachyrium* are just right in relation to most plants, producing a bridge between different patterns.” Plants begin growth in summer, and the silvery seeds are prominently dis-



The upright habit and blue-green foliage of little bluestem provide a good foil for brightly colored perennials such as coneflowers, as seen here, and black-eyed Susans.



Statuesque Indiangrass, above, provides a show with its erect flower stalks starting in midsummer and stretching into winter. Left: In contrast, the airy, fragrant plumes of prairie dropseed arch gracefully from compact tufts of basal foliage.



(*Sorghastrum nutans*, Zones 4–9, 9–1) stand like one-sided flags atop erect or arching stems above dense clumps of spreading blades that droop at the tips. Mature clumps to six feet tall bear many culms and may measure three feet wide. Plant in full sun or light shade, in loamy or sandy soil; rich soil causes plants to develop weak stems that flop in wind or rain. These drought-tolerant plants are found in dense stands in meadows, prairies, glades, and roadsides throughout eastern and central North America and the Southwest.

Prairie dropseed (*Sporobolus heterolepis*, Zones 3–8, 10–2) is “a great connector grass, creating continuity within the planting,” says Diblik. Its long, threadlike blades form dense tufts with one- to three-foot arching plumes of fragrant flowers appearing in

played late in the season on burgundy or golden stalks. “The fuzzy flowers along the stems reflect the changing light of day, sparkling within the garden,” says Diblik.

This upright clump-forming grass grows one to three feet tall and one to two feet wide. Plant it in sandy or loamy, well-

drained soil, in full sun or light shade. Its deep, water-seeking roots hold the soil and impart excellent drought tolerance. It grows wild in meadows, prairies, roadsides, dunes, and fields from Maine and Quebec to Alberta, south to Florida and Arizona.

Silky golden plumes of **Indiangrass**

summer. The fragrance, likened to the scent of peaches or buttered popcorn, originates from a sticky substance that coats the inflorescence. “The soft arching flowers in mid-August are the highlight of this grass,” says Diblik. “Then as the days go by, the foliage changes to a golden yellow.”

Found in prairies, meadows, barrens, and roadsides throughout eastern and central North America, this grass shows good drought tolerance. It does best in full sun or light shade, and “has a very forgiving nature as far as soil conditions,” says Diblik.

GREAT GRASSES FOR SHADE

Grasses that tolerate shade are few and far between, but one good choice is **wood or riverbank oats** (*Chasmanthium latifolium*, Zones 4–9, 9–1), with graceful stems to three feet, loosely clad with wide, blunt leaf blades. The wiry stems droop at the tips, presenting flattened, oatlike inflorescences.

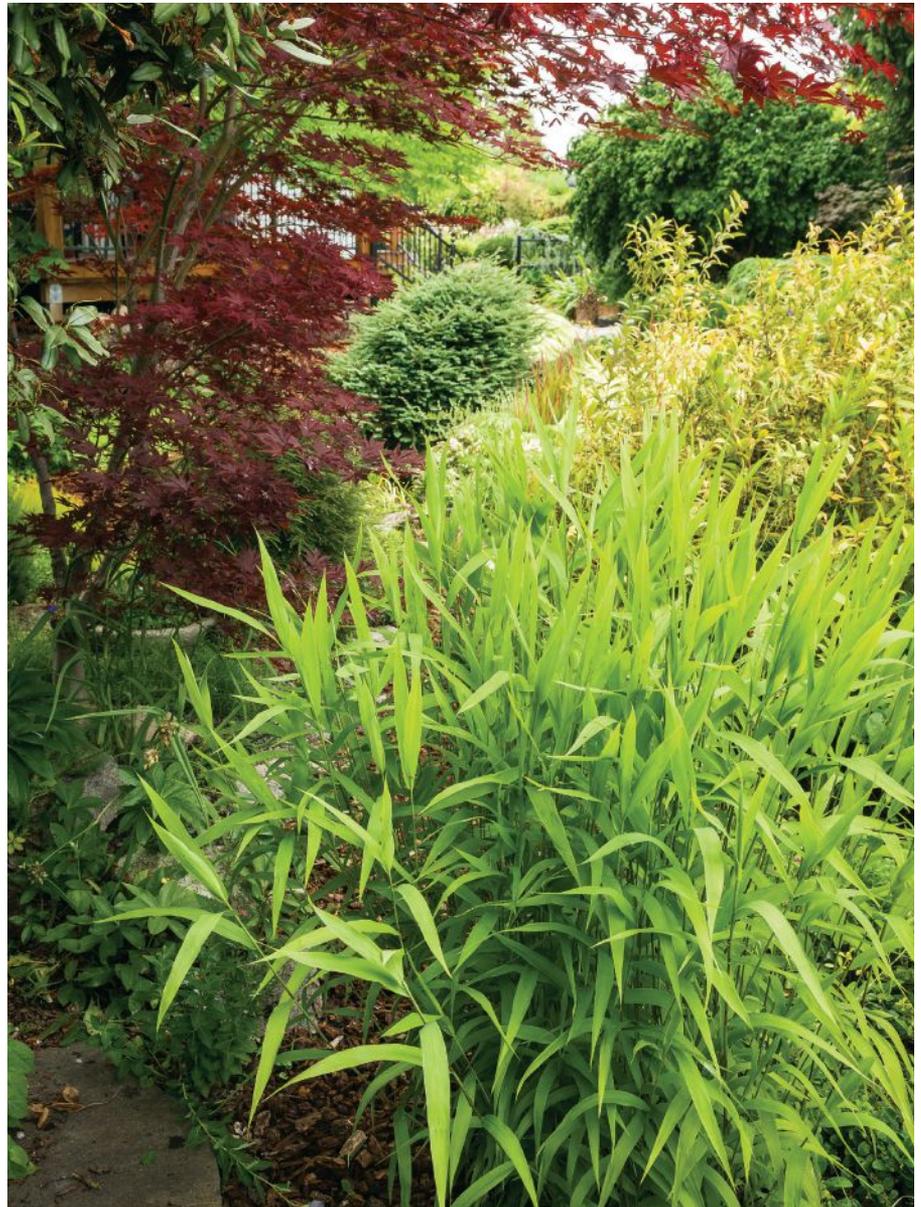
Suitable for a shady site like this one under a ‘Bloodgood’ maple, wood oats forms clumps of foliage topped in late summer by dangling oatlike seedheads that move with the wind.

Grow as a mass under the light to medium shade of trees, or as an accent at the middle or rear of a bed in average to rich, moist soil. Wood oats can tolerate a wide range of exposure from full sun to dense shade and can reseed prolifically on open ground. It is native to low woods, along shaded stream banks, and in floodplains from the mid-Atlantic to the southern Great Plains.

Aptly named **bottlebrush grass** (*Elymus hystrix*, Zones 3–9, 9–1) is another grass for shade. Linear foliage ascends the stem from a tufted winter rosette. The erect, sparsely clothed, three-foot-tall stems bear terminal inflorescences that resemble kitchen bottlebrushes. The seeds shatter early, leaving bare stalks in late summer, with foliage turning yellow in autumn. Adaptable to sun or shade, plants grow best in average to rich, moist soil, but do not compete well with other vegetation, and may be short-lived. It can be found in open woods and floodplains throughout eastern and central North America.

DESIGNING WITH NATIVE GRASSES

Our wealth of North American grasses has virtually unlimited landscape poten-



NATIVE ALTERNATIVES TO INVASIVE ORNAMENTAL GRASSES

When choosing alternatives to invasive exotic grasses, consider the outstanding attributes for which the grass is grown: foliage texture, plant form, or inflorescence shape. Remember that a grass native in one region of North America may be invasive in another. For instance, Mexican feathergrass (*Nasella tenuissima*) is native in Texas and New Mexico, but can be invasive in California. —C.C.B.

Invasive Grasses

Arundo donax
Cortaderia selloana, *C. jubata*
Imperata cylindrica
Miscanthus sinensis

Pennisetum alopecuroides

Native Alternatives

Arundinaria gigantea
Saccharum giganteum or *S. brevibarbe*,
Muhlenbergia lindheimeri
Chasmanthium laxum, *Andropogon glomeratus*
Saccharum alopecuroides or *S. brevibarbe*,
Panicum virgatum ‘Northwind’,
Panicum amarum ‘Dewey Blue’
Sporobolus heterolepis, *Nasella tenuissima*

MORE NATIVE ORNAMENTAL GRASSES

Name	Height*/ Spread (ft.)	Ornamental Characteristics; Cultural Information	Origin	USDA Hardiness, AHS Heat Zones
<i>Andropogon ternarius</i> (Split-beard broomsedge)	3/1–1½	Short leafy bracts, silvery plumes atop wiry stems; drought tolerant	East and South U.S.	5–10, 10–1
<i>Bouteloua curtipendula</i> (Sideoats grama)	3/1–2	Tight clumps of basal foliage with one-sided inflorescences along stems; adaptable, drought tolerant	North and South America	3–10, 10–1
<i>Bouteloua gracilis</i> (Blue grama)	1/1½–2	Fine-textured, gray-green leaves, flattened flower heads look like tiny combs; drought tolerant	Upper Midwest and West, Canada	3–10, 10–1
<i>Chasmanthium laxum</i> (Slender wood oats)	2½–3½/1–2	Slender, arching stems topped by delicate arrowhead-shaped seedheads; part to deep shade, moderate drought tolerance	Southeast U.S.	6–9, 9–2
<i>Elymus canadensis</i> (Canada wild rye)	2–5/2–3	Cool-season grass, with green to blue-green leaves and greenish flowers; may reseed	North America	3–8, 8–1
<i>Eragrostis elliotii</i> 'Wind Dancer' (Elliot's lovegrass cultivar)	2–3/2–3	Slender arching stems, blue-green leaves, topped with frothy white inflorescences; drought tolerant	Southeast U.S., Central America	6–10, 10–1
<i>Koeleria macrantha</i> (June grass)	2–2½/½–1	Dense cushion of foliage bears brushy flowers in spring; ideal for rock gardens and green roofs	U.S., Eurasia	3–9, 9–1
<i>Muhlenbergia rigens</i> (Deer grass)	4–5/4–6	Bunch grass with narrow leaves and silvery arching inflorescences; heat and drought tolerant	South and Southwest U.S., Mexico	6–10, 10–4
<i>Sporobolus airoides</i> (Alkalai sacaton grass)	3½–4/2	Warm-season bunch grass with narrow gray-green leaves and lacy, pinkish seedheads; heat and drought tolerant	Western U.S., Mexico	4–9, 9–4
<i>Sporobolus wrightii</i> (Big sacaton)	5–6/3–4	Narrow gray-green leaves and airy plumes; tolerates drought, salt, and alkaline soil	Southwest U.S., Mexico	5–9, 9–3

*Height includes blooms

tial. Groundcover plantings, specimens, flamboyant patterned masses, erosion control plantings, restored meadows, and even container displays are all part of the ever-expanding potential.

Designers and gardeners today interweave grasses into the fabric of plantings, the grasses being the warp and flowering perennials the weft. From a distance, the powerful presence of the grasses holds the eye. On closer inspection, the intricacy and diversity of the planting is revealed, much as it is in a meadow or prairie landscape where grasses dominate the matrix. When we take grasses out of the naturalistic plantings to which they are often relegated, juxtaposing them with hard edges and strong geometry, the gauzy, natural forms snap both into sharp focus.

One additional sign of aesthetic maturity in the use of grasses is realizing that they can play a subordinate role in the landscape. They do not have to be front-and-



The arching inflorescences of bottlebrush grass are showy in early summer.

center as specimens or massed in sweeping patterns. Instead, they can make a design statement when used to set off other landscape features, such as the form of a tree, a

sculpture, or the architecture of a home or garden structure. They also blend well in the middle or back of a bed or border as a backdrop to a rich floral tapestry.

The real power of native grasses lies in their ability to evoke a strong sense of place. In country gardens, they echo seasonal changes of the surrounding landscape, from the verdure of spring to the russet of summer and autumn. In urban and suburban gardens, native grasses reestablish a regional aesthetic and bring some of the beauty of wild lands to our daily experience.

So take a second look at native grasses. They deserve a permanent, if not preeminent place in the garden designer's repertoire. Their textures and luminescence will captivate the spirit, delight the eye, and reconnect us with our local landscapes. 🌿

C. Colston Burrell is a garden writer, speaker, and landscape design consultant. He lives in Free Union, Virginia.

Beguiling Climbing Roses

BECAUSE MOST climbing roses are scandent—meaning they will use their prickly stems to hoist themselves aloft as long as they have something to climb or lean on—they're one of the most useful plants in a gardener's bag of ornamental tricks.

Most grow canes from eight to 20 feet long or more, so they can tumble from small trees, adorn walls, pillars and posts, arbors, pergolas, fences, and archways with beautiful and often lusciously fragrant flowers. Instead of the plump bush-

Even small gardens can support a climbing rose. Here are several enchanting options to consider.

BY JEFF COX

iness of shrub roses, they add graceful verticality and use the spaces above our heads in eye-catching ways.

The nine climbing roses profiled here are selected based on my own experience as well as on recommendations from expert rosarians around the country. As a group, most are hardy, all have good disease resistance, and all pick from a basket of good qualities that makes them stars in the garden. For good measure, another eight excellent climbers are offered in a chart on page 37.

WHAT IS A CLIMBING ROSE?

Before we move on to the plants, let's clear up a few details relating to rose terminology. This article focuses on climbing roses, but you may see the terms "climbing rose" and "rambling rose" used interchangeably in some rose references, which can be confusing. Most climbing roses rebloom to some degree over the growing season and grow sturdy stems of a finite length. Rambling roses, on the other hand, tend to bloom once in late spring or summer, and can become huge. They can literally cover buildings and their stems are often more flexible than those of climbers. This is a result of the wild rose genes in their immediate ancestry. Climbing roses are the product of heavy hybridization, much like the hybrid teas and floribundas.



'William Baffin'

Second, not all roses suited for climbing are billed as such. For example, some English or modern shrub roses, such as Golden Celebration, discussed on page 36, can be trained as climbers. They just need a judicious tie or two to ensure they grow vertically. And hybrid musk roses make good climbers in hot, sunny regions, where they tend to put on extra height.

'Mlle. Cécile Brunner' (Climbing) (USDA Hardiness Zones 5–9, AHS Heat Zones 9–4) The climbing sport of the “sweetheart rose,” as ‘Mlle. Cécile Brunner’ is sometimes called, is vigorous. It acts like a rambler, scampering to 25 feet up into trees and burying eyesores under bushels of tiny, pointed pink buds and puffy little pink, fragrant, and fully-blown double roses. The foliage tends to be sparse along its green, almost thornless stems. Planted in a warm, sunny spot, it will produce two main flushes of bloom in early summer and then flower sporadically into fall.

This climber dates back to the late 1800s and its parentage is murky. Many rosarians classify it as a type of multiflora rose, but English rose breeder Peter Beales places it in the China rose camp. No matter what its heritage, it’s an ideal choice for a large spot and has a long-lived nature that will carry it down a generation of gardeners or two.

'Climbing Iceberg' (Zones 5–9, 9–5) Looking up at an arbor at his Garden Valley Ranch in Petaluma, California, the late Ray Reddell marveled at the masses of pure white roses cascading downward. “It’s ‘Climbing Iceberg,’” he said to me at the time, “and it’s a blooming fool.” Reddell, who died in 2014 and was one of the country’s top rosarians, wasn’t kidding. *Botanica’s Roses* calls the shrub form of ‘Iceberg’ “a unique variety that is head and shoulders above its peers...all in all, it is one of the best roses produced in the 20th century.”

Introduced in 1968, the climbing sport has all of the qualities of the shrub, a floribunda rose, with the added ability to extend its nearly thornless stems to 18 feet, making it perfect for accentuating a pillar. Its pure white, semi-double flowers, which appear in large clusters, give a cooling effect in the garden on hot summer days. It blooms prodigiously from late spring to fall. Rain



'Mlle. Cécile Brunner'



'Climbing Iceberg'

doesn't ruin its blooms, and the plant is sturdy and reasonably disease resistant except in regions with humid summers.

'Alister Stella Gray' (Zones 7–10, 10–6) When tied up to a trellis or archway, the slender 12- to 15-foot canes of this relatively thornless rose give it a more graceful appearance than climbers with thick canes such as 'New Dawn'. The sprays of fully double roses are yellow in bud, and open to light yellow petals with apricot centers that eventually fade to white. The effect is charming and subtle. It has two



'Alister Stella Gray'

bonuses. First, the flowers are deliciously scented, and second, it blooms non-stop from early summer to frost. 'Alister Stella Gray' is a noisette rose, a type named for the breeder Philippe Noisette. This rose's main drawback is its susceptibility to winter kill in zones colder than 7, but in the warmer regions, it's a striking and valuable choice as a climber.

'Dublin Bay' (Zones 5–9, 9–5) Despite what you may read in some rose references, 'Dublin Bay' is not fragrant, but other than that it has no drawbacks to speak of. A cross between 'Altissimo'—a large-flowered modern climber bearing single, deep crimson flowers—and pink-flowered 'Bantry Bay', it was introduced in 1975. Chief among its good qualities is its resistance to black spot and mildew, which means it seldom if ever needs spraying. A close second is



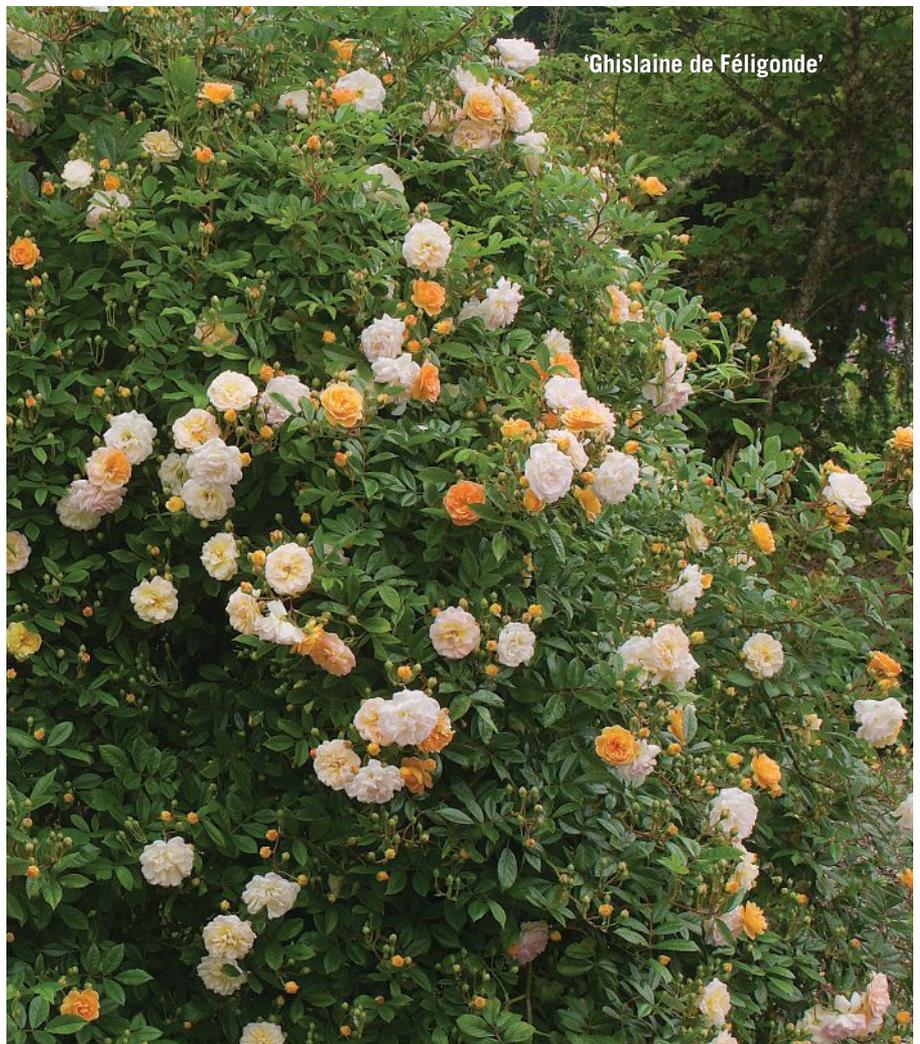
'Dublin Bay'

its determination to bloom again and again. Given enough sun, good soil, and adequate water, it produces flowers from June to October. In my California garden, 'Dublin Bay' routinely opens its last flowers in late December.

The pliable and easily trained canes, relatively thornless when young, grow up to 10 feet. No matter how you train them, they produce enough side shoots to display their fully double, deep red flowers

to advantage. The foliage is a glossy dark green—just right to set off the bright red roses. 'Dublin Bay' is the best visual choice for a red-flowered climber, but if you absolutely must have good fragrance in a deep red, double, climbing rose, I suggest trying 'Don Juan' (see chart, page 37).

'Ghislaine de Féligonde' (Zones 6–10, 10–5) Dating from 1876, this gorgeous rose is technically a rambler because of its



'Ghislaine de Féligonde'



'Fourth of July'

multiflora heritage, but since it grows only to 10 to 12 feet it functions as a climber. The sweetly-scented flowers, which repeat bloom throughout the growing season, blend apricot, peach, pink, and white colors. Its foliage and slender, almost thornless canes are disease resistant. Among the accolades it has received is the Royal Horticultural Society's prestigious Award of Garden Merit, and when you see it in full bloom, you'll immediately understand why.

'Fourth of July' (Zones 5–9, 9–4) The story behind the birth of the marvelous climber 'Fourth of July' begins with two choice roses: 'Altissimo'—one of the parents of 'Dublin Bay'—and 'Roller Coaster', a miniature with crimson semi-double ros-

es streaked with white and creamy yellow in sunburst patterns. In the 1990s, Tom Carruth, at the time the head hybridizer at Weeks Roses, crossed the two and—kaboom!—the result was 'Fourth of July', a rose so gorgeous that it earned an All-America Rose Selections (AARS) Award when introduced in 1999—the first such honor for a climber in 23 years.

"'Fourth of July', in my opinion, is one of the best garden roses introduced in the last decade, and it's an eye catcher in every section of the United States," says John Mattia, an AARS judge. Its very floriferous canes reach 12 to 15 feet, blooming repeatedly during the growing season. Its apple-scented blossoms open in closely-packed clusters of velvety-red bicolor petals, streaked with radiating bursts of

MAINTAINING CLIMBERS

Climbers tend to have vigorous canes that, when they reach the top of an arch or arbor, want to keep growing straight up—which makes it hard to enjoy the flowers from ground level. Climbing hybrid tea roses are especially set on verticality. If you bend them over and tie them along the horizontal supports of a fence or atop an arbor, they will grow laterals that will be very floriferous later on.

You can stimulate bloom up the sides of the arbor posts by staggering the height of young canes when pruning. To do this, cut weak, one-year canes back to 18 to 24 inches; a slightly stronger one-year cane to about three feet, and a more vigorous one- or two-year cane to about four feet. Allow vigorous older canes to reach the top and form the horizontal stems. All the canes will then put out new floriferous growth from just above ground level to the top of the arbor.

Because climbing roses don't climb using tendrils or hooks, plan on securing them in place with plastic tying ribbon, twine, or strips of cloth. Avoid using wire, which can cut into and injure the canes.

As with all roses, climbers will grow best in full sun—at least eight hours a day—in a loamy, free-draining soil with a pH that is slightly acidic (between 6 and 7). Roses are heavy feeders, so apply compost or organic fertilizer containing micronutrients in early spring. Supplement with "teas" made of well-rotted manure, compost, and fish emulsions regularly during the growing season. Apply a layer of organic mulch around roses to conserve soil moisture and suppress weeds. Reblooming varieties flower on new wood and should be pruned back hard when dormant to stimulate new floriferous growth. Once-blooming roses like ramblers should be pruned immediately after bloom so new wood has time to grow and harden off over the rest of the growing season. Next year's flower buds will emerge on this growth, so don't prune a once-bloomer when dormant.

—J.C.

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white stripes. Each four-and-a-half-inch flower is centered with a cluster of golden stamens that adds to the firework effect. The deep green foliage is moderately resistant to fungal diseases.

Golden Celebration (Zones 5–9, 9–5) English rose breeder David Austin introduced Golden Celebration (“Ausgold”) in 1993, and in the United Kingdom it is generally treated as a modern shrub rose and grown in mixed borders. But in regions of the United States where summers are warmer and sunlight is stronger than in Britain, it also performs nicely as a climber that can reach 10 feet and is an excellent choice for smaller gardens. The rich golden color of the flowers reaches out for the eye, so it’s a perfect choice when looking for a plant to serve as a focal point, particularly because its blooms repeat from early summer into fall. But that’s just the

beginning of this rose’s charms. Walk up close to this climber and take note of the intricate way in which the flowers are formed. From yellow buds with a reddish blush, fully double flowers open with several rings of petals extending out to create a flat background for an inner circle of small, creased petals that form a cup.



Golden Celebration



‘Aloha’

When fully open, its roses are among the most beautifully formed of any you’ll see. Then bring your nose to a blossom and enjoy its strong, delicious scent. Golden Celebration is moderately disease resistant but may show signs of black spot in regions with humid summers.

‘Aloha’ (Zones 6–10, 10–5) Introduced in 1949, this climbing hybrid tea known for its role in the parentage of David Austin’s English roses, ranges up to 10 feet on sturdy canes. Its rich pink, four- to six-inch blossoms have a magenta cast on the undersides of the petals, of which there can be up to 60 per flower. The sweetly

fragrant flowers appear all summer long. The foliage is dark green, glossy, and very disease resistant. It is recommended for use on pillars or posts but can be grown on a trellis if allowed a few years to achieve maximum growth. Its habit of opening sprays of roses all at once makes it a valuable cut flower for indoor arrangements.

‘New Dawn’ (Zones 5–9, 9–5) No list of superb climbers would be complete without ‘New Dawn’. Introduced in 1903, it has stood the test of time. The World Federation of Rose Societies named it the “World’s Favorite Rose” in 1997 and elected it to the World Rose Hall of Fame. All of this is for good reason. I planted a specimen by my garden fence and within two years it had filled an area of the fence 20 feet wide and seven feet high.

Some flowers are produced in small clusters and some singly atop short stems that grow from pliable canes, allowing

MORE CLIMBERS TO COVET

Name (Breeder, Year)	Type of Rose	Height (feet)	Flowers	Other Remarks	USDA Zones, AHS Zones
'Don Juan' (Jackson & Perkins, 1958)	Large-flowered climber	8–12	Large, deep burgundy red	Sweetly fragrant	5–9, 9–5
'Mme. Alfred Carrière' (Schwartz, 1879)	Noisette	12–18	Large, double creamy white-tinged pink	Very fragrant and tolerates part shade	5–9, 9–5
Polka ('Meitossier') (Meilland, 1991)	Romantica	8–10	Dark apricot fading as mature	Fragrant and long blooming	5–9, 9–5
'Sombreuil' (Robert, 1850)	Climbing tea	9–12	Large, creamy white with tinge of pink	Strongly fragrant	4–9, 9–4
St. Swithin ('Auswith') (David Austin, 1993)	English	6–8	Double, soft-pink full flowers	Strong myrrh fragrance	5–9, 9–5
White Eden™ ('Meiviolsar') (Meilland, 2006)	Romantica	10–12	White-tinged pink	Lightly fragrant	5–9, 9–5
'William Baffin' (Svejda, 1983)	Shrub	8–12	Double, pink with white markings	Very hardy and disease resistant	3–9, 9–3
'Zéphirine Drouhin' (Bizot, 1868)	Bourbon	8–12	Rosy pink, fragrant, thornless, crimson new leaves	Tolerates part shade	5–9, 9–5



the gardener to tie it out at any angle from horizontal to vertical. 'New Dawn' repeat blooms profusely and benefits from some thinning and deadheading during the peak of the growing season. Prune carefully and be sure to wear protective gloves, however, because its

thorns are wicked. The medium-sized roses are double, soft shell pink, and lightly fragrant, with a sweet and slightly fruity scent. The foliage is glossy dark green and disease resistant, a real plus in hot, humid Eastern climates. Its hardiness makes it exceptionally useful in the

northern tier of states, but it also performs beautifully in warmer regions. 🌹

Jeff Cox is the author of several gardening books, including Landscaping with Roses (The Taunton Press, 2002). He lives in Kenwood, California.



Shades *of* Shade

Understanding the shifting patterns of shade in your garden is the first step to turning a common landscape problem into a glorious asset.

SHADE IN A GARDEN changes with the path of the sun and involves so many variables that it is difficult to describe and even harder to comprehend. Learning about the shade patterns in our landscape is a long-term and detailed process, but well worth the effort, because it makes us better gardeners.

Shade is characterized by the absence of light, but the lack of something is rare-

ARTICLE AND PHOTOGRAPHS BY
JENNY ROSE CAREY

Throughout the day, ever-changing shade patterns are cast on a path in the azalea walk at Jenkins Arboretum and Gardens in Devon, Pennsylvania.

ly so full of potential. My plant-packed shade garden is a constant source of joy to me, with cool, refreshing places to sit away from the heat of the sun and paths that entice visitors to explore. Instead of seeing shaded areas as trouble spots, I encourage you to develop them and enjoy all they have to offer. To get started, you have to be able to recognize the patterns and types of shade in your garden.

TYPES OF SHADE

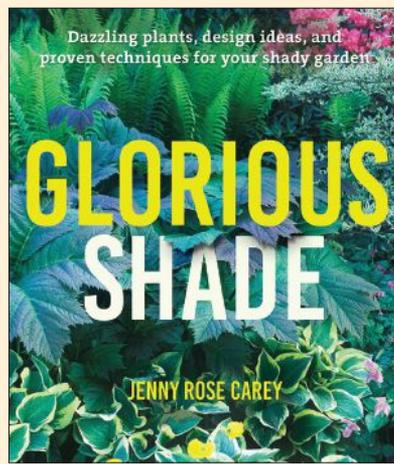
Shade shifts daily and seasonally. The number of hours of shade, the time of day that it occurs, and the intensity of the light falling on a garden are the major factors used to describe types of shade. Assessing shade levels can be done objectively using light meters, but I prefer to use an observational approach.

Generally, an area in full shade receives fewer than two hours of light, while one in part shade receives between two and six hours of light and is shaded for the rest of the day. For comparison, an area in full sun receives direct sunlight for more than six hours a day.

It is helpful, however, to become familiar with the intricacies of shade conditions, because this knowledge enables us to make the most appropriate plant choices. The following categories can be used to describe garden shade more accurately.

FULL SHADE

Areas of full shade receive little direct sunlight, but some ambient light reaches



This article is an adapted excerpt from *Glorious Shade: Dazzling Plants, Design Ideas, and Proven Techniques for Your Shady Garden* by Jenny Rose Carey. Published by Timber Press, Portland, Oregon, 2017. Used with permission of the publisher.

plants by being reflected off nearby surfaces. Such areas are often found on the

darker side of houses or other buildings, under large coniferous trees, and beside dense hedges.

In full shade, plants grow steadily but slowly. Shade-loving plants tend to increase vegetatively, often by runners, developing new patches that gradually spread out from the parent plant. They tend to flower less profusely than they would with more light, but the flowers last longer because temperatures are lower in the shade.

The darkest areas of full shade are described as **deep shade**, and they receive almost no direct sunlight. These areas of low light intensity are often coupled with dry soil, so plants also need to be very drought-tolerant to grow here.

PART SHADE

An area in part shade is shaded for a portion of the day and receives between two and six hours of sunlight. Part shade can occur under or beside trees and shrubs, or next to hedges, walls, fences, and other garden structures. There are many cate-



Birch branches and leaves filter light in the border of this garden, creating dappled shade for the mixed perennials below.



gories of part shade, which are detailed in the following descriptions:

EDGE SHADE is found on the perimeter of a deciduous woodland around individual trees. This type of shade provides good growing conditions because the light that reaches the plants is sufficient for growth and flowering, but there is enough shade to protect plants from burning during hot summer days.

DAPPLED SHADE is provided by trees, especially deciduous ones. The size of the leaves and the height and extent of the canopy influence the amount of light that reaches the ground. Trees with a higher canopy or smaller leaves allow more light to reach the ground below, while a low canopy and large leaves provide a more dense shade. As tree branches and leaves shift in the wind and the sun passes overhead, the “puddles” of light move and change in shape. Plants in this type of shade can receive significant light but it is unpredictable and highly seasonal.

BRIGHT SHADE is found in areas near surfaces that reflect light, such as lakes, ponds, windows, and white or light-colored walls. The amount of light here may vary considerably according to the time of day and the season. A wide range of plants can be grown in bright shade.

MORNING AND AFTERNOON SHADE identifies the time of day an area receives shade. Planting areas that are to the west of an object casting shade are in morning shade. These areas stay cool in the mornings but heat up in the hot rays of afternoon sun.

Plants that benefit from morning shade bloom early in the year—such as rhododendrons, magnolias, and fruit trees—because their delicate flower buds need to warm up gradually after a frosty night. In summer, these west-facing plants receive the hottest sun of the day, so choose tough, drought-tolerant plants that can cope with the afternoon heat.

A planting bed situated to the east of a shade producer will receive morning sun and afternoon shade. Late-day sun can scorch leaves and flowers, so site plants that need protection from heat as well as sun—such as hostas, astilbes, and clem-

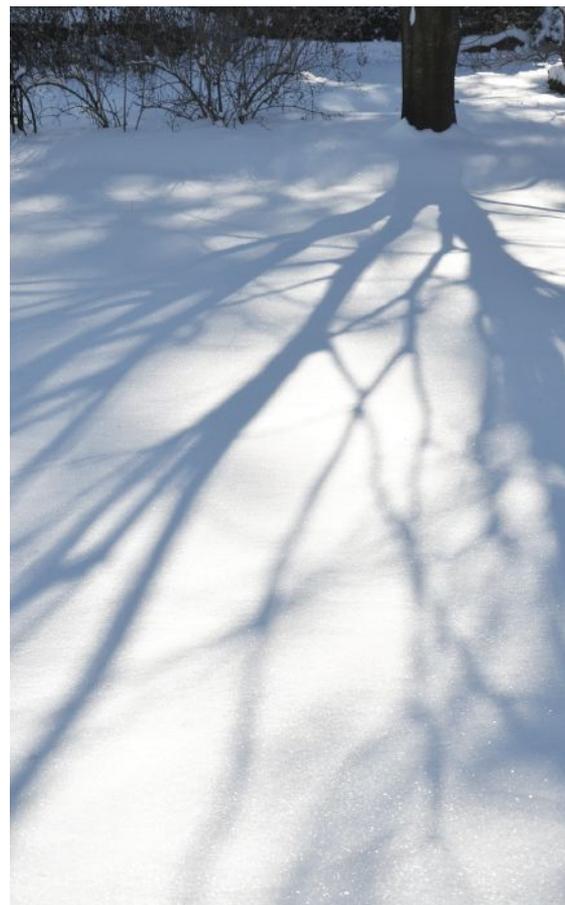
Magnolias, maples, and other trees block the morning sun in this partly shaded hillside garden.



patterns of shade change. Plants emerge from dormancy and begin to grow.

By the summer solstice, the day is at its longest. The path of the sun is high, allowing light to filter into unexpected places. The plants need the extra light because they are in active growth. As summer progresses, the days get shorter again but the sun is at its strongest intensity and temperatures are at their highest.

Autumn brings shorter days and a decrease in shade as the deciduous trees drop their leaves. The colder weather brings on



Deciduous trees play an important part in the seasonal changes of a garden's shade pattern. Above: In summer, their dense leaf canopies cast deep shadows on the ground below. Right: In winter, after the leaves have fallen, their bare branches cast open shadows.

atis—in areas with afternoon shade. In general, the hotter your climate, the better afternoon shade is for your plants.

HOW SHADE SHIFTS THROUGHOUT THE YEAR

In all gardens, except those at the equator, there is a predictable progression of seasonal shade that affects plants. The closer to the earth's poles that you garden, the greater the difference will be between the shade patterns of summer and winter. At the equator, day length is consistent throughout the year, and seasonal change is minimal. We all know that the

shaded areas in our gardens change from month to month, but we may not realize how much.

During winter, the weather is cooler or cold, depending on where you live. There is more shade, as the sun is only up for a short time and its path across the sky is low. Some areas of the garden are in full shade for days or weeks at a time. Plants slow their rate of growth or retreat into dormancy.

In spring, the days lengthen and there are fewer hours of shade. The sun is higher in the sky, the days become longer, and the

dormancy in most plants, so the change in shade level does not impact their growth.

The key to successful shade gardening is being aware of the changing daily and seasonal shade patterns. By carefully noting the levels of shade in every part of your garden throughout the year, you'll have the information you need to expand your plant palette and maximize enjoyment of your landscape. 

Jenny Rose Carey is senior director of the Pennsylvania Horticultural Society's Meadowbrook Farm in Jenkintown, Pennsylvania.

Bush Snap Beans: Easy to Grow—Easier to Enjoy

by Jeff Cox



'Blue Lake' is a longtime favorite bush snap bean with high yields and great flavor.

NATIVE AMERICANS had been growing beans in the warm coastal areas of Peru for thousands of years before the arrival of Europeans. In fact, lima beans are named for Lima, Peru, the town where the Spanish conquistadors first encountered them centuries later. In Europe at the time, the only “beans” people knew about were favas, lentils, and chickpeas. These Peruvian edibles, which proved to be a whole new class of tasty and nutritious legumes, were eventually given the botanical name *Phaseolus vulgaris*.

Edible podded beans of long ago grew on climbing vines. The pods had a fibrous strand running their length, thus they were known as string beans. Over the years, starting in 1894 when Calvin Keeney of Le Roy, New York, introduced the first “stringless” bean, the strings have been bred out of the species; now we call them snap beans. And that’s how you know they are ready to harvest: when you bend one, it snaps.

Breeding work also brought us the bush snap beans. These varieties grow from 15 to 24 inches tall, need no support, and produce abundant harvests,

making them among the most popular crops in today’s vegetable gardens.

Another minor variant is filet beans, which are typically harvested early, well before the slender pods have begun swelling with seeds.

GROWING GUIDELINES

Bush snap beans are frost-tender annuals. They demand full sun and grow best in a consistently moist, friable soil amended with finished compost to supply adequate phosphorus and potassium.

Beans are relatively light feeders when it comes to nitrogen; like other legumes, their roots “fix” soil nitrogen with the aid of bacteria. Each legume hosts a different species of bacteria that colonizes its roots, taking nitrogen from the air and converting it to a form that plants can use. In the case of snap beans, it’s *Rhizobium leguminosarum* biovar *phaseoli*. Inoculating bean seeds with this bacterium encourages this important symbiotic relationship. Bean inoculants are available at garden centers and online. To use an inoculant, moisten the bean seeds and roll them around in the powder to coat just before planting the seeds.

Wait until your soil has warmed to at least 55 degrees Fahrenheit before sowing inoculated seeds directly in the garden, spacing them two to four inches apart and one inch deep. Plants grow quickly

PLANTING BASICS

Getting Started Sow directly in the garden when soil has warmed in late spring or early summer. For extended harvest, make successive plantings two to three weeks apart.

Spacing Plant one inch deep, two to four inches apart. Thin to four inches in rows 20 to 24 inches apart.

Days to Maturity Harvest in 40 to 72 days, depending on variety.

to produce a harvestable crop in 40 to 72 days from sowing, depending on variety.

Snap beans don't do well with weed competition, but cultivating weeds with a hoe risks damaging shallow bean roots. Instead, remove weeds when they are very small, then apply an organic mulch around the bean seedlings, which has the added benefit of keeping moisture in the soil.

These plants tend to grow quickly, set a crop of seed-bearing fruits, and then put energy into ripening the seeds, which slows or stops further fruit production. There are some varieties that produce over a longer period of time, but to keep your kitchen in fresh beans over the whole growing season, harvest regularly and make succession plantings at two to three week intervals. Aim your final sowing for about two months before the first expected fall frost.

PESTS AND DISEASES

Bean leaf beetles and Mexican bean beetles are major pests. The former eat the aboveground parts of the plant and their larvae eat the roots, causing the whole plant to wilt. The latter skeletonize leaves and damage the fruits and stems. In small gardens, handpick and destroy adults and larvae and check under the leaves for egg masses. Soybeans can be planted as a trap



Applying a layer of mulch around bush beans is the best way to reduce weed competition.

Sources

Baker Creek Heirloom Seeds, Mansfield, MO. www.rareseeds.com.

Johnny's Selected Seeds, Winslow, ME. www.johnnyseeds.com.

Peaceful Valley Farm & Garden Supply, Grass Valley, CA. www.groworganic.com.

Renee's Garden, Felton, CA. www.reneesgarden.com.

Territorial Seed Company, Cottage Grove, OR. www.territorialseed.com.

W. Atlee Burpee & Co., Warminster, PA. www.burpee.com.

crop. Neem is an effective treatment for both of these pests.

Snap beans would be susceptible to a host of diseases had breeders not selected for resistance to anthracnose, mosaic virus, and several other diseases. Downy and powdery mildews can be troublesome; keeping leaves dry helps reduce disease spread. To irrigate beans, use a soaker hose or dig a six-inch trench between rows and fill it with water weekly.

RECOMMENDED VARIETIES

'Blue Lake' An old favorite for its great

flavor and high yields over a long period (matures in 55 to 60 days).

'Carson' A high-yielding, bright yellow bean with good disease resistance (58 days).

'Crockett' Sturdy, disease-resistant plants produce loads of sweet beans (55 to 60 days).

'Denver' The slender pods of this filet bean are fleshy and sweet. Sturdy, short plants yield prolifically (66 days).

'Nickel' A flavorful, high-yielding filet bean with strong disease resistance (53 days).

'Orient' This bean has superior flavor as well as good disease resistance (55 days).

'Red Swan' Pink-and-white flowers are followed by sweetly flavored purple-red pods (55 days).



'Roma II' An improved bush variety of the heirloom romano-type bean with a rich flavor (55 days).

'Tendergreen' Heavy yields of six-inch pods keep coming, even in very hot weather (72 days).

ENJOYING THE HARVEST

All snap beans are most tender when harvested young. Pulling the beans off can damage or uproot whole plants, so I use a pair of snips to cut the beans off.

Besides being delicious, beans are low in calories and fat and high in fiber. They are a good source of vitamins A, C, K, B6, and folic acid, as well calcium, iron, and potassium. Eat them raw as crudité's or steam them lightly—don't overcook or you'll lose that delightful snap.

Beans also freeze well. Simply blanch young pods in boiling water for two minutes, plunge them in ice water, then drain. Store meal-sized portions in freezer bags so you always have ready-to-use homegrown beans for your next culinary creation.

Jeff Cox is the author of The Organic Cook's Bible (Houghton Mifflin Harcourt, 2006).

Hollister House Garden: An English Garden in Connecticut

by Julia Polentes



AMONG THE pastoral hills of northwestern Connecticut sits Hollister House Garden, a traditional English-style garden that evokes the sense of having wandered into a fairy tale. Owner George Schoellkopf was inspired to create it nearly 40 years ago, after a visit to Kent, England, where he toured the gardens of Sissinghurst Castle. He was enchanted by its series of garden rooms, defined by tall hedges and brick walls. Each room presented new views and different color combinations. The abundance of plants softened the

hard lines of the walls, melding them into the surrounding landscape. He returned home and set to work on his own garden of rooms.

AN ENGLISH GARDEN FOR NEW ENGLAND

Schoellkopf, a collector and dealer of American decorative and folk art, had purchased his gently sloping, 27-acre property in 1978 for its historic house—a saltbox farmhouse built in 1760—and the beauty of the surrounding landscape. For the Sissinghurst-inspired formal garden, he wanted a design that wouldn't seem “preten-

tious or inappropriate for an 18th-century Connecticut farm.” His solution was to build a wall, complete with walkways, at a slight diagonal to the axis of the restored, expanded farmhouse. This was the first of many carefully placed “imperfections” that would come to characterize the garden.

After he created the walls of his garden, Schoellkopf experimented with plants. Because England has a wetter and milder climate than New England, many species that are popular in English gardens languish in Connecticut. Undeterred, Schoellkopf tried them out in various locations

The Walled Garden features a serene reflecting pool enclosed by a central brick wall that supports a profusion of vines and climbers.

Additional Information

Hollister House Garden, 300 Nettleton Hollow Road, Washington, CT 06793. (860) 868-2200. www.hollisterhousegarden.org.

- Hours: Open May through September, every Friday from 2 p.m.–5 p.m. and every Saturday from 10 a.m.–4 p.m.
- Admission: Requested donation of \$5.
- Hollister House Garden participates in the AHS's Reciprocal Admissions Program.

Other nearby sites to explore:

Bellamy-Ferriday House & Garden, Bethlehem, CT.

www.ctlandmarks.org/content/bellamy-ferriday-house-garden.

The Glebe House Museum & Gertrude Jekyll Garden, Woodbury, CT.

www.glebehousemuseum.org.

Highstead Arboretum, Redding, CT. www.highstead.net.

and replaced those that failed to flourish. One survivor is *Euphorbia griffithii*, the only hardy euphorbia with orange flowers and a preference for wet soil conditions. It thrives at Hollister, blooming for a month and a half beginning in June.

The walls and tall hedges provide a backdrop for a myriad of plants that now fills the garden. Each room offers different perspectives of the picturesque house, Schoellkopf's private residence. Like the house, described by Schoellkopf as "a pleasant jumble," the garden as a whole doesn't have an overarching focus and each room is unique.

"The best description of the garden is a constant battle between order and chaos. The plan is ordered, but not the experience," says Schoellkopf. "It is composed of

right angles and paths—inside that structure is abundance. The plants are supposed to look as if they grow there naturally."

In reality, it took Schoellkopf years to achieve diverse color schemes that change gracefully through the seasons, with spring being "the most spectacular in the garden," he says. He particularly appreciates the serendipity of self-seeding plants. For example, he allows forget-me-nots (*Myosotis sylvatica*) to seed themselves around the feet of boxwoods, providing "the one moment you can have blue in the garden," he says.

SHARING HOLLISTER WITH THE PUBLIC

In 2004, Schoellkopf and a group of supporters came together to form Hollister

House Garden, Inc., a nonprofit. With the help of the Garden Conservancy, Schoellkopf and Hollister House Garden, Inc. worked out an arrangement in which the nonprofit will assume full ownership and stewardship of the property after Schoellkopf dies. Schoellkopf, who has contributed an endowment for the property's long-term maintenance, will reside there in the interim.

Public engagement is an important part of Hollister's mission. The garden opens to visitors Fridays and Saturdays from May through September. An annu-



Self-seeded forget-me-nots juxtaposed with clipped boxwoods exemplify the balance Hollister strikes between formal and wild.

al symposium with nationally renowned speakers will take place this September, for the seventh year running. Other programming ranges from gardening workshops to live music in the garden.

Asked why he chose to preserve the garden in perpetuity, Schoellkopf observes that his garden was a product of his creative vision, whereas the majority of public gardens in America are shaped by the vision of multiple professionals. "I think it's unusual and people seem to really respond. Americans don't make this kind of garden very often," he says, "but they love visiting Hollister."

Julia Polentes is an editorial intern for The American Gardener.



The colorful double border opens out to the sloping landscape beyond in this early morning view.

Planting for Pollinators

by Scott Aker



IN ADDITION to the benefits a garden provides us, it can serve as invaluable habitat for the creatures that share our planet—especially in urban and suburban areas where much native vegetation has been displaced by development. Pollinators—the animals that help many plants set seed and produce fruit by transferring pollen between flowers—play a vital role in the ecosystem, and declining numbers of some, such as our native bees and monarch butterflies, are legitimate causes for concern. It’s important to remember that although bees and butterflies tend to get most of the attention, they aren’t the only pollinators. Flies, beetles, wasps, hummingbirds, and even bats perform the same function. All have different life cycles and need pollen and nectar at different times and from different plants.

As gardeners, we can help sustain pollinators by including a wide variety of plants in our landscape. Even if your



Butterflies are not the only important pollinators. A leafcutter bee, top, helps pollinate *Baptisia* ‘Twilite’ and a ruby-throated hummingbird, above, performs the same service for cardinal flower (*Lobelia cardinalis*).

garden is already packed, there are usually marginal areas that will accommodate an additional pollinator plant or two. You can also scope out possible places in your neighborhood common areas and get permission from the authorities to establish pollinator plants there.

PROVIDE A YEAR-ROUND FOOD SUPPLY

Certain pollinators may be active well before the main growing season, during warm days in late winter and early spring. Early-bloomers such as Japanese apricot (*Prunus mume*), witch hazels (*Hamamelis* spp.), or redbuds (*Cercis* spp.) can provide a first meal for them. For the main season, look for plants that provide abundant pollen and nectar over a long period, and choose plants that flower at different times to provide food from spring through late fall. (See the sidebar for tips on flower selection.)

For nocturnal pollinators such as hawk moths, include plants that bloom late in the day, such as four-o’clocks (*Mirabilis jalapa*), moonflower vine (*Ipomoea alba*), and evening primrose (*Oenothera* spp.).

To attract migrating hummingbirds, skip the sugar-water-filled feeders and plant coral honeysuckle (*Lonicera sempervirens*), cross vine (*Bignonia capreolata*), cardinal flower (*Lobelia cardinalis*), or beebalm (*Monarda* spp.).

SUPPORT ALL LIFE STAGES

Many pollinators, such as butterflies, have a juvenile stage that also needs food. Unlike the adults, most caterpillars are very limited in what they can consume, so do some research to find out what to grow to support different butterfly populations. Milkweed (*Asclepias* spp.), for instance, is the only food that the larvae of monarch butterfly eat, while those of black swallowtail eat parsley and dill. Plan on growing enough host plants to accommodate both their needs and your own.

TIPS FOR FLOWER SELECTION

Pollinators prefer flowers that provide a lot of pollen and nectar in a small area so they don't need as much energy to move around and gather it. Three plant groups provide especially pollinator-friendly choices for your garden:



Purple coneflower



Queen Anne's lace

The **aster or daisy family** (Asteraceae) includes chrysanthemums (*Dendranthemum* spp.), asters, and purple coneflowers (*Echinacea* spp.); flowerheads are made of numerous ray and disk florets.

The **parsley or carrot family** (Apiaceae) includes parsley (*Petroselinum* spp.) and Queen Anne's lace (*Daucus carota*), and have flat to rounded umbels composed of hundreds of tiny flowers.

The **mint family** (Lamiaceae) includes hyssops (*Agastache* spp.) and false dragonheads (*Physostegia* spp.), which produce long spikes of nectar- and pollen-rich tubular flowers.

In general, double flowers bear little pollen and less nectar than their single counterparts. This is important to remember when selecting cultivars of aster family members such as chrysanthemum, purple coneflower, and Shasta daisy (*Leucanthemum xsuperbum*). —S.A.

Some important pollinators, such as syrphid flies, have carnivorous larvae. Syrphid fly larvae, which are small and sluglike, feed on aphids. You can help them out by tolerating some aphids in your garden.

CREATE A SAFE ENVIRONMENT

To truly assist pollinators, you must commit to providing them safe habitat. That means skipping toxic pesticides and accepting some plant damage from insects, mites, and diseases. If you have to use pesticides, opt for those with low toxicity and minimal residual action—such as horticultural oil and insecticidal soap. Avoid systemic pesticides, which remain in plants for long periods and may make their way into pollen and nectar; while these may not directly kill pollinators, they may weaken them and limit their reproductive capability.

Also avoid synthetic pyrethroids, which do not degrade quickly and are lethal for

bees and wasps. Natural pyrethrum, which is considered an organic pesticide, is still very toxic to bees and wasps.

SHELTER IS IMPORTANT, TOO

In addition to food, pollinators need homes. Some native bees and wasps nest in the hollow canes of dead blackberry branches or the tubular stems of reeds. You can leave the branches or stems in place, or cut and tie foot-long segments into bundles and hang them in trees. And because many of our native bees nest in the ground, go easy on tilling and mulching.

By growing a wide range of plants, adopting safe maintenance practices, and offering places for shelter, we make our gardens welcome to a diversity of pollinators—and we help create a healthier, more bountiful community for all. 🍀

Scott Aker is head of horticulture and education at the U.S. National Arboretum in Washington, D.C.

Gardening Q&A with Scott Aker

IS LACK OF LIGHT CAUSING YELLOWING LEAVES?

I noticed this spring that some of the leaves of my houseplants are turning yellow. We live in a solar home that is flooded with sunlight in winter and receives only bright indirect light in summer. Could the plants be suffering from lack of adequate light?

Lack of light usually causes spindly growth with more distance between individual leaves along the stem, and the leaves are usually larger and thinner than those grown in brighter conditions. In your case, the yellowing is probably due to other factors. Some of the lower leaves of many tropical houseplants turn yellow and are shed just before a growth spurt. It's a good idea to hold off on fertilizer and water less often until new growth appears.

TOO MUCH SUN FOR BLEEDING HEART

I recently planted a couple of bleeding hearts in my garden. One is in a location that never gets sun and is doing well. The leaves of the other one, which is in a spot that gets a couple of hours of sun in the late afternoon, have dried up and fallen off. Is it getting too much light?

Bleeding heart (*Lamprocapnos spectabilis*, formerly *Dicentra spectabilis*) is an herbaceous perennial that tends to suspend its growth in areas with warm summers. The plant in the shadier spot has retained its foliage because it is growing in a cooler microclimate in your garden, while the plant exposed to the hot late afternoon sun is going dormant; there is no need to move it to a shady location. Both will sprout next spring if they are otherwise healthy. —S.A.

Send your gardening questions to Scott Aker at saker@ahsgardening.org (please include your city and state with submissions).

Horticultural News and Research Important to American Gardeners

BEST GEUMS FOR MIDWESTERN GARDENS

The Chicago Botanic Garden in Glencoe, Illinois, recently released the results of its nine-year trial of geums (*Geum* spp.) Also known as avens, these rose family perennials bloom in a variety of colors for several weeks from spring into summer. They also have boldly textured foliage that stays evergreen to semi-evergreen in mild winters.

The trial evaluated 49 *Geum* taxa between 2007 and 2015 on traits such as flower production, attractiveness of foliage,



'Mai Tai'



'Totally Tangerine'

robustness of habit, and hardiness. Richard Hawke, the garden's plant evaluation manager, notes the majority of plants in the trial flourished in USDA Zone 5 conditions, despite the genus's reputation for being short-lived. The cultivars 'Mai Tai', 'Sangria', and 'Totally Tangerine', and the American native prairie smoke (*G. triflorum*) emerged as the best overall performers. For the complete report, visit www.chicagobotanic.org.



CATALOGING THE WORLD'S TREE SPECIES

The first authoritative catalog of all the world's known tree species—currently numbering 60,065—has been completed by the Botanic Gardens Conservation International (BGCI), an organization that represents botanic gardens around the world. This number represents about 20 percent of all higher plant species.

BGCI, based in London, England, spent two years reviewing published data and consulting with botanical institutions throughout the world to compile GlobalTreeSearch, a database of all known tree species along with their associated geographical distribution. "The global tree list represents the culmination of hundreds of years of botanical effort to catalog and understand the diversity of trees in the world," says Gerard T. Donnelly a member of BGCI's board of directors.

Among the notable findings from this project are that nearly half of all tree species belong to just 10 families; Brazil, Colombia, and Indonesia, respectively, are home to the most species; and almost 60 percent of all tree species are only found in a single country. Donnelly, who is also president and CEO of the Morton Arboretum in Lisle, Illinois, notes that "with this information, we are better able to set clear and realistic goals and prioritize conservation action."

To that end, GlobalTreeSearch forms a basis for the Global Tree Assessment, an international initiative to evaluate the conservation status of all tree species by 2020. The database, which is searchable by genus, species, and country, will be updated regularly as new species are discovered. It is accessible through BGCI's website at www.bgci.org/plant-conservation/globaltreesearch.

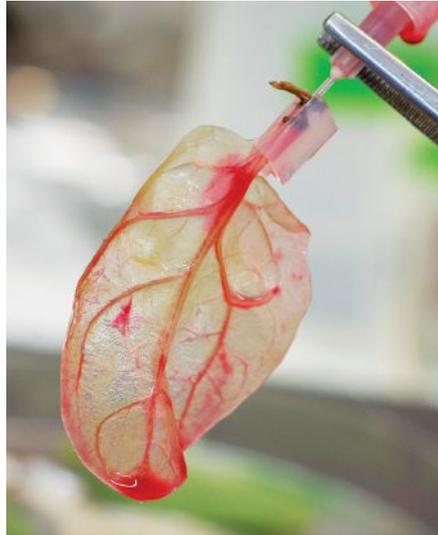
TOP LEFT: BRENT HORVATH, COURTESY OF CHICAGO BOTANIC GARDEN. BOTTOM LEFT: COURTESY OF WALTERS GARDENS. RIGHT: COURTESY OF FOREST AND KIM STARR

OLDEST PLANT FOSSIL DISCOVERED

Multicellular organisms appeared 400 million years earlier than previously thought, according to a study published in the online journal, *PLOS Biology*, in March. A team of researchers led by Stefan Bengtson, a scientist with the Swedish Museum of Natural History in Stockholm, came to this conclusion after analyzing new fossil evidence found in central India. Fossilized cells extracted from an approximately 1.6 billion-year-old layer of sedimentary rock appeared to contain similar photosynthetic structures to those found in modern day species of red algae. It was previously thought that the first multicellular organism emerged roughly 1.2 billion years ago. This discovery will help inform scientists' understanding of how fast mutations occur in the genome.

SPINACH'S LATEST CLAIM TO FAME

Already considered a nutritional "superfood," spinach may soon improve human health in a very different way. Scientists have recently opened the door to using spinach leaves to facilitate human tissue



Scientists successfully used spinach veins and human heart cells to transport bloodlike fluids.

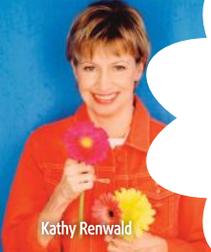
regeneration. Developing tissue requires a way to distribute blood to new cells through tiny capillaries, but current techniques in bioengineering fall short of manufacturing small enough blood vessels for this purpose. So a team of researchers from Worcester Polytechnic Institute in Massa-

chusetts, the University of Wisconsin in Madison, and Arkansas State University in Jonesboro looked to nature for help.

As it turns out, the structures of the vascular networks in plants and animals are strikingly similar, even though the mechanisms they use to transport fluids are quite different. In a study published in the May issue of the journal *Biomaterials*, the researchers report that they successfully used the veins of spinach leaves with human heart cells to transport fluids and microbeads roughly the size of blood cells. They also succeeded in seeding spinach veins with human cells that line blood vessels. These breakthroughs indicate that spinach leaves could be used to grow layers of healthy heart muscle after a heart attack, and could aid in the regeneration of countless other tissues.

The researchers hypothesize that different types of plant tissue could be adapted to tissue-specific vascular needs. The team is continuing to refine techniques for isolating plant veins so they can examine their use with different types of human cells.

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SMALLEST BEGONIA SPECIES DISCOVERED

During a field expedition in Peru last year, an international team of plant scientists discovered what turned out to be the smallest known species of begonia. This unique species, named *Begonia elachista*, only gets a little over an inch tall—and that's when it's in bloom. Unfortunately, this diminutive plant is considered critically endangered because it has only been found growing at the mouth of a single cave in a national park in Peru, according to a paper published in the February 2017 issue of the *European Journal of Taxonomy*. To make matters worse, park authorities plan to construct a trail to provide easier access to the cave for



Recently discovered in Peru, tiny *Begonia elachista* is critically endangered.

tourists, threatening this lone population with almost certain extinction.

Peter Moonlight, a researcher with the Royal Botanic Garden Edinburgh (RBGE) in Scotland, who helped discover the plant, is now working to save it, recognizing that begonias “play a critical role in tropical ecosystems and are of great importance as environmental indicator species. In many cases they also have a strong role to play in the horticultural sector and as a food source, medicine, or other products of benefit,” he says.

While efforts to conserve this critically endangered plant in the wild are in the works, the only collected specimen of this tiny begonia flowered at RBGE in February. Researchers there hope this will result in viable offspring in the near future.



Frederik Meijer Gardens will add a rooftop sculpture garden as part of a major expansion.

FREDERIK MEIJER GARDENS & SCULPTURE PARK PLANS MAJOR EXPANSION

Frederik Meijer Gardens & Sculpture Park in Grand Rapids, Michigan, recently announced a \$115 million expansion of its facilities on its 158-acre campus. This will include a LEED certified welcome center, a LEED certified learning center, a sculpture garden entry plaza, a rooftop sculpture garden, and more. Tod Williams Billie Tsien Architects, based in New York, has been selected to design the project. Construction will begin in fall of 2017 and last roughly four years.

Opened in 1995, the public garden's mission is to promote the enjoyment, understanding, and appreciation of gardens, sculpture, the natural environment, and the arts. The expansion project will “be an amazing expression of our mission never before imagined,” says the garden's president and CEO David Hooker. For more information, visit www.meijergardens.org.

SCOTT MEDAL FOR CHANTICLEER EXECUTIVE DIRECTOR R. WILLIAM THOMAS

The Scott Medal and Award from the Scott Arboretum of Swarthmore College in Swarthmore, Pennsylvania, is one of the top honors in the horticultural world. This year's recipient is R. William Thomas, currently the executive director of Chanticleer garden near Philadelphia, Pennsylvania. At Chanticleer, he has elevated this relatively young garden's prominence on a national and international stage by strengthening its educational and leadership programming. He authored, with other Chanticleer staff, *The Art of Gardening, Design Inspiration*

and *Innovative Planting Techniques from Chanticleer*, published in 2015.

Thomas's long horticultural career also encompasses a 26-year-tenure at Longwood Gardens in Kennett Square, Pennsylvania. Since 2006, Thomas has led Greater Philadelphia Gardens, a collaboration of over 30 gardens in the area, and he has been instru-



Scott Medal recipient R. William Thomas

mental in making the region “America's Garden Capital.” He has played leadership roles for the American Conifer Society, the American Public Gardens Association, and the Association for Garden Communicators. In 2015, he received the Professional Award from the American Horticultural Society in recognition of his efforts to advance public horticulture.

To learn more about the Scott Medal, visit www.scottarboretum.org.

News written by Editorial Intern Julia Polentes with Associate Editor Viveka Neveln.



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Recommendations for Your Gardening Library

Pretty Tough Plants

By the experts at Plant Select. Timber Press, Portland, OR, 2017. 256 pages. Publisher's price, softcover: \$24.95.

ANYONE LOOKING for drought-tolerant, beautiful plants will appreciate this book. And if, like me, you live in the Mountain States, the Great Basin, the Front Range, or anywhere else in the Rockies, *Pretty Tough Plants* should be required reading. As water becomes an increasingly precious resource in these areas, gardeners want tough but not invasive plants, so this book is a win-win-win. It profiles 135 plants that “not only look attractive in the landscape but require less maintenance and less

water, and are dependably hardy in a wide range of conditions.” Each plant in this book has met or exceeded Plant Select’s seven rigorous criteria during extensive trials. Plant Select is a highly regarded, collaborative group of breeders, plant hunters, nurserymen, and botanists formed in 1997. *Pretty Tough Plants* is an expanded follow-up to Plant Select’s *Durable Plants*, published in 2007, in that it reflects the organization’s full 20 years of plant trials and selections, in cooperation with the Denver Botanic Gardens and Colorado State University.

Divided by type, each plant is concisely described and shown in at least one photograph. You’ll also find cultural information, design suggestions, and native origins. I particularly enjoyed the section on petites—“well-adapted, smaller plants that have not yet been readily available to gardeners.” These include Scott’s sugarbowl (*Clematis scottii*) with its sweet, bell-like blue flowers that bloom for months and months. And there’s ‘Wallowa Mountains’, a lovely selection of mossy sandwort (*Arenaria* sp.), a drought-tolerant groundcover that forms a bright green carpet of mosslike foliage.

The full list of my new favorites is too long to cover here, but I was also pleased to see familiar plants such as ‘Blonde Ambition’ blue grama grass (*Bouteloua gracilis*), which has been growing in my Idaho garden for more than four years. It has survived two of the weirdest winters in recorded history, so it’s definitely a winner for me!

This is a must-have book for anyone making a garden in the intermountain west and other dry areas. Knowing which plants have the seal of approval of the Plant Select program makes me not only willing—but eager—to give them a try.

—Mary Ann Newcomer

Mary Ann Newcomer blogs at www.gardensofthewildwildwest.com.

Big Dreams, Small Garden

Marianne Willburn. Skyhorse Publishing, New York, NY, 2017. 204 pages. Publisher's price, softcover: \$17.99.

LESS THAN PERFECT describes the situations in which most of us garden. *Big Dreams, Small Garden* is about cultivating contentment despite limited resources and varied obstacles. In frank prose laced with humor, Marianne Willburn describes how to envision, create, care for, and enjoy a little piece of Eden now, no matter where we garden.

Willburn is no stranger to gardening challenges—the photographs of her first gardening spaces are a salve to the soul of anyone who has faced, or is now dealing with, similarly humble and uninspiring situations. She candidly shares how she had to grapple with her own negativity after economic difficulties forced a move from a home with a large garden to a smaller, run-down property. But by banishing unproductive garden envy and embracing the here-and-now, she not only discovered solutions to her problems but rekindled her gardening joy.

You won’t find fussy procedures or unnecessary details in this book. Instead, Willburn provides straightforward nuggets of garden design wisdom and simple guidelines for achieving extraordinary results, enhanced by instructive photographs. She walks readers through the garden-making process from sketching out a plan to efficiently carrying out that plan to enjoying the evolving masterpiece. Examples of creative solutions from other gardeners are scattered throughout the text to reinforce her own advice. She also includes tips from professional landscape and garden designers.

I was happy to see that Willburn thoroughly addresses garden maintenance—a reality often overlooked or downplayed in other gardening books. Her “seven hard truths about garden maintenance” will resonate with many gardeners, especially “there will never be a time when I am completely finished.” One idea, to cultivate the “illusion of neat,” advocates a practical approach that liberates gardeners from the tyranny of perfection.

Regardless of the size of your space or your skill level, this book will help you to confidently express your gardening vision. Willburn makes it plain that even if you don’t have a bottomless wallet, endless time, and acres of space, you still can make your most cherished gardening dreams come true.

—Mary S. Chadduck

Mary S. Chadduck is a horticulture specialist at the American Horticultural Society’s River Farm headquarters in Alexandria, Virginia.

GARDENER'S BOOKS

Food Gardening

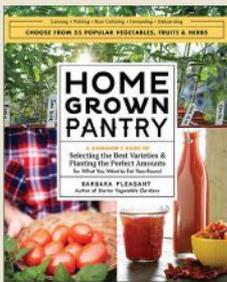
TO ME, growing edible plants is one of the most rewarding aspects of gardening. It's simple enough a child can—and should—do it, yet there's always something miraculous about coaxing food from the soil. And few things in life are as rewarding as eating what you've grown yourself. The following recently published books will help you produce and enjoy your own homegrown goodies.

The Food Lover's Garden (New Society Publishers, 2017, \$29.99) by Jenni Blackmore “traces the journey from the garden to the supper table.” It starts with some gardening basics, including materials, equipment, and soil preparation. Blackmore then describes a selection of easy-to-grow, highly productive vegetables, fruits, and herbs that “offer lots of scope in the kitchen.” Likewise, she gives an overview of cooking equipment, food preparation techniques, and preservation methods. Numerous recipes provide easy and delicious ways to make use of the crops discussed in the book.



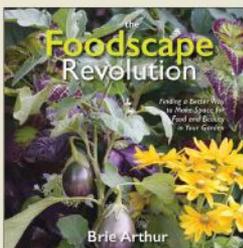
preservation methods. Numerous recipes provide easy and delicious ways to make use of the crops discussed in the book.

Homegrown Pantry (Storey Publishing, 2017, \$22.95) by Barbara Pleasant is for those who want their gardens' harvest to supplement their diets year round.

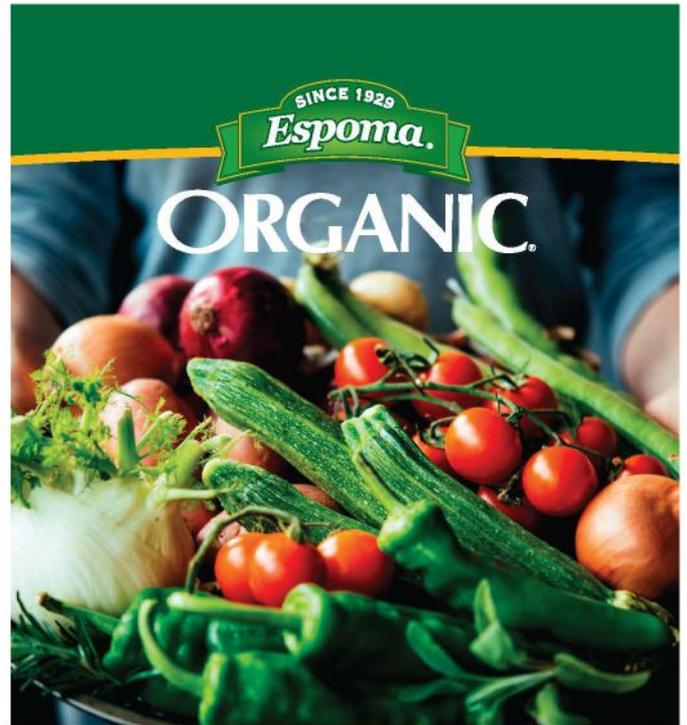


This book guides readers through the basics of various preservation methods such as canning, freezing, drying, and fermenting. Profiles of 55 garden staples include growing and harvesting information, variety recommendations, how much to grow per person, and how to preserve the crop with the methods described in the beginning of the book. Simple, time-tested recipes like pumpkin butter and pickled snap beans are included throughout.

The Foodscape Revolution by Brie Arthur (St. Lynn's Press, 2017, \$21.95) is all about the practice of integrating edible plants into an existing ornamental landscape. The book brims with ideas for where to add edibles around your yard and explains how to compose an ornamental framework of trees, shrubs, and grasses ideal for a foodscape. It also describes what to plant, from veggies and herbs to berries and grains. The final section includes harvesting, preserving, and preparation basics, along with a few recipes to whet your appetite.



—*Julia Polentes, Editorial Intern*



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Using Barriers and Scare Tactics to Avoid Pest Damage

by Rita Pelczar

IF YOU plant it, they will come. I'm talking about hungry garden pests that have a knack for devouring your tasty fruits and veggies just as they ripen—or reducing the leaves of your prized ornamental plants to something that resembles Swiss cheese. One of the best strategies I have found for avoiding pest damage is placing a physical barrier between pests and susceptible host plants. Another technique is to scare off or repel foragers before they do any damage. Here are several products that have worked well in my gardens.

RESTRICT ACCESS

If deer, squirrels, or birds have browsed on the fruit of your blueberry bushes in the past, the **Storm Proof Crop Cage** from Gardener's Supply Company (www.gardeners.com) offers a good solution to saving your crop. The cage consists of a sturdy aluminum frame and polyethylene netting that is attached with clips. The large version is over eight feet long, almost five feet wide, and nearly six feet tall. Two doors, secured by heavy-duty zippers, provide access. It's lightweight and easy to move once your crop has been harvested and can be used to protect a wide variety of crops. There is also a medium-sized model that is about five-feet square and has one door.

The **Tall Pest Control Pop-Up**, also from Gardener's Supply Company, keeps both critters and bugs away from your strawberries, blueberries, and vegetables. Broccoli is a magnet for cabbageworms in my garden, but this steel-framed, nylon-mesh-covered cage prevents adult moths from laying their eggs on my plants, ensuring perfect broccoli heads. The spring-loaded cage, which pops open when you unpack it, comes in two sizes: four feet wide and deep, and about eight feet by four feet;



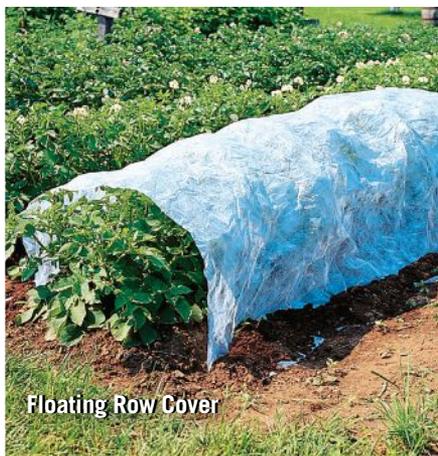
Storm Proof Crop Cage



Tall Pest Control Pop-Up



Easy Micromesh Tunnel



Floating Row Cover

both are four feet tall. Equipped with zippered and Velcro-secured openings and stakes for anchoring, the Pop-Ups fold flat for storage.

For shorter crops, the **Easy Micromesh Tunnel** from Gardener's Edge (www.gardenersedge.com) offers good protection from bunnies and bugs. It comes in two sizes: standard—18 inches wide and 12 inches high, and giant—23.6 inches wide and 18 inches tall. Both are nearly 10 feet long, so you can protect a good sowing of carrots, lettuce, spinach, radishes, or chard. The larger size also works well for cabbage, kale, and beans. The single-piece design features mesh with casings that house a series of steel hoops; slide the mesh up for easy harvesting. While the mesh provides some protection from wind and strong sun, air and water penetrate easily. The tunnel folds like an accordion for storage.

A **Floating Row Cover** is a lightweight spun-bonded fabric barrier that is laid over a frame or directly on top of a growing crop and secured at the lower edges with

soil, planks of wood, or pins. It's especially effective for deterring flying insects. Lee Valley's (www.leevalley.com) row cover is seven feet wide by 50 feet long. Other sizes are available from Gardener's Edge and Gardener's Supply Company. The material is easy to cut with scissors for shorter rows, but be sure to allow sufficient fabric to expand as the crop grows.

Slugs are among the most difficult pests to keep out of my gardens. **Corry's Slug & Snail Copper Tape Barrier** from Planet Natural (www.planetnatural.com) comes in a 15-foot roll that can be cut



to size with scissors and helps reduce the number of slugs that feed on your plants. While the sticky tape can be applied to a clean, dry surface, it is best to secure it along the top edge of raised beds with small tacks or staples.

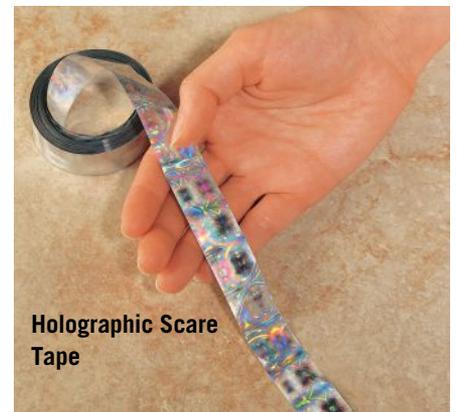
SCARE TACTICS

I don't relish scaring birds or squirrels, but when they descend on my fruit trees

and blueberries, I get tough. **Scare Eye Bird Deterrents** from Lee Valley are a pretty humane option. These shiny egg-shaped plastic discs are about five inches long and feature the imprint of a colorful "eye" that mimics that of a predator, but I think it's more often the moving reflective surface that does the scaring. Each disc has a ring at the top for hanging it on a branch and a breeze-catching fin on the back side to keep it moving.



Scare Eye Bird Deterrent



Holographic Scare Tape

Similarly, **Holographic Scare Tape**, also from Lee Valley, is a lightweight, inch-wide metalized plastic film that displays a rainbow of colors when it catches the sun. Strips that flutter around my blueberries keep most birds away. Each roll is 100 feet long, and the film can be cut with scissors.

All of the above barriers and deterrents are effective in reducing pest damage without resorting to toxic chemicals. Be sure to have them in place before your pests arrive.

Rita Pelczar is a contributing editor for The American Gardener.



REGIONAL HAPPENINGS

Horticultural Events from Around the Country

NORTHEAST

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

RAP MAY 27–JUNE 4. **Rhododendron Festival.** Walking tours and pruning demonstrations. Heritage Museum and Gardens. Sandwich, MA. (508) 888-3300. www.heritagemuseumsandgardens.org.

RAP MAY 30. **Tending the Perennial Garden in Late Spring.** Talk. Meryspring Nature Center. Camden, ME. (207) 236-2239. www.meryspring.org.

RAP JUNE 9 & 10. **Spring Plant Sale.** Cornell Botanic Gardens. Ithaca, NY. (607) 255-2400. www.cornellbotanicgardens.org.

RAP JUNE 10. **Growing Your Own Food.** Workshop. Coastal Maine Botanical Gardens. Boothbay, ME. (207) 633-4333. www.mainegardens.org.

RAP JUNE 11. **America's Romance with the English Garden.** Talk. The Fells Historic Estate & Gardens. Newbury, NH. (603) 763-4789. www.thefells.org.

RAP JUNE 12. **Promoting Plant Health Through Proper Pruning.** Class. Landis Arboretum. Esperance, NY. (518) 589-3908. www.landisarboretum.org.

RAP JUNE 17. **Plant Propagation Workshop.** Polly Hill Arboretum. West Tisbury, MA. (508) 693-9426. www.pollyhillarboretum.org.

RAP JUNE 17–AUG. 6. **Coleus & Color.** Exhibit. Buffalo and Erie County Botanical Gardens. Buffalo, NY. (716) 827-1584. www.buffalogardens.com.

JUNE 23–25. **Newport Flower Show.** Preservation Society of Newport County. Rosecliff. Newport, RI. (401) 847-1000. www.newportmansions.org.

Looking ahead

RAP JULY 9. **Great Native Plants for Containers.** Workshop. Brooklyn Botanic Garden. Brooklyn, NY. (718) 623-7200. www.bbg.org.

RAP JULY 11. **Best Natives for the Summer Garden.** Class. Garden in the Woods. New England Wild Flower Society. Wellesley, MA. (508) 877-7630. www.newenglandwild.org.

Botanical gardens and arboreta that participate in AHS's Reciprocal Admissions Program are identified with the **RAP** symbol. AHS members showing a valid membership card are eligible for free admission to the garden or other benefits. Special events may not be included; contact the host site for details or visit www.ahsgardening.org/rap.

MID-ATLANTIC

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

RAP MAY 27–JUNE 4. **Art Blooms: Satsuki Azalea Bonsai.** Exhibit. United States National Arboretum and National Bonsai and Penjing Museum. Washington, D.C. (202) 245-4523. www.usna.usda.gov.

RAP JUNE 2. **Make Your Shade Shine.** Talk. Green Spring Gardens. Alexandria, VA. (703) 642-5173. www.fairfaxcounty.gov.

RAP JUNE 3–AUG. 31. **Dave Rogers' BIG BUGS.** Exhibit and programs. Tyler Arboretum, Media PA. (610) 566-9134. www.tylerarboretum.org.

RAP JUNE 10. **Deer Resistant Plants.** Talk. Rutgers Gardens. New Brunswick, NJ. (732) 932-8451. www.rutgers.edu.

RAP JUNE 10. **Woody Plant Propagation Workshop.** Willowood Arboretum. The Friends of the Frelinghuysen Arboretum. Morristown, NJ. (973) 326-7603. www.arboretumfriends.org.

RAP JUNE 11. **Beginner's Guide to Plant Identification.** Class. The West Virginia Botanic Garden. Morgantown, WV. (304) 322-3093. www.wvbg.org.

RAP JUNE 17. **Richmond Daylily Society Show and Sale.** Lewis Ginter Botanical Garden. Richmond, VA. (804) 262-9887. www.lewisginter.org.

RAP JUNE 28. **Edible Petals!** Workshop. Reeves-Reed Arboretum. Summit, NJ. (908) 273-8787. www.reeves-reedarboretum.org.

Looking ahead

RAP JULY 14. **Planting Your Fall Harvest.** Lecture. Goodell Gardens & Homestead. (814) 734-6699. Edinboro, PA. www.goodellgardens.org.

SOUTHEAST

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

RAP JUNE 3. **The Botanical Lost World—Bibb County Glades & Cahaba Lilies.** Class and trip. Birmingham Botanical Gardens. Birmingham, AL. (205) 414-2950. www.bbgardens.org.

RAP JUNE 3. **Chattahoochee Valley Daylily Festival.** Columbus Botanical Garden. Columbus, GA. (706) 327-8400. www.columbusbotanicalgarden.org.

JUNE 9–18. **Mackinac Island Lilac Festival.** Mackinac Island Tourism Bureau. Mackinac Island, MI. (906) 847-3783. www.mackinacisland.org.

RAP JUNE 10. **Tree Identification.** Class. South Carolina Botanical Garden. Clemson, SC. (864) 656-2836. www.clemson.edu/scbg.

RAP JUNE 15. **Plant Families.** Discussion. Dixon Gallery and Gardens. Memphis, TN. (901) 761-5250. www.dixon.org.

RAP JUNE 17. **Herbaceous Perennials Propagation.** Class and demonstration. JC Raulston Arboretum at NC State University. Raleigh, NC. (919) 515-3132. jcra.ncsu.edu.

RAP JUNE 17. **Waterlily Festival.** McKee Botanical Garden. Vero Beach, FL. (772) 794-0601. www.mckeegarden.org.

RAP JUNE 19–25. **Dazzling Daylily Festival.** Western Kentucky Botanical Garden. Owensboro, KY. (270) 852-8925. www.wkbg.org.

NORTH CENTRAL

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

RAP MAY 25. **Native Prairie Plants to Attract Pollinators.** Class. Green Bay Botanical Garden. Green Bay, WI. (902) 490-9457. www.gbbg.org.

RAP MAY 26. **Tall Grass Prairie Walk.** Fernwood Botanical Garden & Nature Preserve. Niles, MI. (269) 695-6491. www.fernwoodbotanical.org.

RAP MAY 27 & 28. **Iris Show.** Frederik Meijer Gardens & Sculpture Park. Grand Rapids, MI. (888) 957-1580. www.meijergardens.org.

RAP JUNE 12. **Timing is Everything: The Impacts of Changes in Phenology.** Symposium. Regenstein School of the Chicago Botanic Garden. Glencoe, IL. (847) 835-5440. www.chicagobotanic.org.

RAP JUNE 24. **Hardscaping Around Your House.** Class. Greater Des Moines Botanical Garden. Des Moines, IA. (515) 323-6290. www.dmbotanicalgarden.com.

RAP JUNE 24. **Pollinator Fest.** Reiman Gardens at Iowa State University. Ames, IA. (515) 294-2710. www.reimangardens.com.

RAP JUNE 25. **Wildflower Propagation Tips and Tricks.** Class. Cox Arboretum Metropark. Miamisburg, OH. (937) 275-7275. www.metroparks.org.

Looking ahead

RAP JULY 8. **Plant Selection for a Changing Climate.** Class. Minnesota Landscape Arboretum. Chaska, MN. (952) 443-1400. www.arboretum.umn.edu.

JULY 14–16. **Conference and Campout.** Seed Savers Exchange. Decorah, IA. (563) 382-5990. www.seedsavers.org.

JULY 15–18. **Cultivate!** Conference and trade show. Columbus, OH. (866) 805-5725. www.cultivate17.org.

JULY 19–21. **2017 Convention.** The Gar-

Celebrating the Best of Brazil at the Chicago Botanic Garden

FROM JUNE 15 to October 15, Chicago Botanic Garden (CBG) in Glencoe, Illinois, will host “Brazil in the Garden,” a celebration of the South American



Bromeliad at Chicago Botanic Garden

country’s contributions to culture, conservation, and horticulture. A variety of special events from gardening lectures to cooking demonstrations and musical performances are scheduled throughout the summer. There also will be an indoor exhibition featuring the artwork of the late Brazilian landscape architect Roberto Burle Marx, comprising original paintings, sketches, hand-painted tapestries, and woven textiles.

Marx was known for his modernist designs that utilize both architectural and colorful foliage in landscapes. In reflection of this, visitors can expect a palette of plants throughout CBG that aren’t your typical summer annuals, says Andrew Bunting, CBG’s assistant director and director of plant collections. Beds and containers will brim with “cycads and palms, many species and cultivars of bromeliads—truly tropical plants,” he notes.

For more information about Brazil in the Garden, visit www.chicagobotanic.org. CBG participates in the American Horticultural Society Reciprocal Admissions Program; AHS members showing a current member card are eligible for free parking. ♡

—Julia Polentes, Editorial Intern

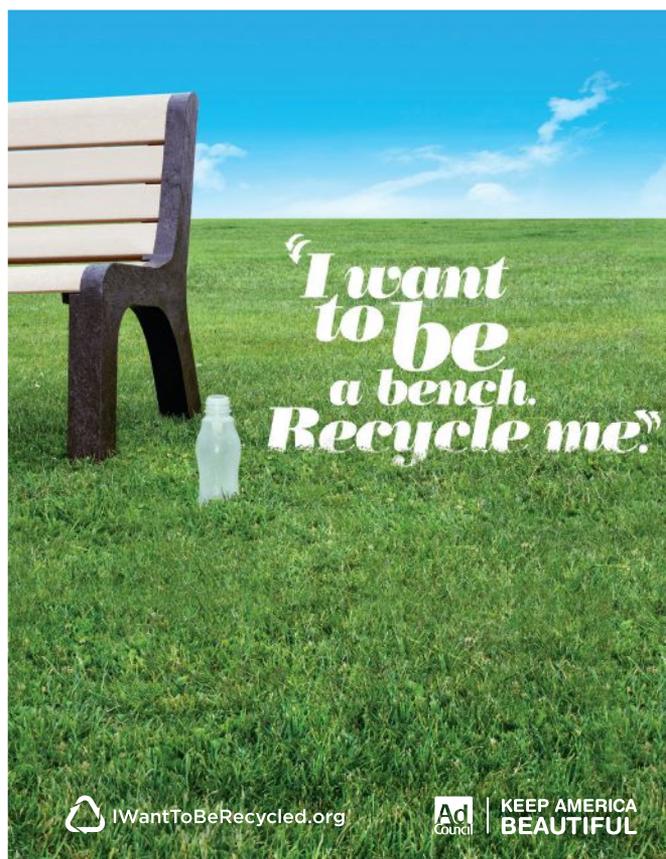
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SOUTH CENTRAL

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

RAP JUNE 3. **North Texas Daylily Society Flower Show.** Fort Worth Botanic Garden. Fort Worth, TX. (817) 392-5548. www.fwb.org.

RAP JUNE 3–11. **The Very Hungry Caterpillar.** Children's garden festival. Myriad Botanical Gardens. Oklahoma City, OK. (405) 445-7079. www.myriadgardens.org.

RAP JUNE 5. **Weed Control for Lawns & Landscapes.** Lecture. LSU AgCenter Botanic Gardens at Burden. Baton Rouge, LA. (225) 763-3990. www.burdenhorticulture.society.com.

RAP JUNE 8. **Gardening for Pollinators.** Workshop. Garvan Woodland Gardens. Hot Springs National Park, AR. (800) 366-4664. www.garvangardens.org.

RAP JUNE 11. **St. Louis Garden Tour.** Missouri Botanical Garden. St. Louis, MO. (314) 577-5118. www.missouribotanicalgarden.org.

RAP JUNE 24. **How Do I...Know if my Garden is "Water Wise"?** Class. Texas Discovery Gardens. Dallas, TX. (214) 428-7476. www.texasdiscoverygardens.org.

RAP JUNE 24. **Summer Care for Native Plants.** Class. Lady Bird Johnson Wildflower Center. Austin, TX. (512) 232-0200. www.wildflower.org.

Looking ahead

RAP JULY 22. **Native Plant School: The Edible Landscape.** Seminar. Powell Gardens. Kingsville, MO. (816) 697-2600. www.powellgardens.org.

JULY 23–28. **Perennial Plant Symposium.** Perennial Plant Association. Doubletree by Hilton Hotel Denver, Denver, CO. (614) 771-8431. ppadenver.com.

SOUTHWEST

AZ, CO, NM, UT

RAP MAY 25. **Exuberant Summer Vegetable Gardens.** Class. Desert Botanical Garden. Phoenix, AZ. (480) 941-1225. www.learn.dbg.org.

JUNE 2. **Pioneers of American Botany.** Class. Tucson Botanical Gardens. Tucson, AZ. (520) 326-9686. www.tucsonbotanical.org.

RAP JUNE 12. **Herbology 101.** Class. Red Butte Garden. (801) 585-0556. Salt Lake City, UT. www.redbuttegarden.org.

RAP JUNE 21. **Fairy Gardening.** Workshop. Ashton Gardens at Thanksgiving Point. Lehi, UT. (801) 768-2300. www.thanksgivingpoint.org.

RAP JUNE 24. **Garden Maintenance—How to be a Good Steward.** Class. Santa Fe Botanical Garden. Santa Fe, NM. (505) 471-9103. www.santafebotanicalgarden.org.

Looking ahead

RAP JULY 12. **Building Backyard Greenhouses.** Class. The Gardens on Spring Creek. Fort Collins, CO. (970) 416-2486. www.fcgov.com/gardens.

RAP JULY 15. **Lavender Festival.** Denver Botanic Gardens. Denver, CO. (720) 865-3500. www.botanicgardens.org.

WEST COAST

CA, HI, NV

RAP MAY 27. **Palm, Cycad, Bamboo and Tropical Plant Sale.** San Diego Botanic Garden. Encinitas, CA. (760) 436-3036. www.sdbgarden.org.



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JUNE 2–JULY 4. **San Diego County Fair Garden Show.** Del Mar Fairgrounds. Del Mar, CA. (858) 755-1161. www.sdfair.com.

JUNE 3. **Annual Plant Sale.** Wilbur D. May Arboretum and Botanical Garden. Reno, NV. (775) 785-4153. www.mayarboretum.society.org.

RAP JUNE 3. **Camellia Care Walk and Demonstration.** Descanso Gardens. La Cañada Flintridge, CA. (818) 949-4200. www.descansogardens.org.

RAP JUNE 3. **Sick Plant Clinic.** University of California Botanical Garden at Berkeley. Berkeley, CA. (510) 643-2755. www.events.berkeley.edu.

JUNE 3. **Urban Composting.** Class. Garden for the Environment. San Francisco, CA. (415) 558-8246. www.gardenfortheenvironment.org.

RAP JUNE 10. **Create Your Own Bonsai.** Class. Santa Barbara Botanic Garden. Santa Barbara, CA. (805) 682-4726. www.sbbg.org.

RAP JUNE 11. **Ueki: Pruning of the Black Pines.** Class. Earl Burns Miller Japanese Garden. Long Beach, CA. (562) 985-8885. web.csulb.edu.

NORTHWEST

AK, ID, MT, OR, WA, WY

RAP JUNE 9–11. **Habitat Plant Sale.** Kruckeberg Botanic Garden. Shoreline, WA. (206) 546-1281. www.kruckeberg.org.

RAP JUNE 11. **Private Gardens Tour.** Idaho Botanical Garden. Boise, ID. (208) 343-8674. www.idahobotanicalgarden.org.

JUNE 14. **Neurotic Sublime.** Landscape architecture lecture. Center for Urban Horticulture. Northwest Horticultural Society. Seattle, WA. (206) 780-8172. www.northwesthort.org.

JUNE 14–20. **Master Naturalist Course.** Montana Natural History Center. Missoula, MT. (406) 327-0405. www.montanaturalist.org.

RAP JUNE 21. **Peonies.** Workshop. Alaska Botanical Garden. Anchorage, AK. (907) 770-3692. www.alaskabg.org.

RAP JUNE 29. **More Conifer Pests and Diseases.** Class and field study. Washington Park Arboretum. Seattle, WA. (206) 325-4510. www.arboretumfoundation.org.

Looking ahead

JULY 10-14. **International Master Gardener Conference.** Oregon Convention Center.

Portland, OR. (541) 737-5175. blogs.oregonstate.edu/2017imgc.

AHS JULY 12–15. **National Children & Youth Garden Symposium.** American Horticultural Society. Vancouver, WA. (703) 768-5700. www.ahsgardening.org/ncygs.

RAP JULY 19. **Gardening in Small Urban Spaces.** Class. Bellevue Botanical Garden. Bellevue, WA. (425) 451-3755. www.bellevuebotanical.org.

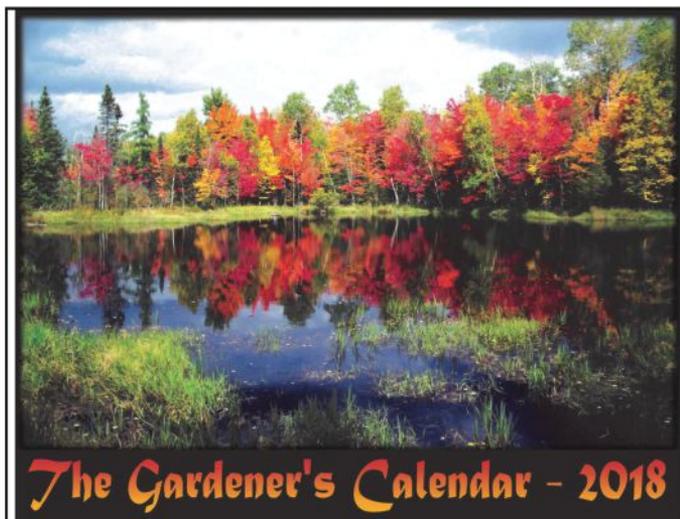
CANADA

MAY 24–29. **Apple Blossom Festival.** Kentville, NS. (902) 678-8322. www.appleblossom.com.

RAP JUNE 10 & 11. **North Rosedale & Moore Park.** Tour. Toronto Botanical Garden. Toronto, ON. (416) 397-1483. www.torontobotanicalgarden.ca.

JUNE 15–20. **Waterton Wildflower Festival.** Waterton Park, AB. (877) 780-1998. www.watertonwildflowers.com.

JUNE 25. **Grow Your Own Cut Flower Garden.** Workshop. Horticultural Centre of the Pacific. Victoria, BC. (250) 479-6162. www.hcp.ca.



The Gardener's Calendar - 2018

2018 "Gardeners" Calendar

One of the benefits that TGOA/MGCA offers its members is the opportunity for TGOA/MGCA and AHS members to participate in our annual photography contest. From these entries, photos are chosen for our annual calendar. We encourage all men and women to become a member of TGOA/MGCA and enjoy all the benefits of a worthwhile organization. For more information about TGOA/MGCA or to order calendars for \$7.00 **postpaid**, please call or email:

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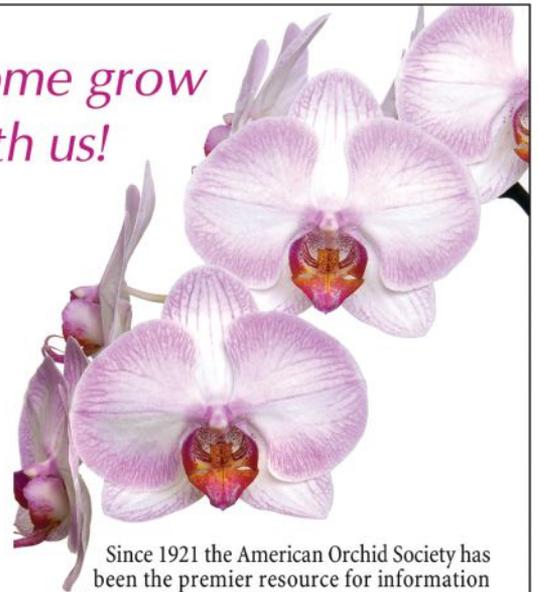
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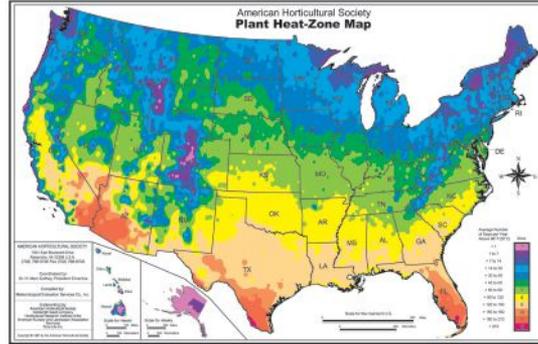
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PRONUNCIATIONS AND PLANTING ZONES



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. USDA Zones listed are still aligned with the 1990 version of the USDA's map.



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.

- Andropogon glomeratus*** an-dro-PO-gon glom-ur-AY-tus
(USDA Hardiness Zones 5–10, AHS Heat Zones 10–1)
- A. ternarius*** A. tur-NAR-ee-us (5–10, 10–1)
- Arundinaria gigantea*** ah-run-dih-NAIR-ee-uh jy-GAN-tee-uh (6–10, 10–5)
- Bignonia capreolata*** big-NO-nee-uh kap-ree-o-LAY-tuh (5–9, 9–1)
- Bouteloua gracilis*** boo-teh-LOO-uh GRASS-ih-liss (3–10, 10–1)
- Chasmanthium latifolium*** chas-MAN-thee-um lat-ih-FO-lee-um (4–9, 9–1)
- Cladrastis kentukea*** kla-DRAS-tis ken-TUK-ee-uh (4–8, 8–3)
- Clematis scottii*** KLEM-uh-tiss SKOT-tee-eye (4–7, 7–3)
- Daucus carota*** DAW-kus kah-RO-tuh (0–0, 8–1)
- Deschampsia cespitosa*** deh-SHAMP-see-uh sez-pih-TOH-suh (5–9, 9–1)
- Elymus hystrix*** EL-ee-mus HISS-triks (3–9, 9–1)
- Euphorbia griffithii*** yew-FOR-bee-ah grif-FITH-ee-eye (4–9, 9–4)
- Geum rivale*** JEE-um rih-VAY-lee (2–7, 7–2)
- G. triflorum*** G. try-FLOR-um (3–7, 4–8)
- Ipomoea alba*** ih-po-ME-uh AL-buh (10–11, 12–5)
- Lamprocapnos spectabilis*** lam-pro-KAP-nos spek-TAH-bih-liss (3–9, 9–1)
- Leucanthemum ×superbum*** loo-KAN-theh-mum soo-PUR-bum (4–8, 8–1)
- Lobelia cardinalis*** lo-BEEL-yuh kar-dih-NAL-iss (2–8, 8–1)
- Lonicera sempervirens*** lah-NISS-er-uh sem-pur-VY-renz (4–9, 9–1)
- Mirabilis jalapa*** mih-RAB-ih-liss jah-LAP-ah (9–11, 12–1)
- Muhlenbergia capillaris*** mew-len-BUR-jee-uh kap-ih-LAIR-iss (5–9, 10–3)
- M. lindheimeri*** M. lind-HY-mur-eye (6–10, 10–4)
- Myosotis sylvatica*** my-o-SO-tiss sil-VAT-ih-kuh (5–9, 9–5)
- Nasella tenuissima*** nah-SEL-luh ten-yew-ISS-ih-muh (7–10, 10–4)
- Panicum amarum*** PAN-ih-kum ah-MAR-um (5–10, 10–5)
- P. virgatum*** P. veer-GAY-tum (4–9, 9–1)
- Phaseolus vulgaris*** fas-see-O-luss vul-GAIR-iss (0–0, 12–1)
- Phlox ×arendsii*** FLOKS ah-REnz-ee-eye (3–9, 8–1)
- P. divaricata*** P. dih-vair-ih-KAY-tuh (3–9, 8–1)
- P. paniculata*** P. pan-ik-yew-LAY-tuh (4–8, 8–1)
- Prunus mume*** PREW-nus MOO-may (6–8, 8–6)
- Saccharum alopecuroides*** sak-KAH-rum al-o-pek-yew-ROY-deez (6–9, 9–6)
- S. brevibarbe*** S. breh-vih-BARB-ee (6–9, 9–6)
- S. giganteum*** S. jy-GAN-tee-um (6–9, 9–5)
- Schizachyrium scoparium*** skits-ah-KEER-ee-um sko-PAR-ee-um (3–8, 8–1)
- Sorghastrum nutans*** sor-GASS-trum NOO-tanz (4–9, 9–1)
- Sporobolus heterolepis*** spor-OB-o-lus het-ur-o-LEP-iss (3–8, 9–2)

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@ahsgardening.org.

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Native Beauty: American Yellowwood

by Martha Swiss

AMERICAN YELLOWWOOD (*Cladrastis kentukea*, USDA Hardiness Zones 4–8, AHS Heat Zones 8–3) is a native tree that has it all going on—beauty, medium size, and the ability to flourish nearly anywhere. If I could plant only one shade tree in my garden, it would probably be a yellowwood.

Named for the jaundiced hue of its freshly cut wood, yellowwood is a deciduous tree native primarily to upland areas of Tennessee, Kentucky, and northern Alabama, although isolated stands occur as far north as Illinois and west to the Ozarks. Relatively scarce in the wild, where its preferred habitats are hillsides, river valleys, and limestone cliffs, it is the sole American representative of a small genus whose other members are from eastern Asia. (For more information, see “The American Yellowwood” by Susan Sand in the April 1992 issue of *American Horticulturist*, linked from this issue on the American Horticultural Society’s website at www.absgardening.org.)

MULTI-SEASONAL INTEREST

Few other trees grace the garden with comparable gifts for every season. Yellowwood’s pealike flowers are a dead giveaway that the tree is a member of the legume family (Fabaceae). The sweet-smelling white blossoms are densely clustered in eight- to 14-inch-long panicles that cascade in a lacy, ethereal haze against the fresh yellow-green leaves in late April to May. Don’t expect instant gratification—the tree has to be about 12 to 18 feet tall before blooming, and it only flowers profusely every couple of years—but the display is well worth the wait. A



Yellowwood’s fragrant white spring flowers don’t bloom every year but are worth the wait.

pink-flowered selection called ‘Rosea’ (sometimes listed as ‘Perkins Pink’) is also available. Blooms are followed in fall by flattish, light brown seedpods.

Even without flowers, the tree has many other noteworthy attributes. Its pinnately compound leaves don’t miss a beat all summer, and the yellow fall leaf color ranges from respectable to spectacular. After the leaves drop, the architectural form of the tree’s trunk and branches, robed in smooth, light-gray bark, comes to the fore all winter.

The tree’s overall habit often starts out vasselike, with graceful, upright

branches diverging from a single point low on the trunk, but becomes rounded with maturity. It grows at a moderate rate to 30 to 50 feet tall with a slightly wider spread, so be sure to factor that in when selecting a planting site.

PLANTING AND MAINTENANCE

Yellowwood is fairly adaptable in cultivation. It thrives in ordinary, free-draining garden soil with a pH on either side of neutral. It can be grown successfully in part shade, but flowering is best in full sun. Water regularly—and deeply—for the first couple of years until it is well established; after that yellowwood is relatively drought tolerant.

Yellowwood’s tendency to fork into multiple stems low on the main trunk can create a weak structure that is prone to breakage. To prevent this, shape the tree at a young age by selecting one primary leader with branches spaced evenly. Major pruning is best done in fall to midwinter because the tree bleeds sap heavily while in active growth.

Yellowwood is not typically prone to insect or disease problems, but its bark is on the thin side, so protect the base from damage caused by careless mowing and weed trimming.

While its moderate size and slow growth rate make it useful for most landscapes, yellowwood has the presence of a larger shade tree. Spring seems extra special when a yellowwood blooms, but truly, it’s a winner in any season.

Martha Swiss is a garden writer, designer, and speaker in Pittsburgh, Pennsylvania.

Sources

Forestfarm at Pacifica, Williams, OR.
www.forestfarm.com
Woodlanders, Inc., Aiken, SC.
www.woodlanders.net

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