The American Gardener
The Magazine of the American Horticultural Society
July / August 2016

bold, beautiful
Bananas

Architectural Annuals
Plant an Ice Cream-Inspired Garden
Tips for Mixing and Matching Perennials
HARTLEY BOTANIC
WITH PRIDE SINCE 1938

THE FINEST GREENHOUSES
MONEY CAN BUY

• Handmade in Greenfield, England • Victorian Range from $25,000

To enjoy a book of greenhouses please call or click 781 933 1993
www.hartley-botanic.com - Quoting Ref: AGUS

NOTHING ELSE IS A HARTLEY
Gifts by Will or Trust benefit you and the American Horticultural Society.

For more information, please contact us at development@ahs.org or (703) 768-5700.

**Board of Directors**

**CHAIR**
Amy Bolton  Fall Church, Virginia

**FIRST VICE CHAIRMAN**
Jane Diamantis  McDonald, Tennessee

**SECOND VICE CHAIRMAN**
Mary Pat Matheson  Atlanta, Georgia

**SECRETARY**
Nancy Hargroves  Manakin Sabot, Virginia

**TREASURER**
J. Landon Reeve, IV  Woodbine, Maryland

**IMMEDIATE PAST CHAIR**
Harry A. Rissetto, Esq.  Fall Church, Virginia

**EXECUTIVE COMMITTEE**
Marcia Zech  Mirren Island, Washington

Skipp Calvert  Alexandria, Virginia  •  Tim Condon  Dubuque, Iowa  •  Laura Dowling  Alexandria, Virginia  •  Gay Estes  Houston, Texas  •  Tony Hayes  Woodinville, Washington  •  Tom Johnson  Washington, D.C.

Louis B. Lynn  Columbia, South Carolina  •  Rachel Muis  Asheville, North Carolina  •  Nancy Ross  Englewood, Florida  •  Holly Shimizu  Glen Echo, Maryland  •  Ed Snodgrass  Street, Maryland  •  Erich Veitenheimer  Alexandria, Virginia

**EXECUTIVE DIRECTOR**
Tom Underwood

**PRESIDENT EMERITUS**
Katy Mosi Warner

**President’s Council**
The President’s Council is comprised of dedicated members whose annual support makes many of the Society’s programs possible, from youth gardening activities to horticultural awards programs.

**FOUNDER’S CIRCLE** ($15,000+)
Mr. and Mrs. George Diamantis  •  Ms. Katy Mosi Warner  •  Mr. and Mrs. Klaus Zech

**LIBERTY HYDE BAILEY CIRCLE** ($10,000-$24,999)
Mr. and Mrs. Richard Davison  •  Mrs. Elizabeth C. Dudley  •  Mr. and Mrs. Neil Morris  •  Mr. and Mrs. Harry A. Rissetto, Esq.

**HAUPT CIRCLE** ($5,000-$9,999)
Ms. Amy Bolton and Mr. Philip Schoene  •  Mr. and Mrs. Leonard Calvert, III  •  Mr. James R. Cargill, II  •  Mr. and Mrs. Timothy Condon  •  Mr. Joseph Errington and Mr. William Pullen  •  Mrs. Catherine M. Hayes  •  Mr. and Mrs. Thomas E. Johnson  •  Mr. Mark Olson

**SUSTAINERS’ CIRCLE** ($2,500-$4,999)
Mrs. Leslie A. Ariaal  •  Mrs. Lynda A. Bachman  •  Mr. and Mrs. Julie Ernst  •  Mr. and Mrs. Carl Estes  •  Mr. and Mrs. Joel Goldsmith  •  Mr. Thomas Gibian and Mrs. Christina Grady  •  Dr. and Mrs. William O. Hargrove  •  Mr. Erika Huddleston  •  Dr. and Mrs. Louis B. Lynn  •  Mrs. Karen H. Meyer  •  Mr. and Mrs. Frank Nicolai  •  Mr. David D. Parrish  •  Mr. J. Landon Reeve, IV  •  Dr. Erich E. Veitenheimer and Mr. Andrew Cariazo  •  Ms. Katherine J. Ward

**COUNCIL MEMBER’S CIRCLE** ($500-$1,999)
Mr. and Mrs. Robert Calvert  •  Mr. and Mrs. Mary T. Carnes  •  Mr. and Mrs. Michael Braddock  •  Mr. and Mrs. Taylor Burke, III  •  Mr. and Mrs. Allen W. Bush  •  Mrs. Barbara L. Curt  •  Mr. and Mrs. Andy Daniel  •  Dr. Karen Emmeran  •  Mr. and Mrs. Herbert F. Hargroves  •  Mrs. Martha Harris  •  Mr. and Mrs. Alfred Heiler  •  Mr. and Mrs. Paul A. Hess  •  Mrs. Mary Pat Hargroves  •  Mr. and Mrs. Albert Huddleston  •  Mr. and Mrs. Andy Daniel  •  Dr. Karen Emmeran  •  Mr. and Mrs. Herbert F. Hargroves  •  Mrs. Martha Harris  •  Mr. and Mrs. Alfred Heiler  •  Mr. and Mrs. Paul A. Hess  •  Mrs. Mary Pat Hargroves  •  Mr. and Mrs. Albert Huddleston  •  Mr. and Mrs. Andy Daniel  •  Dr. Karen Emmeran  •  Mr. and Mrs. Herbert F. Hargroves  •  Mrs. Martha Harris  •  Mr. and Mrs. Alfred Heiler  •  Mr. and Mrs. Paul A. Hess  •  Mrs. Mary Pat Hargroves  •  Mr. and Mrs. Albert Huddleston

**HONORARY PRESIDENT’S COUNCIL** (in memoriam)
Ms. Louise Fruehling  •  Mr. and Mrs. Robert D. Volk  •  Mr. and Mrs. Charles F. Walton  •  Ms. Elizabeth M. Wehrle  •  Mr. and Mrs. Bruce Miller  •  Ms. Wilma L. Pickard

**Corporate Members**
Bonnie Plants  •  The Care of Trees  •  Chapel Valley Landscape Company  •  Corona, Inc.  •  The Espoma Company  •  Osmocote  •  OXO

**Horticultural Partners**
America In Bloom  •  Bellingrath Gardens & Home  •  The Colonial Williamsburg Foundation  •  Cox Arboretum Metropark  •  Friends of Fellows Riverside Gardens  •  The Gardeners of America/Men’s Garden Clubs of America  •  The Omni Homestead  •  Inniswood Garden Society  •  Wegerzyn Gardens Foundation
contents
Volume 93, Number 4 - July / August 2016

FEATURES

14 ARCHITECTURAL ANNUALS
BY RAND B. LEE
These statuesque plants will make a dramatic statement in your summer garden.

20 RIZ REYES: RISING STAR
BY MARTY WINGATE
A young plantsman is making waves in the horticultural hotbed of the Pacific Northwest.

25 "ICE CREAM" PLANTS
BY KRIS WETHERBEE
Turn your summer garden into an ice-cream parlor by adding plants that offer vanilla, chocolate, and strawberry scents.

30 BOLD AND BEAUTIFUL BANANAS
BY JAMES W. WADDIK
Add tropical flair to your garden with bananas and their relatives.

36 PERENNIAL MATCHMAKING
BY NANCY J. ONDRA
Being a successful perennial matchmaker involves more than simply selecting flowers that might look pretty together.

ON THE COVER. With its bold, colorful leaves, 'Maurelii' banana stars in this mixed container planting in Vanessa Gardner Nagel's garden in Vancouver, Washington. Photograph by Janet Loughrey.

DEPARTMENTS

6 MEMBERS' FORUM

7 NOTES FROM RIVER FARM

8 NEWS FROM THE AHS
New AHS award to recognize young horticultural professionals, "In the Garden" weekend in Hot Springs, Virginia, America in Bloom's 15th annual symposium in October, AHS's garden gala in September, Coalition of American Plant Societies annual meeting recap, time to save seeds for AHS Members-Only Seed Exchange.

12 AHS MEMBERS MAKING A DIFFERENCE
Jim Sitch.

42 GARDEN SOLUTIONS
Take the long view with soil improvement.

44 TRAVELER'S GUIDE TO GARDENS
Jensen-Olson Arboretum, Alaska.

46 BOOK REVIEWS
Magnolias and Gardens of Awe and Folly. Special Focus: Bees and other pollinators.

48 HOMEGROWN HARVEST
Beefsteak tomatoes.

51 GARDENER'S NOTEBOOK
Researchers unravel genes of hybrid petunia's wild parents, pesticide developed from spider venom, new permaculture organization launches, Pacific Northwest botanist and garden founder Arthur Kruckenberg dies, American Hort's new president, Association of Professional Landscape Designers names Designer of the Year.

54 GREEN GARAGE
Container gardening products.

56 REGIONAL HAPPENINGS

60 PRONUNCIATIONS AND HARDINESS AND HEAT ZONES

62 PLANT IN THE SPOTLIGHT
Chesnut rose (Rosa roxburghii).
CACTI CONFUSION
In the May/June 2016 issue, a new article on page 49 titled “Purifying Water With Cacti,” made reference to a prickly pear cactus species (Opuntia ficus-indica) being used in producing a mucilage extract being studied for use as a water purifier. The image shown with the article looks to me, however, like Opuntia engelmannii, a primarily southwestern native known as the cactus apple. As a Master Gardener in Pinal County, Arizona, I grow both of these prickly pears on my property. When compared side by side, O. engelmannii has large spines on the pads, whereas O. ficus-indica has no large spines, only small glochids—hairlike spines—and is also more treelike in structure.

Zann Wilson,
Oracle, Arizona

IS SOIL TESTING HELPFUL?
In our May/June 2016 issue, we asked for input from members who use holding beds in their gardens and received quite a few responses that will help inform an article on the subject in an upcoming issue. This time, we’re asking those who have done a soil test to tell us what prompted you to test your soil and, if you took action based on the results, did you notice a difference?

Send your answers to editor@ahs.org and be sure to include your name and where you live. We’ll share the best responses in the September/October 2016 issue’s “Members’ Forum.”

CAREFUL WITH COMMON NAMES
In the wonderful article on native ferns published in the May/June 2016 issue, I was reminded once again that common names can sometimes be a cause of confusion. The photograph at the top of page 31 depicts the northern or five-fingered maidenhair fern (Adiantum pedatum), but the caption simply refers to it as “maidenhair fern.” Meanwhile, the text on that page describes both the northern maidenhair fern (A. pedatum) and the western maidenhair fern (A. aleuticum). And in a chart on page 33 you’ve included the southern maidenhair fern (A. capillus-veneris). Because these three ferns are quite different in appearance, degree of cold hardiness, and growing requirements, readers should be sure they use the correct scientific name when searching for the species appropriate for their region of the country.

Jeff Cox,
Kenwood, California

PLEASE WRITE US! Address letters to Editor, The American Gardener, 7931 East Boulevard Drive, Alexandria, VA 22308. Send e-mails to editor@ahs.org (note Letter to Editor in subject line). Letters we print may be edited for length and clarity.
ONE OF MY favorite events each year is the Great American Gardeners Awards and Book Awards Ceremony, held in early June. For one thing, River Farm’s beautiful gardens positively sparkle as we welcome garden connoisseurs from all over the country to the American Horticultural Society’s headquarters on the banks of the Potomac River in Virginia. But mostly, it’s such an honor to meet the award recipients and celebrate their extraordinary horticultural achievements.

Consider Kathy and Lee Lovett, a personable, talented, and dedicated couple from Georgia, who have created an innovative learning garden that has spawned programs for their community ranging from literary studies to healthy eating. Kathy had the vision—inspired by her work as a teacher—so she and Lee rolled up their sleeves to bring it to fruition for the benefit of thousands of children. Then there’s Tim Kant, who started as the first horticulturist for the city of Fairhope, Alabama, 30 years ago and today is its mayor. Throughout his career, he has tirelessly nurtured his city’s reputation and status as a horticultural gem, to the point where people joke that he put the “can” in “Kant.”

The authors and publishers of our AHS Book Award winners expressed an equal pride in their accomplishments. They included the staff of Chanticleer garden in Pennsylvania, which collaborated on an exquisite celebration of one of our country’s most acclaimed public gardens, as well as a team spread across several states who wrote a remarkable book about seed saving. It reaffirmed for me that peerless results can be achieved when people come together to share their talents, knowledge, and passion with each other.

Nominations are now open for our 2017 Great American Gardeners Awards, which include a new award that will recognize accomplished young leaders in our field (see “News from AHS” on page 8 for more details). We encourage you to help us recognize the best in American horticulture by nominating people, organizations, or businesses that you find inspiring. Find out how on our website at www.ahs.org/awards; the deadline for nominations is August 31.

Another AHS event I eagerly anticipate every year is our National Children & Youth Garden Symposium, taking place July 13 through 16 in South Carolina this year. Like our awards event, it’s a chance to meet dedicated people whose work makes a positive difference through plants. I also relish the chance to experience our host city’s gardens, schools, and other places that successfully connect younger generations with the natural world. We’ll be sharing some highlights from the symposium in the next issue of the magazine.

In the meantime, this issue contains plenty of inspiration for your garden as we reach the peak of summer. Among the seasonally-inspired topics you’ll find are ideas for using heat-loving ornamental bananas, tips for creatively combining perennials, advice for producing a bumper crop of beefsteak tomatoes, and a shopping list of “ice cream” plants to add sweet, delicious fragrances to your garden.
NEW AHS AWARD TO HONOR YOUNG HORTICULTURAL LEADERS

A NEW American Horticultural Society (AHS) award to debut in 2017 will recognize young horticultural professionals for outstanding achievements and leadership in the early stages of their career. The Emerging Horticultural Professional Award will be one of 11 categories comprising the AHS’s Great American Gardeners award program.

“We are delighted to launch this new award to recognize outstanding young horticulturists throughout North America,” says Holly H. Shimizu, chair of the AHS awards committee and a member of the Society’s Board of Directors. “This award is part of a larger organizational campaign to promote horticulture as an exciting and fulfilling career and encourage more talented young people to get involved in the field.”

Nominations are now being accepted for all the 2017 Great American Gardeners Awards categories. For more details, please see the opposite page.

GARDEN SYMPOSIUM AT THE OMNI HOMESTEAD RESORT IN VIRGINIA

ONCE AGAIN, the AHS is cosponsoring “In the Garden,” an annual weekend event hosted by the Omni Homestead Resort in Hot Springs, Virginia. This year’s event will take place from August 19 through 21. Craig LeHoullier, an heirloom tomato expert and author; Mark Weathington, director of the JC Raulston Arboretum in North Carolina; and André Viette, a Virginia-based horticulturist and garden radio show host, will be among the distinguished speakers.

Lectures will cover topics such as planting for pollinators, selecting the best plants for seasonal color, and techniques for growing fabulous tomatoes. The weekend also features garden tours of the Homestead’s gardens with staff horticulturist Forrest Lee. Registration for the event includes two nights at the resort, meals, and a complimentary AHS membership. For more information, visit www.thehomestead.com or call (800) 838-1766.

TOP: KATIE GARLOCK. BOTTOM: COURTESY OF OMNI HOMESTEAD RESORT
Call for Nominations

AMERICAN HORTICULTURAL SOCIETY
2017 GREAT AMERICAN GARDENERS AWARDS

It’s an Honor...

Since 1953, the American Horticultural Society’s Great American Gardeners Awards Program has recognized individuals and institutions that have made significant contributions to American horticulture. Nominations are now being accepted for 2017.

Nominate your “horticultural hero”—a memorable professor, a favorite garden book author, or the driving force behind an incredible community project.

For a nomination form and additional information, visit www.ahs.org/awards or call (703) 768-5700 ext. 121.

Nominations must be submitted by August 31, 2016.

Liberty Hyde Bailey Award
Given to an individual who has made significant lifetime contributions to at least three of the following horticultural fields: teaching, research, communications, plant exploration, administration, art, business, and leadership.

Luther Burbank Award
Recognizes extraordinary achievement in the field of plant breeding.

Paul Ecke Jr. Commercial Award
Given to an individual or company whose commitment to the highest standards of excellence in the field of commercial horticulture contributes to the betterment of gardening practices everywhere.

NEW Emerging Horticultural Professional Award
Given in the early stages of an individual’s career, this award recognizes significant achievements and/or leadership that have advanced the field of horticulture in America.

Landscape Design Award
Given to an individual whose work has demonstrated and promoted the value of sound horticultural practices in the field of landscape architecture.

Meritorious Service Award
Recognizes a past Board member or friend of the American Horticultural Society for outstanding service in support of the Society’s goals, mission, and activities.

B. Y. Morrison Communication Award
Recognizes effective and inspirational communication—through print, radio, television, and/or online media—that advances public interest and participation in horticulture.

Professional Award
Given to a public garden administrator whose achievements during the course of his or her career have cultivated widespread interest in horticulture.

Jane L. Taylor Award
Given to an individual, organization, or program that has inspired and nurtured future horticulturists through efforts in children’s and youth gardening.

Teaching Award
Given to an individual whose ability to share his or her horticultural knowledge with others has contributed to a better public understanding of the plant world and its important influence on society.

Urban Beautification Award
Given to an individual, institution, or company for significant contributions to urban horticulture and the beautification of American cities.

2016 Urban Beautification Award Recipient
Thomas Kant, Mayor of Fairhope, Alabama, with AHS Awards Chair Jane Diamantis and AHS Executive Director Tom Underwood.
It’s Seed-Saving Time

As plants in your garden set seeds, remember to save some to share with other AHS members during the Members-Only Seed Exchange at the end of the year. Those who donate seeds to the program get first pick of the entire catalog of seeds on offer next January. The deadline to send in seeds is November 1, so start saving your seeds, and look for more details and a submission form in the September/October issue of this magazine.

RESERVE SEATS NOW FOR AHS GARDEN GALA IN SEPTEMBER

THE AHS will hold its annual Gala on the evening of September 17 at River Farm, the Society’s headquarters overlooking the Potomac River in Alexandria, Virginia. This year’s theme is “Celebrating the Gardens of Virginia: Enjoying the Beauty and Bounty of the Earth.” The black-tie-optional event features honored guest Dean Norton, director of horticulture at George Washington’s Mount Vernon Estate and Gardens.

Guests will enjoy cocktails and fine dining as River Farm’s elegant gardens transition from twilight to moonlight. The evening also will feature a silent auction of one-of-a-kind artwork, vacation packages, specialty plant collections, jewelry, and many other items. Proceeds from the gala support the stewardship of River Farm and the Society’s outreach programs. For more information about the gala, including sponsorship opportunities, call (703) 768-5700 ext. 127 or send an e-mail to development@ahs.org.

COALITION OF AMERICAN PLANT SOCIETIES ANNUAL MEETING RECAP

THE COALITION of American Plant Societies (CAPS) met May 4 and 5 at the American Rose Society’s headquarters in Shreveport, Louisiana. Representatives from more than 12 national plant societies have gathered annually since 2012 to share best practices and talk about common opportunities and challenges. AHS Board member Harry Rissetto, who represented both the AHS and the American Dahlia Society, says the discussions and networking opportunities are “the overriding value” of the CAPS meetings, which are hosted by a different plant society each year.

One of the topics at this year’s meeting was how to use various social media platforms to enhance member communication and improve membership and marketing efforts. Other topics

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 May 1 to June 30, 2016.

$1,000+ Gifts

Mr. and Mrs. Frank Allocca
Mr. Philip Huey
Mr. and Mrs. David Asaibene
Mr. Charles J. and Dr. Dancy Kittrell
Ball Horticultural Company
Ms. Amy Bolton and Mr. and Mrs. James F. Masterson
Mr. Philip Schoene
Mrs. and Mrs. A. C. Meyer, Jr.
Mrs. Fern Bowman
Mr. and Mrs. Walter S. Montgomery, Jr.
Mrs. Barbara L. Carr
Mr. and Mrs. James J. Landon
Mr. and Mrs. Timothy Conlon
Mrs. and Mrs. Reeve, IV
Mrs. Judy Daniel
Mr. and Mrs. Richard Davison
Mr. and Mrs. James A. Runde
Mr. and Mrs. George Diamantis
Mr. and Mrs. Doug Scovanner
Mr. and Mrs. Scott Ernest
Mr. and Mrs. Osamu Shimizu
Mrs. Martha Harris
Ms. Lura Rae Steiner
Mr. and Mrs. Albert M. Harris
Mr. and Mrs. Harry Tunis
Huddleston
Mr. and Mrs. Klaus Zech

In memory of Barbara Wall and In honor of David Lerman
Louise Vanderburgh Wall
Ms. Robyn Lane
Mrs. Judy Daniel
In honor of Dr. Louis Lynn
Mrs. and Mrs. Scott Harris
Ms. Amy Bolton
Mrs. Martha Harris
In honor of Margaret Johnson
Mrs. Carl Estes
Ms. Bonnie Prouty
Mrs. Martha Harris
Ms. Lura Rae Steiner
Mr. and Mrs. Albert M. Harris
Mr. and Mrs. Harry Tunis
Huddleston
Mr. and Mrs. Klaus Zech

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 (703) 768-5700.

The floriferous gardens at the American Rose Center, headquarters of the American Rose Society, welcomed CAPS members in May.
The NEW Espoma Organic liquid plant foods are loaded with natural ingredients and millions of beneficial microbes to grow bigger, more beautiful plants. And with Espoma’s new Easy Dose cap, you’ll get a perfect pour every time. Just flip open the cap, pour the pre-measured dose into your watering can, and feed. No measuring. No mess.

Espoma. A natural in the garden since 1929.

Watch our video to learn more www.espoma.com/liquids

The 15th Annual America in Bloom Awards Symposium
This year’s America in Bloom (AIB) Symposium and Awards Program, to be held October 6 to 8 in Arroyo Grande, California, will celebrate the 15th anniversary of the nonprofit group’s founding. In addition to presenting awards to the AIB annual competition winners, this event will offer panels and presentations focused on topics such as valuing beautiful landscapes, planning for changing weather and climate patterns, and preserving champion trees. Excursions and other special events include a walking tour of Arroyo Grande, a visit to one of the many California flower production nurseries, a tour of the arboretum at nearby Cal Poly San Luis Obispo, and lunch on the beach.

AHS President Emeritus Katy Moss Warner, who is currently serving as AIB president, will be speaking during the symposium’s official welcoming ceremony. As a longtime AIB partner organization, the AHS sponsors the Community Involvement Award presented to communities that demonstrate extraordinary cooperation among residents, businesses, and organizations for beautification projects.

For more information or to register, visit www.americaninbloom.org. Early registration ends September 11.

News written by Editorial Intern Natalie Sheffield.
TO JIM SIRCH, gardening is for the birds. And the bugs. And the native plants under threat from habitat loss and competition with invasives. Trained as a naturalist, Sirch became interested in gardening when he began to realize just how important plants are as habitat for the creatures he was studying. Since then, he has helped to educate others about the benefits of wildlife gardening through his personal efforts as well as his position as the education coordinator for the Peabody Museum of Natural History at Yale University in New Haven, Connecticut.

BUILDING PARTNERSHIPS
One of Sirch’s roles during his 15-year tenure at the Peabody Museum is leading the institution’s involvement in the recently established New Haven Urban Wildlife Refuge Partnership. “This is a collaborative, community-wide restoration, revitalization, and education initiative bringing together a diverse community of people,” Sirch explains. “It aims to create and restore urban green spaces for people, birds, and all living things.”

Sirch’s involvement with this new initiative has included serving as an advisory board member and leading the museum’s contribution to the project, which has entailed working with parks and schools to develop interpretive signage for their wildlife gardens. To date, six schools in New Haven have established schoolyard habitats with the program, and another two are slated to complete theirs soon.

PERSONAL PROJECTS
In addition to promoting gardening for wildlife in a professional capacity, Sirch has spearheaded community habitat creation and conservation projects on his own time. In 2008, he received a grant from Lowe’s Toolbox for Education program to establish a 2,000-square-foot pollinator garden at the Hamden, Connecticut, elementary school his daughter attended at the time. He worked with Christine Cook, a landscape architect associated with the Connecticut Butterfly Association, to design the garden. He also oversaw the volunteers who planted and maintained the garden, which has been designated a National Wildlife Federation Certified Habitat, a Monarch Way Station, and a Xerces Society for Invertebrate Conservation Pollinator Habitat.

More recently, Sirch became the president of the Hamden Land Conservation Trust (HLCT). He helped establish one of its awareness initiatives called “Hamden Wild Yards” that identifies residents who have improved the wildlife value of their yards and highlights them in local news articles. This year, Sirch is planning a pollinator plant sale for HLCT. Sirch views plant sales as educational events where homeowners can learn “about which plants are wildlife magnets as well as how to care for and properly maintain wildlife gardens.”

Naturally, Sirch also gardens on his own one-acre property, where he has been adding native species that support wildlife. As a home gardener, naturalist, educator, and advocate, he finds that his interests align with the American Horticultural Society’s focus on the relationships between people and plants. An AHS member since 1999, he particularly appreciates the organization’s efforts to reach younger generations and promote sustainable gardening practices because of his own “passion for teaching others how to encourage butterflies, bees, and birds through their gardens,” he says.

Above: Jim Sirch in the butterfly garden he created for Bear Path Elementary School. Left: Sirch shows children monarch butterfly eggs on a milkweed plant in his backyard garden.

Natalie Sheffield is an editorial intern for The American Gardener.
The American Horticultural Society’s 23rd Annual Gala

Celebrating the Gardens of Virginia
Enjoying the Beauty and Bounty of the Earth

Saturday, September 17, 2016
6 p.m.–10 p.m.
at River Farm in Alexandria, Virginia

HONORED GUEST
DEAN NORTON
Director of Horticulture at George Washington’s Mount Vernon

Call (703) 768-5700 ext. 127 or 132 or visit www.ahs.org/gala for more information, including advertising, sponsorships, and ticket sales.
Architectural Annuals

Gardeners looking to add quick summer color often turn to the likes of begonias, petunias, lobelias, and other compact bedding plants that are standard fare at garden centers and big box stores. But taller annuals—those that reach to three feet and above at maturity—offer an extra dimension via their architectural habit and the intriguing texture and color of their stems, branches, foliage, and flowers. This can extend interest in the garden well beyond the blooming period of more common bedding plants.

Statuesque annuals offer a number of advantages. The largest make unusual seasonal hedges and spectacular specimens in the landscape or containers. The tallest can bring the sky into the garden by drawing the eye upward, occupying some of that pesky vertical space that designers are always badgering us to use. Architectural annuals can be used as quick-maturing background plants, and if carefully interspersed with existing perennials, bulbs, and shrubs, they can bring fresh delight to a long established landscape.

Here are a few of my favorite big annuals; these are true annuals rather than tropicals masquerading under the guise of tender perennials. (For more choices, see the web special for this issue on the AHS website at www.ahs.org.) Unless otherwise noted, all thrive in full sun with regular watering and will do well in most regions of the country. Apply a balanced liquid or granular fertilizer every three weeks during growth.

A pantropical native of Asia, Africa, and South America, prince’s feather (Amaranthus hypochondriacus) grows three to seven feet tall by two feet wide. The selection ‘Giant Purple’ reaches the upper limits of the height range, bearing oval to lance-shaped, smooth-edged or minutely scalloped, reddish-purple-flushed leaves. In summer, the reddish-purple flowers bloom in dense, upright panicles. When pollinated, the flowers yield red seed clusters that are both decorative and edible.

Some selections of the California native clarkia or mountain garland (Clarkia unguiculata) grow three to four feet tall, such as ‘Apple Blossom’, with reddish stems cloaked in lancelike green leaves. In summer, bees swarm to its numerous, fully double, apricot-pink flowers touched with...
white, which bloom in erect spikes. ‘Apple Blossom’ is particularly lovely paired with ‘Blue Boy’, a cultivar of bachelor’s button (Centaurea cyanus).

A cultivar of flamingo feather (Celosia sp.), ‘Cramer’s Amazon’ grows to six feet tall and up to four feet in diameter. Discovered in Peru by cut flower grower Ralph Cramer, its green stems and leaves are flushed ruby red. Densely clustered spikes of magenta-purple blossoms bloom in branched, upright panicles over a long period from summer through fall.

Native to South America, spiderflower (Cleome hassleriana) grows to five feet tall. Its palmately compound leaves are divided into five to seven lance-shaped leaflets. The stems are topped in summer with clusters of fragrant flowers; these can be white, pink, lavender, purple, or bicolor, depending on the cultivar. The whiskerlike stamens that protrude from the flowers add to their airy effect and may have suggested the fanciful common name. Deadhead to avoid self-seeding.

A member of the nightshade family, woodland nicotiana (Nicotiana sylvestris) grows four to six feet tall and two feet wide with a bushy habit. Starting from a basal rosette of large leaves, woodland nicotiana develops a multi-branched central stalk cloaked in hairy, paddle-shaped leaves that are sticky to the touch. Starting in mid- to late summer, panicles of drooping, long-tubed, white flowers radiate outwards from the branch-tips like fireworks. The flowers open at dusk and on cloudy days, dispensing a heady, jasminelike perfume that draws pollinators. I like the selection ‘Only the Lonely’, which is wonderful planted under a bedroom window.

Also in the nightshade family is downy thornapple (Datura metel). Originally native to Asia, it has naturalized widely and crossed freely with other species. Plants grow about four feet tall and nearly as wide, bearing deep green, spade-shaped leaves with wavy edges. Blooming from mid- to late summer, the sweetly fragrant, eight-inch-long, trumpet-shaped flowers
are usually white or violet on the outside and pale violet within. The spiny, spherical seed pods that form in late summer to early fall are intriguing but should be removed to avoid self-sowing. (Note: All parts of the plant are poisonous if ingested, so this is not a good choice for gardens frequented by pets or small children.)

Graced with a sentence-length common name, **kiss-me-over-the-garden-gate** (*Persicaria orientalis*, formerly *Polygonum orientale*) is a clump-former that grows to six feet tall by five feet wide. Each plant bears large, heart-shaped leaves, and narrow, nodding spikes of scented, rose-pink blossoms in summer. When blooming, the plants look lovely.

**Sources**


**Resources**


surging over a low wall. They can self-seed aggressively in some regions, so deadhead scrupulously.

Native from central Mexico to Panama, Mexican sunflower \( (Tithonia rotundifolia) \) can reach seven to 10 feet tall under ideal conditions. The hairy stems support tiers of nine-inch leaves that are heart-shaped at the base, sometimes dividing into three to five lobes with slightly serrated edges. From late summer to fall, vivid, daisylike, orange to orange-scarlet flowers with yellow centers bloom atop the foliage, attracting a wide variety of insects and birds. For smaller gardens, the selection ‘Torch’ grows only four to five feet tall and starts blooming earlier in the summer.

Suitable to both in-ground and container gardening, \( Zea mays ‘Japonica Striped’ \) is arguably the most attention-grabbing of the ornamental maize plants on the market. Growing five to six feet tall, each plant bears multicolored leaves striped in rose, yellow, white, and green. When ears form in late summer, the tassels are dark purple, and the inedible kernels are a rich burgundy color.

No list of architectural annuals would be complete without mention of sunflowers \( (Helianthus annuus) \). There are hundreds of selections to choose from, but there are two that I find particularly striking: ‘Mammoth’ gets up to eight feet tall, each plant bearing a foot-wide golden blossom yielding numerous edible seeds. ‘Russian Giant’ gets even taller, to 10 or 11 feet, and is topped with a 10-inch yellow flower. They make impressive sentinels for the back of a border, and great bird attractors come fall when the seeds have ripened.

Consider adding quick vertical appeal to your garden with some of these taller annuals. Even single specimens draw the eye upward, and when planted \textit{en masse}, they can stop traffic.

A freelance writer based in Santa Fe, New Mexico, Rand B. Lee is a regular contributor to The American Gardener.
Widely considered one of American horticulture’s rising stars, Riz Reyes poses here with artichoke agaves planted in the desert garden he designed at the McMenamins Anderson School in Bothell, Washington.
A precocious plant geek, 30-something Riz Reyes has been heating up the horticultural hotbed of the Pacific Northwest since his early teens.

The Northwest Flower & Garden Show (NWFGS) is perhaps the major event on the gardening calendar in the Pacific Northwest. The annual show, held over several days each February at the Washington State Convention Center in Seattle, is where the region’s garden geeks converge to create fabulous plant exhibits and floral arrangements, listen to lectures from national and international gardening legends, and get a foretaste of spring.

It’s also a place where rising horticultural stars like Rizaníño Reyes—better known as “Riz”—have a chance to test their mettle. Reyes’s first opportunity to do so came in 1994 when he entered the amateur flower arranging competition sponsored by the Washington State Federation of Garden Clubs. “I remember going up those escalators and there would be these huge displays right as you walk in. I thought, this is it—the world, the career, I belong in,” recalls Reyes.

When that competition was discontinued the following year, Reyes decided to try creating vignettes, small displays only about 10 feet square. So he met with Barbara Flynn, who coordinated these displays for the NWFGS. Their conversation ended abruptly when Reyes told Flynn he had to leave, because he had homework to do. Homework? she asked, thinking he was perhaps a college student. “Well, I’m only 13 years old,” he replied. Still, Reyes made time for the show, and Flynn made sure the enthusiastic teenager had the proper support. “Barbara was a matchmaker of sorts,” he recalls. She introduced him to Mary Fisher, owner of Cultus Bay Nursery on Whidbey Island, just north of Seattle, and Bob Lilly, who became Reyes’s gateway to local organizations and plant study weekends, among others.

“Barbara called me one day,” Fisher says, “and said I have this young guy and he wants to have a display at the flower show. I thought of you, because you love children and your nursery has a booth.” Fisher visited Reyes at his family’s apartment, checked out the plant collection he had established on the balcony, and recognized true dedication when she saw it. She provided plants and guidance as Reyes created his first vignette, a display that represented plants of the Philippines—where he was born—as well as the Pacific Northwest.

He designed other vignettes in subsequent years that showcased his growing knowledge and experience. Then, in 2013, he designed a show garden titled “The Lost Gardener—A Journey from the Wild to the Cultivated,” for which he received the show’s top award, the Founder’s Cup. By then, Reyes’s accomplishments were gaining widespread attention. He was one of six “next-generation stars of horticulture” profiled in a 2013 article by Ken Druse in Organic Living magazine.

Despite his extraordinary talent, colleagues say it hasn’t gone to his head. “He has such a passion for plants,” Fisher says, “and yet he’s never boastful.”

Early Influences
Reyes’s family immigrated from the Philippines to the United States in 1989. Reyes was seven at the time and his head was full of memories of his tropical homeland. As he and his family put down roots, Reyes began to “seriously get into plants.” He haunted the floral section of the local stores, learning the names of the flowers and watching as the six-packs of annuals arrived in spring. A neighbor gave him a handful of leftover dahlia tubers that he grew with mixed success, prompting her to give Reyes that age-old gardener’s advice: “There’s always next year.” So he kept on experimenting and learning.

After high school, Reyes entered the University of Washington (UW) to earn a bachelor’s of science degree in Environmental Horticulture and Urban Forestry. His studies placed him within the realm of the UW Botanic Gardens, which comprises the Washington Park Arboretum as well as the Center for Urban Horticulture and the Elisabeth C. Miller Library. Reyes, of course, was familiar with the botanic gardens’ resources for students and the public long before he attended college, because the complex is a hub for many local organizations, including the Northwest Horticultural Society and the Northwest Perennial Alliance. Upon graduation, the Center for Urban Horticulture offered him a part-time position as head gardener of the Orin & Althea Soest Herbaceous Display Garden on site, a position he held for eight years.

As a boy, Reyes assembled a diverse array of plants on the balcony of his family’s apartment.

**Early Influences**
Reyes’s family immigrated from the Philippines to the United States in 1989. Reyes was seven at the time and his head was full of memories of his tropical homeland. As he and his family put down roots, Reyes began to “seriously get into plants.” He haunted the floral section of the local stores, learning the names of the flowers and watching as the six-packs of annuals arrived in spring. A neighbor gave him a handful of leftover dahlia tubers that he grew with mixed success, prompting her to give Reyes that age-old gardener’s advice: “There’s always next year.” So he kept on experimenting and learning.

After high school, Reyes entered the University of Washington (UW) to earn a bachelor’s of science degree in Environmental Horticulture and Urban Forestry. His studies placed him within the realm of the UW Botanic Gardens, which comprises the Washington Park Arboretum as well as the Center for Urban Horticulture and the Elisabeth C. Miller Library. Reyes, of course, was familiar with the botanic gardens’ resources for students and the public long before he attended college, because the complex is a hub for many local organizations, including the Northwest Horticultural Society and the Northwest Perennial Alliance. Upon graduation, the Center for Urban Horticulture offered him a part-time position as head gardener of the Orin & Althea Soest Herbaceous Display Garden on site, a position he held for eight years.
As head gardener at McMenamins Anderson School—a former school that now contains a pub, restaurants, and hotel—Reyes is responsible for designing and maintaining the elaborate gardens, which include a meadow, above, desert garden, below left, and formal streetside border, below right.
The Soest garden, which opened in 1998, was designed to showcase the best qualities of plants when they are sited properly according to their soil, light, and water needs. The small landscape quickly became a popular spot not only for plant identification classes, but also for anyone seeking a sunny (or shady) bench upon which to enjoy lunch. By the time Reyes took the job, he had a mature landscape on his hands, one that required continual evaluation and editing and also coming up with unique and educational planting schemes—on a limited budget. As many gardeners do, he fashioned a full-time career by adding on design and maintenance clients as well as floral design work (see sidebar on page 24).

Despite his evident aptitude for his chosen profession, Reyes’s career path initially caused some consternation within his family. “I don’t think very many Filipinos would aspire to become a gardener as a profession,” Reyes says, “as it is often categorized as menial manual labor requiring little knowledge and skill.”

That’s a stereotype Reyes has experienced from both sides. “It’s happened that people see me working in a garden and they think all I know is how to use the blower.”

Regardless of which direction the misconception comes from, Reyes continues on his path, unafraid to “do the dirty work” to show what he is capable of. “My cultural upbringing has kept me grounded to always remember that you work for everything. Nothing is just given to you,” says Reyes.

GATEWAYS TO HORTICULTURE
In the world of professional horticulture, “Riz absolutely shines,” says Kirk Brown, who lectures on historic and horticultural topics and is president of GWA: The Association of Garden Communicators. Brown met with Reyes in 2014 as part of a series of interviews he scheduled with rising stars in the gardening industry to better understand what drove them. “The information Riz uses and passion that he demonstrates are part and parcel of who he is,” says Brown. “Riz has led the perfect horticultural gypsy’s life. He’s taken a little bit of this and a little bit of that, and he’s made a life.”

While his own passion for plants is innate, Reyes believes “there are so many gateways” for drawing successive generations into horticulture and gardening. “The most common is food,” he notes. Putting vegetable-shunning little hands into the dirt can turn a life around. “As a kid, you’re outside and playing and you’re exposed to your environment. And we have to remember that whatever food fad comes along—pomegranates, goji berries—it always goes back to horticulture.”

Reyes thinks that something as simple as a Mother’s Day bouquet or the receipt of a potted plant can spark interest in gardening. “People know flowers —people get that. And that means opportunities for education are everywhere,” he says.

EVER-INCREASING OUTLETS
Although Reyes doesn’t currently have a garden of his own, he looks forward to a time in the near future when he will own a house and be able to dig in. In the meantime, he has found another opportunity: a new job as head gardener of the grounds at the Anderson School in Bothell, a city just northeast of Seattle. Anderson School, originally a junior high that opened in 1931, is now part of the McMenamins group of hotels and pubs, which are located in Oregon and Washington. McMenamins properties are known for their landscapes, which incorporate original elements with innovative art and exciting plants.

“I was at Anderson School early in its development,” Brown says. “It’s entirely unlike any other commercial landscape in the area. Horthalolics will be amazed.”

For this job, Reyes brings together all the skills he has acquired through both

Reyes’s gardens around McMenamins Anderson School include subtle touches, such as sedums growing in the crevices of a dry-stack wall composed of repurposed concrete, and wisteria growing along a fanciful metal trellis.
A HORTICULTURAL TAKE ON FLOWER ARRANGING

Rizaniño “Riz” Reyes’s formal entrée into flower arranging began at age 12, when he entered the Washington Federation of Garden Clubs floral competition at the Northwest Flower & Garden Show, and his interest has never diminished. Since Reyes has no formal floral design training, he looks to the plants themselves for ideas on just what to put in a vase. “Horticulture taught me how to arrange flowers,” he says.

Although his job at Anderson School is full-time, Reyes has retained a select number of private clients, including Brian Coleman, whose Seattle home in the Queen Anne neighborhood has delighted both neighbors and visitors for many years. Here, the trees and shrubs—such as the clipped variegated English hollies (Ilex aquifolium)—form the bones of the garden. Each year, Reyes generously supplements them with a wild and colorful array of coleus, dahlias, fancy-leaved pelargoniums, and castor bean (Ricinus communis).

“Riz is a unique floral designer—he is completely breaking the mold in floristry, because he isn’t traditionally trained,” says Debra Prinzing, a California-based author and founder of Slowflowers.com, which promotes locally grown flowers.

“Although Reyes’s horticultural work comes first, he often helps out friends—and friends of friends—with floral arrangements for weddings and other special events. At the Anderson School, the Easter table this spring included branches of red-flowering currant shooting out of a low container. They were in bloom, you see, and so Reyes had to use them. “His style is very much in line with the naturalistic look in wedding design,” Prinzing says.

“I like working with branches and vines, and I prefer a looser, what they call romantic garden style,” Reyes acknowledges. “Riz is in love with whatever is in season,” Prinzing says, “a bud unfurling, wacky bark or pods. He’s got that full-use mindset about floral arranging.”

Flower arranging is, for Reyes, really quite simple: “Give me a vase with water and let me cut things from the garden.” —M.W.

A resident of Seattle, Washington, Marty Wingate is the author of several garden mysteries. She frequently leads tours of gardens in the United Kingdom and the United States.
“Ice Cream” Plants

Add a Neapolitan theme to your garden by growing some of these plants that infuse the air with deliciously sweet scents.

BY KRIS WETHERBEE

WHO DOESN’T enjoy a big scoop or two of ice cream on a hot summer day? Despite the many flavors available, according to recent surveys conducted by the International Ice Cream Association, the two most popular flavors in this country are still vanilla and chocolate. When I was growing up in the 1960s, it seemed that you could always find a gallon of Neapolitan ice cream—a side-by-side concoction of vanilla, chocolate, and strawberry flavors—in just about every freezer in our neighborhood, and this flavor still brings back happy memories for me.

Whatever your favorite flavor is, a fun project for summer is growing an ice cream-inspired garden. There are a number of vines, shrubs, annuals, and herbaceous perennials with flowers or foliage that exude scents reminiscent of vanilla, chocolate, and strawberry. No matter where you live or how much space you have, you’ll be able to find a few to suit your garden. Just be sure to site these plants where you can get up close to enjoy them, such as by a bench or pathway, so you can brush against them to release their fragrance. Or grow them near the front door, in containers on your patio or deck, or beneath a window, where a breeze can bring the sweet aroma inside your home.

When it comes to fragrance, keep in mind that everyone processes it differently. What smells like vanilla to me might smell more like honey to you. Fragrance can also be mild to strong depending on growing conditions and vary from day to night. Of course, growing “ice cream” plants can’t substitute for the real thing, so just be imaginative! Here is a selection of deliciously scented plants to get you started.

**VANILLA SCENTS**

**Boxleaf azara** (*Azara microphylla*). The yellow spring flowers of this slow-growing—to about 15 feet tall—evergreen shrub or tree native to South America have an intense fragrance described as vanilla or white chocolate. Small, roundish, dark green, glossy leaves grow on arching branches with an open framework. In the United States, this plant is grown mainly in California and the coastal Pacific Northwest. Grow in sun or light shade in welldrained soil. USDA Hardiness Zones 8–10, AHS Heat Zones 10–8.

**Clematis montana ‘Elizabeth’**

**Clematis** (*Clematis* spp.). Sweet autumn clematis (*C. terniflora*) offers clouds of star-shaped, creamy-white, vanilla-scented flowers in late summer and autumn. Native to Japan, this deciduous to semi-evergreen vining plant grows vigorously to 20 to 30 feet and can cover a fence or trellis in no time. It tends to self-sow in the eastern United States, so to keep it in check, remove spent flowers before they can set seed and cut it back heavily in winter. For springtime sweetness and better behavior, try selec-
tions of *C. montana* (Zones 5–10, 10–1) such as white-flowered ‘Grandiflora’ and pink-flowered ones such as ‘Elizabeth’, ‘Mayleen’, and *C. montana* var. *rubens* ‘Pink Perfection’. Best in full sun to part shade with average water. Mulch to keep roots cool. Zones 5–10, 10–1.

**Heliotrope (Heliotropium arborescens)**. In most of North America, heliotrope is usually treated as a summer annual, but it is actually a tender perennial from South America. Plants grow 18 to 30 inches tall, with clusters of lusciously aromatic summer flowers in white, deep purple, or brilliant blue. Best in full sun with some afternoon shade and well-drained soil. Zones 11–11, 12–1.

**Jeffrey’s pine (Pinus jeffreyi)**. This evergreen conifer is native to mountain regions from southwest Oregon south to Baja California, Mexico, where the fragrance of its brown to red-brown flaking bark beckons to many a hiker. The fragrance has been compared to that of vanilla, butterscotch, and fresh-baked sugar cookies. A mature tree may attain a height of 60 to 125 feet. Adaptable to a wide range of growing conditions, it is drought and heat tolerant. Zones 5–9, 9–5.

**Summersweet (Clethra alnifolia)**. Growing five to seven feet tall and wide, this deciduous shrub native to much of the Eastern Seaboard bears upright spikes of sweetly scented, primarily white flowers in mid- to late summer. The selection Vanilla Spice® (‘Caleb’) grows up to six feet tall and has extra large, pure white flowers full of vanilla fragrance. ‘Ruby Spice’ has deep pink flowers. If
you’re looking for a smaller plant, try white-flowered ‘Hummingbird’, which grows under two feet tall. All selections are pollinator magnets. Grows best in moist, slightly acidic soil in a site with full sun to part shade. Zones 4–9, 9–1.

Valerian (Valeriana officinalis). This perennial grows to five feet tall, with rounded clusters of white to pink summer flowers resembling those of Queen Anne’s lace but with a divine vanilla scent. It has green pinnate leaves composed of toothed leaflets. Grow in full sun in moist, well-drained soil. This plant tends to freely self-sow, so deadhead spent flowers to prevent it from spreading. Native to Europe and western Asia. Zones 4–9, 9–1.

White forsythia (Abeliophyllum distichum). Native to Korea, this deciduous shrub grows three to four feet tall and wide. In winter, its bare, deep brown or black branches are smothered with pink-tinted buds that open to white forsythialike flowers (sometimes flushed pink). Thrives in full sun to part shade and tolerates a wide range of soil conditions. Zones 5–8, 8–5.

**CHOCOLATE SCENTS**

Chocolate cosmos (Cosmos atrosanguineus). Growing from 18 to 30 inches tall, this summer to fall-blooming perennial produces burgundy flowers with a distinct cocoa scent. Chocamocha™ is a compact cultivar that grows to 12 inches. The flowers are great for cutting, which brings that chocolate smell indoors. Best in full sun and moist, well-drained soil. Mulch in winter; dig up tuberous roots in fall in colder areas to overwinter. Native to Mexico. Zones 7–11, 12–1.

Chocolate flower (Berlandiera lyrata). This daisylike perennial native to Mexico and the American Southwest grows to two feet tall. Its chocolate-scented flowers, which bloom from spring through summer and into fall, are composed of yellow ray flowers around maroon to brown disk flowers. After the petals drop, the green disk and cuplike green bracts
provide further interest. Best in full sun and moist, well-drained soil; do not overwater. The scent is strongest in the morning and on sunny days. Zones 5–9, 9–4.

**Chocolate mint** (*Mentha × piperita ‘Chocolate’*). A hybrid of plants originally from Europe and the Middle East, this perennial has brown-tinged leaves with an aroma similar to a chocolate mint patty, although its taste is less so. Grows to two feet tall in full sun to part shade in moist, fertile, well-drained soil. Best grown in a container to confine spreading roots. Zones 5–9, 9–1.

**Chocolate vine, five-leaf akebia** (*Akebia quinata*). This deciduous twining vine grows from 15 to 20 feet (or more), with dainty, palmate leaves. In spring, clusters of small purple-red flowers open, releasing a scent some compare to milk chocolate; others to spicy vanilla. Fleshy, edible, sausage-shaped fruits develop in late summer. Can be grown in sun or shade, but thrives in cool semi-shade with moist, rich soil. Needs support for climbing. Native to Asia, this plant has naturalized in parts of the eastern United States; if you grow it, keep it in check by removing fruits and regularly cutting back wandering vines. Zones 5–9, 9–2.

**Clematis ‘Jan Fopma’**. This hybrid clematis grows up to five feet and bears a profusion of small, nodding, cocoa-scented, reddish-purple flowers with pale edges from midsummer to early fall. Its dark green foliage is flushed purple. Grow in sun or part sun. Zones 5–8, 8–4.

**Tickseed** (*Bidens ferulifolia*). With this short-lived perennial, it’s the fernlike foliage that smells of chocolate. The bright yellow, late-summer blooms have a fragrance that is more like honey and attracts bees and butterflies. Native to Arizona and Mexico, the species grows up to two feet tall. Smaller selections include ‘Golden Eye’, which has a trailing habit to 10 to 12 inches and is suited for hanging baskets or window boxes. It thrives in full sun to part shade and moist, well-drained soil. Zones 8–11, 11–1.

---

**Sources**

- **Forestfarm at Pacifica**, Williams, OR. (541) 846-7269. [www.forestfarm.com](http://www.forestfarm.com).
- **Park Seed**, Hodges, SC. (800) 845-3369. [www.parkseed.com](http://www.parkseed.com).

---

*Mentha × piperita ‘Chocolate Mint’*  
*Bidens ferulifolia*
STRAWBERRY SCENTS

Sweetshrub, Carolina allspice (Calycanthus floridus). This deciduous, stiffly branched shrub from six to 10 feet tall bears two-inch-wide, reddish-brown, strawberry-or melon-scented flowers in late spring or summer. The brownish pear-shaped capsules that follow also have a fruity aroma when crushed. Grow in sun or shade and cool and continually moist soil. This shrub is often propagated by seed rather than by cuttings, unfortunately, so buy plants in bloom to be sure of optimal strawberry scent. Native to the southeastern U.S. Zones 5–9, 9–4.

Strawberry-scented geranium (Pelargonium sp.). Among the many selections of scented geraniums that are grown for their fragrant foliage is Pelargonium ‘Lady Scarborough’ (also sold as ‘Countess of Scarborough’), a trailing tender perennial with delightful strawberry-lemmon-scented foliage. Its pink flowers have dark markings on the upper two petals. Plants need well-drained soil. Where summers are temperate, they can be grown outdoors in full sun, but they need part shade where summers are hot. Because they are tender perennials, these geraniums are best grown in containers in regions with cold winters so they can be brought indoors at the end of the growing season. Zones 10–11, 12–1.

Strawberry (Fragaria × ananassa). Yes, this is the strawberry that produces the familiar red fruits—technically achenes—that you can eat with real ice cream! Short-lived perennials that usually last about three years, these plants spread by runners and come in varieties that produce fruit in spring, summer, or intermittently throughout the growing season. Easy to cultivate in containers, they need full sun and well-drained soil for best fruit production. You can also try alpine strawberries (F. vesca), which produce smaller fruits and don’t have runners. Zones 4–8, 8–1.

A contributing editor for The American Gardener, Kris Wetherbee gardens in Oakland, Oregon.
GARDENING WITH bananas is no longer confined to those who live in tropical regions. The high-tech world of tissue culture, along with the vast number of new tropical plant introductions in the last decade, afford even temperate-zone gardeners the opportunity to add tropical flair or a touch of the exotic to their gardens with bananas and their relatives.

THE BANANA FAMILY
The banana family (Musaceae) consists of 75 or so species. The vast majority are in the genus *Musa*, but two other genera, *Ensete* and *Musella*, include important ornamental species. Most wild bananas come from the western Pacific and Southeast Asia, but others are scattered from India to South Africa. The family shares a number of traits with closely related species such as cannas, heliconias, gingers, and birds-of-paradise.

The banana is considered the world’s largest herbaceous perennial because it has no woody tissues. The modified leaf sheaths are wrapped tightly together to form a durable pseudostem capable of holding up a canopy of large, luxuriant leaves and a heavy stalk of fruit.

People tend to picture banana trees as giants, but most species are well under 20 feet tall. Recently discovered *Musa ingens* from Papua New Guinea is the world’s largest herbaceous plant, however, reaching an astounding 50 feet tall with a circumference at ground level of more than six-and-a-half feet. Individual leaves can reach over 16 feet long.

More than a thousand banana varieties have been selected for their edible fruits (for more on edible bananas, see sidebar, page 34) and the fibers in their shoots, which are used to make textiles and paper.

'Maurelii', a selection of African red banana, creates a spectacular focal point in the former garden of designer Linda Cochran in Bainbridge Island, Washington. In front of ‘Maurelii’ are ‘Bonfire’ begonia, right, and matalija poppy (*Romneya coulteri*).
While some bananas produce viable seed, others, including most varieties grown for consumption, are parthenocarpic—they produce seedless fruits—so must be propagated vegetatively. This was traditionally accomplished by removing pups—plantlets that form at the base of the stalk—but in the last decade, tissue culture propagation has greatly increased the availability and reduced the price of bananas and their relatives to the point that more gardeners are growing them, even where they are not hardy, as ornamental annuals.

**ORNAMENTAL BANANAS**

A few ornamental bananas can be overwintered as far north as USDA Hardiness Zone 7 with little or no protection, and many produce such enormous growth in a single season that they are well worth growing as annuals. Most ornamental selections can also be grown in containers and brought indoors for winter. In whatever way ornamental bananas are grown, they impart a lush, exotic accent that is hard to beat.

“They certainly stylize a garden and add a tropical flair to the landscape, so they are not for every garden,” says plantsman Dan Hinkley of Indianola, Washington, who adds, “I find the boldness of their leaves to be to my personal liking so I readily include them in my own.”

Tony Avent, owner of Plant Delights Nursery in Raleigh, North Carolina, accentuates bold banana foliage by growing fine-textured plants nearby. “Bananas look best against a contrasting texture, like a spruce or fir. That really messes with the mind of garden visitors because they seem so incongruous,” he says.

One of the top-selling and most desirable of exotics is the Japanese fiber banana (*Musa basjoo*, USDA Hardiness Zones 7–10, AHS Heat Zones 12–1). With extra protection and careful siting, this plant can survive winters in USDA Zone 5 and produce 10 to 15 feet of exuberant growth in a single growing season. Hinkley says that while fully hardy in his Pacific Northwest climate, it “will go down to the ground in the coldest years. If we have enough heat during our summers it will easily achieve 15 feet or more and frequently blossom.”

Japanese fiber banana performs equally well in East Coast gardens. In fact, it is the only banana that consistently thrives in the Washington, D.C., garden of botanist,
plant breeder, and garden blogger John Boggan. “The foliage will often survive a light frost, and generally looks good right up to the first hard freeze; in my garden, that’s usually mid-November, but one or two years, I’ve had leaves on my banana into early December,” says Boggan.

*Musa basjoo* is best sited where it’s sheltered from wind. “The intact leaves are big and beautiful but are fairly thin, and shred easily,” says Boggan. Where it is struck down by freezes, the old top growth provides good protection from the winter cold. Remove the dried leaves and pseudostems in late March or early April to allow new growth to emerge. Growers in northern regions should apply a thick layer of shredded bark mulch, dry leaves, or even a protective blanket to prevent deep freezing of the soil. It is a remarkable grower and adaptable to many climates and growing conditions.

Darjeeling banana (*M. sikkimensis*, Zones 7–11, 12–1), native to the forested foothills of the Himalayas in northeast India, has also shown some potential as an ornamental species worth growing in temperate gardens. Trials in the United States and some European countries suggest it is as cold hardy as Japanese fiber banana. Darjeeling banana is similar in size to Japanese fiber banana, growing to 15 feet with attractive red or purple coloration on the trunk, leaf midribs, and new foliage. It is a seeded, non-edible species.

Another relatively hardy selection is the very ornamental pink banana (*M. velutina*, Zones 7/8–10, 12–1), native to India. Planted in the right spot, this species can produce very pretty, bright pink, velvety fruit—seedy and inedible, unfortunately—in one growing season as far north as coastal North Carolina.

One of the most visually spectacular ornamental banana relatives is the Abyssinian or African banana (*Ensete ventricosum*, Zones 10–11, 12–1). With proper care, it can grow to 20 feet tall and wide in a single season, with the wide-spreading, broadly paddle-shaped leaves with plum-red stalks creating a garden centerpiece in the ground or in a container. A lusted-after selection called ‘Maurelii’ has reddish tinted foliage along with the dark red leaf stalks. This banana rarely produces pups and dies at the end of the season, but thanks to tissue culture, you can replace it annually at a relatively inexpensive price.

Another odd banana relative is the Chinese yellow lotus banana (*E. lasiocarpum*, syn. *Musella lasiocarpa*, Zones 7–10, 12–1). This species produces a short, stumpy stem three to five feet high with widely splayed foliage. Each year it is topped by a single complex bloom that looks like a cross between a giant artichoke and a golden lotus. The result is a truly distinctive garden display. With protection from hard frosts it will readily produce pups.
HYBRIDS AND SELECTIONS

Among the hundreds of banana cultivars available, here are a few suggestions to get you started. All will grow best in USDA Hardiness Zones 9 to 10 and AHS Heat Zones 12 to 1.

If you live in a townhouse or apartment, you can grow smaller banana cultivars in a container. True dwarfs pop up as tissue culture sports and have been marketed under names such as ‘Super Dwarf Cavendish’, ‘Little Prince’, and a few others. The best and most consistently small is ‘Truly Tiny’, but even its size varies with culture and climate. Potted specimens can grow two feet tall, but planted in the ground, they can nearly double that height in milder climates. The level of water and fertilizer provided also influences ultimate height. It is said to have edible fruit, but the bananas only reach a couple inches in length and won’t yield more than a nibble each. It is a fairly abundant producer of pups, and in the tropics can form a groundcover under taller plants.

Among standard-size selections, ‘Si-am Ruby’ is a relatively new introduction that is popular for its beautiful deep red foliage accented with green flecks. It has proven challenging to grow, given its tall, narrow stem and thin leaves that break easily in the wind, and is shy to produce fruit. If you can keep it happy, however, it is worth the extra coddling. Grow it in full sun, where it will reach eight to 12 feet tall.

‘Margarita’ produces gorgeous chartreuse foliage that is a striking contrast to the red leaves of ‘Siam Ruby’. It absolutely needs protection from both bright sun and high winds; it is suited to a not-too-sunny sunroom and grows fast in summer in a sheltered location, reaching 12 to 15 feet.

A new favorite of mine is ‘Thai Black Stem’. As it grows taller, the pseudostem takes on a rich, shiny, dark chocolate to near-black color. The leaves are wider than most other varieties and very wind resistant. Site it in full sun, where it will grow 10 to 15 feet tall.

Two relatively new cultivars are ‘Siam Ruby’, above, which has vivid red foliage decorated with green flecks or stripes, and ‘Thai Black Stem’, below, which is distinguished by its striking dark brown to black pseudostems.
DEVELOPING FRUITING BANANAS FOR TEMPERATE CLIMATES

Successful production of banana fruit is still only feasible in tropical or subtropical regions. In the United States, this means southern California and Hawaii. There are a few microclimates in USDA Zone 8—primarily in the Southeast and parts of Texas—that will support fruiting, but this is contingent on there being no hard freezes during the 18 months or more required for growth (around 330 days) and flowering to fruit ripening (100 days or more).

Thanks to speedier propagation of banana cultivars through tissue culture, more and more potential selections with a shorter fruiting cycle are entering the pipeline, such as ‘Hua Moa’ and ‘Seminole’. One of the most promising new introductions is ‘Viente Cohol’. Plants are not frost hardy, but given protection, they have survived Georgia winters, where trials at the University of Georgia in Athens indicate it might be possible to grow bananas for commercial fruit production. Active growth starts around April 1 and fruit ripens by the end of September. Yields averaged 30 or so pounds of fruit per stalk, as compared to the 120 pounds of the traditional commercial variety, ‘Cavendish’.

Other trials of ‘Viente Cohol’ have found that an 18-inch-tall plant in a 35-gallon tub could produce edible fruit after only a six-month growing season. Ongoing evaluation may show that even smaller plants and smaller tubs could work as well. I have high hopes for ‘Viente Cohol’ and will be trying it in my Kansas City, Missouri, garden this year. —J.W.W.

Many gardeners love variegated foliage splashed with bold streaks of gold or silver. Bananas are no slouch in this area, but there’s one variety at the top of most fans’ wish list. This is a Hawaiian cultivar said to be reserved for consumption only by royalty. It has always been uncommon and somewhat expensive to acquire, and there has been much confusion about its name, which is variously listed as ‘Ae Ae’, ‘Ae‘ae’, or ‘A’e A’e’. Recently, one of Hawaii’s leading banana researchers and the USDA have suggested a more appropriate name is ‘Manini’, which, if nothing else, is easier to pronounce.

There is a mystique about growing ‘Manini’. Some say it is difficult and has specific soil needs. Others declare no special care is necessary for it to thrive. Full sun will burn the whitest parts of the foliage, but the hardest part of growing this variety is acquiring a good start; it can be slow to produce pups and it does not come true from tissue culture. Now and then bud sports show up in pups or in tissue culture of other varieties, but these are rare and often less stable. With good care, ‘Manini’ will grow to 20 feet or more in a tropical climate.

A much sought-after variegated banana cultivar is ‘Manini’, which was selected in Hawaii.
GROWING BANANAS

Small banana plants are readily available at most garden centers. Even a small start in a four-inch pot or gallon nursery container can produce big results. They should be planted after the last frost in rich soil augmented with ample compost and slow-release fertilizer, and provided lots of room. Many full-size varieties can easily reach eight feet before frost kills the foliage.

Most bananas grow best in full sun or at least half a day of sun. Some varieties, however, need protection from both sun and wind. You can usually tell by examining the leaves: If they feel thin and delicate, they’ll need a more sheltered location; if they are stiff and have good substance, they will probably relish full sun and tolerate wind with minimal damage.

Water bananas consistently throughout the season and top dress regularly with a fertilizer of your choice. I use Milorganite since it is mild and doesn’t generally burn tender growing tissues. Fertilizer stakes also work well.

In winter, the hardier types grown in the ground can be protected by covers and mulch. Tropical varieties should be grown in large tubs and brought indoors before frost. It is also possible to remove all foliage, dig the entire plant, remove most of the root ball, pack it in newspapers or a plastic trash bag, and store it in a cool but frost-free area such as a basement. Replant it outdoors the following spring, after frost.

As ornamentals or edibles, bananas and their relatives have so much to offer and will continue to increase their appeal to gardeners everywhere as new cultivars are developed. Next time you peel America’s favorite breakfast addition, ponder the idea that someday you may be able to grow your own bananas in your backyard or buy them at your local farmer’s market.

Jim Waddick is the author of numerous gardening articles and books, including Iris of China, The Genus Paeonia, and Bananas You Can Grow. His passion for plants of all kinds is reflected in his garden in Kansas City, Missouri. (For more about him, read the profile “Collected Treasures” published in the May/June 2010 issue of this magazine.)
BEING A successful perennial matchmaker involves more than selecting flowers that might look pretty together. It’s about choosing plants that will grow well in the same conditions; that bloom at the same time (or at different times, if you’re trying to extend the show by weeks or months); and that offer variety as well as similarities in sizes, shapes, and colors. That’s a lot of information to process all at one time, though, especially when you’re trying to plan an entire border.

Fortunately, you don’t need to juggle all of those details at once. A garden is made of plant groupings, groupings start with pairings, and pairings start with a single plant. When you focus first on just one perennial (one you already have in your yard, perhaps, or one that has caught your eye at your local garden center), the whole design process suddenly seems much more manageable.

Once you’ve set your sights on a perennial that needs a partner, it’s time to go into fact-finding mode: gathering key details about that plant, deciding what effect you want to create with the combination, and then coming up with a list of potential co-stars. I’m still a fan of using the old-fashioned pencil-and-paper gardening notebook for keeping track of details when I’m working out combinations. You may prefer to keep your notes on your computer, though, or in an online account where you can gather ideas and plant details, such as Pinterest.

Facing page: The warm-hued flowers of ‘Milk Chocolate’ and ‘Nona’s Garnet Spider’ daylilies (Hemerocallis sp.) in the foreground blend well with the chartreuse foliage of Spiraea thunbergii ‘Ogon’ (Mellow Yellow®) and ‘Isla Gold’ tansy (Tanacetum vulgare), and burgundy-leaved plants such as ‘Oakhurst’ pineapple lily (Eucomis comosa) and ‘Red Majestic’ contorted hazelnut (Corylus avellana). Above: Siberian irises (Iris sibirica) make pleasing partners for ‘Purple Sensation’ alliums, but adding in the taller blooms of ‘Gladiator’ allium creates a truly sensational combination.
TAKE A GOOD LOOK
Let’s start with the plant features that you can see for yourself—in pictures or actually out in the garden.

Color. Flowers tend to be the first features that catch our eye, but they’re not the only sources of color. Many perennials offer colors (other than the usual range of greens) in their leaves: yellows, reds, oranges, and purples in a wide range of tints and shades, as well as striping, edging, spotting, and all sorts of other markings. You may also find unexpected colors in buds, stems, and seed heads. Make a note of all the color features your focus plant has to offer.

Leaf and flower forms. Individual leaves and flowers may have distinctive shapes that are worth considering when planning perennial partnerships. Long, narrow leaves, like those of yuccas, and long, slender flower clusters, like those on foxgloves (Digitalis spp.), have a decidedly spiky look, for instance. Leaves that are divided into many smaller lobes or leaflets, as on yarrows (Achillea spp.), have a lacy or ferny form, while leaves that are circular to oblong, as on wild gingers (Asarum spp.), have a rounded form. Besides spiky, some distinctive shapes among flowers and flower clusters include cupped to bowl shaped, bell shaped, funnel to trumpet shaped, daisy form, starry, globe or ball shaped, plumes, and umbels (flat-topped to domed clusters). Contrasting forms are valuable for adding variety when you are working with a limited range of flower or foliage colors.

Season. Timing is another key consideration in combinations. While you can’t know to the day (or even the week) when a particular perennial is going to begin blooming each year, it’s useful to have some idea of when it’s likely to start, how long its main flowering period is going to last, and whether the plant is likely to bloom again later in the season.

Record bloomtime observations from year to year, and make a note of the date when the leaves look good, too: Do they appear early in the growing season, or are they slow to come up, not emerging until even early summer? Do they remain attractive after the plant blooms, or do they look tattered or even disappear after the flowers finish? You may also notice special seasonal changes, such as a pink, purple, or reddish leaf blush in spring; a shift from green to shades of red, purple, orange, or gold in fall; or leaves that persist through winter. Other noteworthy seasonal features beyond bloom include interesting or particularly long-lasting stems, seed heads, seeds, and berries.

Height. Obviously, if you’re hoping to pair two perennials for a spectacular flower show, they need to bloom at around the same height so the flowers are near each other. You can’t have all of your combinations be the same height, of course, or you’d have a pretty boring border, but you do want the plants to be reasonably in proportion to one another.

When you take into account the height of the flowers, also look at the whole plant. Some perennials produce most of their leaves close to the ground, with their flowers on separate, taller stems. Others
bloom atop the same stems that hold the leaves, and still others produce leaves and flowering stems of varying heights. That’s why some perennials can be very different heights when they’re in bloom compared to when they’re not.

Many tall perennials are available in more-compact cultivars, so if you want to use a particular perennial in a combination with a shorter companion, you may be able to find a selection to suit the purpose. It’s also possible to reduce the height of some perennials by well-timed pinching or pruning; research and note-taking are key to your success with this approach.

**Habit.** Habit—the overall shape of a plant when you look at it from the side—should be considered when choosing compatible companions. Some perennials, such as summer or garden phlox (*Phlox paniculata*), have a distinctly upright, vertical habit; others may be vase-shaped, mounded, or low spreading. Pairing perennials with different habits adds interesting variety even when the plants are not in flower. It also lets you fit more plants into a given area, because you can tuck mounded plants close to the bases of upright ones or let low-spreading companions fill in around mounded partners.

**Textural traits.** Texture, in reference to the surface appearance of a plant, may be fine, medium, or bold. (You’ll sometimes see the term “coarse” instead of bold, though that’s a rather negative word for a positive trait.) Many perennials have a medium texture, but some have particularly small or slender leaves and/or flowers, giving them a “fine” texture: Think of ferns, for instance, or ornamental grasses. Bold perennials, such as ligularias (*Ligularia* spp.), have large, broad leaves or especially large flowers. Texture can also refer to the surface of individual leaves: whether they’re smooth (matte or glossy), rough (due to short, bristly hairs), or even fuzzy (with silky, closely packed hairs). Thinking about these aspects of texture when you choose a co-star for your focus perennial is another way to mix things up for interest beyond flowers.

**DO YOUR HOMEWORK**

Even potentially stunning combinations aren’t worth much if they’re not based on perennials that will actually grow in your garden. Once you’ve been gardening for a number of years in the same place, you can often know at a glance if a given combination is likely to work in
your yard, but until then, you’ll need to do a bit of research.

It’s useful to have at least one or two general perennial encyclopedias published within the last 10 or so years, so they’re likely to include currently available plants and up-to-date information. If you’re new to gardening in general, it’s also handy to have one or more gardening guides written specifically for your state or region. Online sources can be invaluable as well, but here, too, try to find sites that are geared toward your local growing conditions as much as possible. A catalog or website that’s based in Australia or England may be misleading if you’re gardening in Maine or New Mexico—or anywhere in between, for that matter!

Consider the site. Healthy, vigorous perennials that are filled with flowers and lush leaves are beautiful in their own right, so when you pair them with others that thrive in the same light and soil conditions, you’re practically guaranteed a gorgeous garden. Granted, plants can be surprisingly adaptable, sometimes performing respectably in much more sun or shade or wetter or drier soil than they normally prefer, depending on the specific conditions available in a particular site. As you gain experience, you can take advantage of your observations and create combinations that look great in your yard but probably wouldn’t work well elsewhere. When you’re just getting into gardening, though, or when you’re designing for a new garden or an unfamiliar site, you’ll get the best results by choosing partners with very similar light and soil preferences.

Take climate into account. Climate considerations are important. One way to judge whether particular perennials are likely to thrive in your area is by looking at their USDA Plant Hardiness Zone ratings, which are based on average minimum temperatures they can tolerate. So if you live in Zone 4, for example, you can guess that a perennial rated for Zone 6 is unlikely to survive an average winter in your area.

Of course, tolerance for cold is just one factor in determining where a plant will grow. English lavender (Lavandula angustifolia), for instance, may survive winter as far north as Zone 3 if the soil doesn’t stay wet and if there’s a thick blanket of snow to protect it from cold and wind. That same plant, however, may struggle to overwinter in a Zone 6 garden with little or no snow but ample winter rain that keeps the soil moist for months on end. That’s why you may find very different zone ratings for the same plant. Gardeners in different regions have varying experiences and take those into account when they write about their favorite plants.

You’ll notice that most references don’t give a single zone number; instead, they list a range, such as Zones 5 to 9. In this case, it means that the plant is likely to perform well as far north as Zone 5 and all the way south through Zone 9. Again, this rating tends to be subjective, since the USDA Hardiness Zone Map doesn’t take into account other aspects of climate, such as humidity, the amount and seasonal distribution of rainfall, and summer temperatures. There are maps that take one or more of these factors into account—such as the American Horticultural Society’s Plant Heat Zone Map, which provides insight into a plant’s heat tolerance—or that are customized for specific areas of the United States. However, they’re not consistently used by all references, so you may or may not be able to find this specialized information for the perennials you’re interested in. Don’t worry about that, though: Just do your best to find perennials that at least a few books or catalogs agree should be fine in your area.

GET CREATIVE

Whether you’re just starting with perennials or are a longtime gardener who wants to fine-tune your plantings for a more cohesive look, remember that the key to creating stunning plant medleys is to think like a matchmaker. Start with a favorite perennial and find it some compatible companions!

Join us as we venture to extraordinary garden destinations around the world. The 2016 trips are sold out, but we’re planning spectacular offerings for 2017 and 2018 that you won’t want to miss!

**SPRINGTIME IN JAPAN:**
**INSPIRING GARDENS & LANDSCAPES**
April 4–17, 2017

**GARDENS OF SOUTHERN SCOTLAND**
May 16–25, 2017

**GARDENS OF GENOVA, THE ITALIAN RIVIERA & FLORENCE**
September 5–14, 2017

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

**IGUAZU FALLS POST-TOUR**
November 8–10, 2017

**GARDENS, WINE & WILDERNESS:**
**A TOUR OF NEW ZEALAND**
January 2018

For more information about the AHS Travel Study Program visit [www.ahs.org/gardening-programs/travel-study](http://www.ahs.org/gardening-programs/travel-study), e-mail development@ahs.org, or contact Susan Kleist 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.”
Pick up any garden book or magazine and you are likely to find back-breaking recommendations for creating ideal soil prior to planting: Bring in voluminous amounts of amendments and dig them in to a depth that may seem impossible without machinery. Or haul in loads of soil from elsewhere to build up a deficient layer of existing soil. The expense and effort of these endeavors are rarely matched by actual achievement of the goal, which is to have great soil.

Soil is indeed the basis for a healthy, productive garden, and I agree that time should be devoted to preparing it, but I don’t believe good soil can be manufactured in a single day—or even a single season—no matter how much compost you add or how much soil you move. Rather, I opt for a slower but reliable approach that encourages nature to do its best in creating and sustaining good soil. Supporting this approach requires changing our mindset.

The first thing we must realize is there is no ideal soil. I’ve gardened in many places, and gardeners everywhere generally complain about having poor soil. Admittedly, builders generally don’t worry about the soil they leave behind for those of us who garden, but much of the dissatisfaction comes from our desire to grow things that simply won’t do well in the existing soil conditions. So as a corollary on how to be happier with your garden, start by choosing plants that are suited to the prevailing soil conditions in your region.

**Begin by understanding your soil.**

Good soil is full of life and incredibly complex. It is seldom consistent from one place to the next, even within your own garden. If you are fortunate enough to garden on land that hasn’t been profoundly disturbed by construction, you can start by looking up soil survey data for your property. Use your favorite search engine and input the name of your county and the phrase “soil survey,” and you are likely to find a detailed report if one exists. This report will give you valuable information about the characteristics of the underlying soil. For instance, the survey for my Maryland garden tells me the soil is Fallsington sandy loam. Sandy loam sounded good until I read in the description that the water table is seasonally within a foot of the surface and it is poorly drained. I can vouch for that. Plants that like well-drained soil don’t grow well for me, but wetland plants do.

If you garden on land that has been disturbed by construction—especially recent construction—such as you would find in many urban and suburban areas, a soil survey will not be as helpful because the configuration and content of what’s under the top layer of soil will not reflect natural conditions. The soil that you have is likely from a great depth, or even from another nearby location, or the original topsoil may have subsoil spread on top of it. All too often, the subsoil layer is deeper than the two-foot-deep test pit usually recommended to characterize a given soil. So you’ll have to dig quite a few holes for a more accurate assessment of what is there.

**No quick fix.**

Once you know what you are dealing with, you can start making long-term plans to build up the soil. While it’s tempting to add bags or truckloads of so-called topsoil in an effort to speed up the process, I urge you to consider where that soil comes from. Often, commercially available soil is a combination of sandy subsoil with compost and other additives; it lacks the chemistry and microbial ecology of real topsoil.

Also, soil is heavy, so it requires expending significant amounts of energy—both from labor and fossil fuel—to get it to your garden. Instead of thinking about that new garden bed as a weekend objective, approach it as a multi-year project based on bringing in needed organic matter to transform what you already have into better soil.

**Creating a new garden the slow way.**

Before you incorporate any type of amendment, you need to address how well your soil drains. (For more on this, see “Garden Solutions” in the November/December 2015 issue.) If the soil drains poorly, you have three options—build the level of the soil up from resources on your own property, install perforated piping that will carry away excess water, or opt to only grow plants that do well in wet soils. In building raised beds, you can use soil from your property if you are building a water garden or patio, but be
Sure if you are excavating subsoil that you remove any topsoil on the receiving site and set it aside before adding the subsoil. Then put the topsoil back on top of the subsoil you added. If you are using a perforated pipe for drainage, be sure that the outlet for the pipe is at its lowest point.

The next step is to eliminate existing vegetation. Herbicides can do the job quickly, but a layer of cardboard, black plastic, or other opaque material will work just as well by smothering the unwanted plants, although it may take an entire growing season. With hard-to-kill weeds like bindweed, horsetail, and thistle, an opaque mulch often works better than herbicides.

When the vegetation is dead, begin feeding the soil with regular applications of organic matter such as shredded leaves, compost, and wood chips to the top of the soil to improve its texture. This layer should be no more than four inches deep. As the amendments decay, add more. You don’t need to dig them in. In fact, any type of digging or rototilling creates sharp boundaries in the soil, making for differences in moisture and texture that hinder root growth. The presence of fresh amendments alone will stimulate a variety of organisms that will feed on them and create a gradual transition from high levels of organic matter near the soil surface to lower levels deep below. This gradual transition allows plant roots to spread and grow; it also preserves the capillary action that allows moisture from deep in the soil to move upward in times of drought, reducing the need for irrigation.

Amendments such as lime, stone dust, and organic fertilizers can simply be scattered on top of the soil. Rainfall and the activity of soil organisms will distribute these with time. Avoid rapid-release fertilizers, which are salt-based and can injure soil life.

You can grow cover crops such as winter rye and clover while you are building up your soil. The vegetation will add organic matter to the soil, prevent erosion, and also help keep weeds at bay. After a few years, you should have a sufficient layer of loose, rich topsoil that is ready for planting. Keep your soil healthy by mulching with organic matter from time to time.

Since I’ve begun to take the slow approach in my own garden, I’ve been struck by the degree to which soil compaction has been relieved after several years. The non-stop action of worms, insects, fungi, and bacteria does a much better job than my digging fork ever could, and I get to enjoy my garden without breaking my back.

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

---

**AILING OLIVE TREES**

I have two olive trees in my yard that have grown slowly but steadily for four years. Recently the tips of the leaves turned a brownish yellow. Is this caused by a disease or lack of water or nutrients?

Lack of water would explain this, especially if the discoloration affects all the branches of both trees. If water is adequate yet you still see the symptom as new growth emerges, it might be caused by boron or copper deficiency. These elements are only needed in small quantities, however, so soil deficiencies are rare.

Your olive trees might also be infected with *Xylella fastidiosa*, a bacterium that causes leaf scorch. Its impact is most pronounced in times of drought, and its symptoms are often confined to one or several branches. There is no treatment for the disease, but trees may live for many years after being infected.

**ROUTINE PRUNING NOT REQUIRED**

When should I prune crapemyrtles and English boxwoods?

Other than removal of dead branches and some thinning, these plants generally don’t benefit from regular pruning.

Many people do not understand that most crapemyrtles (*Lagerstroemia* spp.) are small trees rather than shrubs. It’s best not to prune them at all, other than thinning interior branches to allow better airflow.

While English boxwood (*Buxus sempervirens* ‘Suffruticosa’) is often sheared, this practice creates a dense, thin layer of growth at the perimeter of plants that blocks light and airflow. These conditions favor a fungus that causes blight on large portions of plants. Proper pruning of English boxwood consists of thinning the branches as needed to allow better air circulation within the shrub. To thin a boxwood, remove select branches in the outmost layer to the point where the interior branch structure begins to be visible. Thinning can be done in early winter and the trimmings can be used in holiday decorations.

Send your gardening questions to Scott Aker at saker@ahs.org (please include your city and state with submissions).
ALASKA IS a land of geographic superlatives—the biggest, the tallest, the coldest. But tucked within the temperate rainforest climate of Alaska’s Inside Passage, a horticultural gem claims a more modest superlative. The youngest public garden in Alaska, the Jensen-Olson Arboretum (JOA) in Juneau is an expansive and idyllic garden.

JOA, which opened in 2007, owes its existence to the vision of Caroline Jensen, a Master Gardener and longtime Juneau resident. Upon her death in 2006, Jensen donated the 14-acre site, which is located 23 miles north of downtown, to the city under the protection of a conservation easement stipulating that it be managed for biological diversity. She wanted it to be a place for the people of Juneau that both “teaches and inspires learning in horticulture, natural sciences, and landscaping” and preserves “the beauty of the landscape for pure aesthetic enjoyment.”

PRIME LOCATION FOR PRIMROSES
The property’s picturesque location benefits from a mild micro-climate. Oriented to the south, the gently sloping site basks in the afternoon sun and warmth reflecting off the still water of the adjacent harbor. The tidal area’s maritime climate and well-drained soil proved to be the perfect conditions for cultivating primroses (Primula spp.), a genus that Jensen loved. In addition to her primrose collection, she created three acres of gardens with both native and introduced species.

“It was basically a bush Alaska homestead,” says Merrill Jensen, JOA manager and horticulturist, who is not related to the former owner. “She rolled up her sleeves and took something that was pretty basic and waved a magic wand over the years and transformed it.”

Under Merrill Jensen’s leadership, JOA’s collection has expanded to include more than 200 Primula species and cultivars, a few of which are quite rare. In 2012, the American Public Gardens Association’s Plant Collections Network designated it the largest documented collection of this genus in North America—quite an achievement for such a young garden. These primroses, now scattered throughout more than 40 beds, provide a welcome early-spring explo-
sion of color that continues until the end of summer. One of Merrill Jensen’s favorites is *P. secundiflora*, an Asian species he admires for its “really cool black-and-white-striped calyx. The perfect little hoops face down and catch the raindrops,” he says.

**THEN AND NOW**

Of course, the arboretum offers more than just primroses. Another significant feature is the large, 95-year-old **vegetable garden** that had been part of the original homestead and once helped feed the early gold miners. Vegetables of all kinds thrive in the rich soil, and the ample harvests are donated to local food banks.

Along with the vegetable garden, JOA has added specialized gardens such as the **Alpine and Subalpine Garden**. This pocket-sized display of plants from the surrounding alpine areas allows visitors to encounter plants normally found at much higher elevations. The nearby **Bog Garden** showcases carnivorous beauties such as sundews (*Drosera* spp.) and butterworts (*Pinguicula* spp.).

The arboretum boasts several trees estimated to be about a century old, including an apple tree planted by the original homesteaders. Unfortunately, some of these venerable trees have been badly damaged by bears, so the JOA has been diversifying its collection with new trees and shrubs whenever it has to replace an older specimen.

Plans are also underway to build a new indoor educational facility, complete with a botanical library.

**MORE SUPERLATIVES TO COME**

The future will undoubtedly hold more superlatives for the youngest arboretum with the largest primrose collection. As Merrill Jensen says, it is “the most stunning location for a public garden anywhere.”

Mary S. Chadduck is an editorial intern with *The American Gardener*.

---

**Additional Information**


- **Hours**: Open year round, Wednesday–Sunday, 9 a.m.–5 p.m.
- **Admission**: Free.

Other nearby sites to explore:
Recommendations for Your Gardening Library

Gardens of Awe and Folly

VISITING GARDENS wherever I travel is my greatest delight—something my friends don’t quite understand. “Why?” they ask, “Don’t you see the same plants over and over?” In her new book, Gardens of Awe and Folly, Vivian Swift has the best answer to this question: “If all you ask of a garden is What?, then all you’ll probably get in reply is a planting list. But ask, instead, Why? How? When? and, most of all, Who?, and then you’re in for a nice, long conversation,” she writes.

In this book, Swift shares “conversations” she had with nine gardens around the world “that had a lot to say.” Not actual conversations with the gardeners, mind you, but the stories found within and around each garden. Swift packages them into what she calls “an illustrated book for grownups,” complete with her own charming watercolor art, anecdotes, thought-provoking collages, insightful quotes from literary figures, and life lessons drawn from her travel experiences.

Of course, the voices of individual gardeners are also part of these conversations. For example, readers will meet New Orleans resident Karen Kersting, who “declared final victory over Hurricane Katrina by planting a rose garden” where her FEMA trailer had been. She accented this garden with an antique French gate she called a Katrinket: “a ridiculously expensive, indulgent, and therapeutic thing that people bought in the throes of digging out of the muck and misery.” Kersting planted exactly 12 kinds of roses because, “what lady doesn’t deserve a dozen roses?”

Once you have immersed yourself in these lyrical garden adventures, you will want to keep the book close by. Then in an instant you can open it again to vicariously celebrate a stunning sunset in Key West, luxuriate in the shade of native bamboo in Morocco, feel the introspectiveness of a winter rain while wandering a parterre garden in Scotland, contemplate autumn leaves on a sunny October day on Long Island, and inhale the heady fragrance of roses in New Orleans. Best of all, this book will prepare you for your own conversations with gardens no matter where you travel.

—Linda Larson

Linda Larson inspires others to visit gardens wherever they go through her blog, A Traveling Gardener (www.travelinggardener.com). When not traveling herself, she gardens in Mesa, Arizona.

The Plant Lover’s Guide to Magnolias

ONE OF THE newest additions to Timber Press’s The Plant Lover’s Guide series—a wonderful set of gardening books for home gardeners and professionals alike—this volume spotlights the diverse genus Magnolia. In it, Andrew Bunting shares his extensive knowledge of and experience with these plants, acquired through a long career at various botanic gardens and involvement with the Magnolia Society International.

Introductory chapters offer a fresh perspective on the importance and function of magnolias in the garden. “While magnolias may be mostly known for their spring flowers,” Bunting writes, “there are many options that offer interest throughout the year.” He concisely explains their complex taxonomy, global distribution, and cultivation as one of the most popular flowering trees in the world.

The core of the book is an encyclopedic description of deciduous and evergreen magnolia species, varieties, and cultivars ideal for various garden settings. Under each plant name, detailed information about size and habit, hardiness zones, flowers and foliage, cultural needs, and native habitat is provided. Vivid color photographs illustrate the beauty and diversity magnolias offer.

A final chapter covers proper growing conditions and maintenance needed to keep magnolias flourishing, as well as propagation methods. Especially helpful appendices include lists of botanical gardens with outstanding magnolia collections and specialty nurseries where magnolias can be purchased.

What I found most refreshing about the book is that it encourages gardeners to step outside the norm and explore the virtues of stellar but lesser known species. This leap onto the road less traveled is sure to excite the truly passionate gardener looking to include more unusual species and cultivars.

Bunting’s real fondness for magnolias and his extensive knowledge about the genus are evident on each page. His evocative writing style and attention to detail mesh into an educational and inspiring book that is in-depth yet readable. It is ideal for really getting to know this popular and diverse genus.

—Vincent A. Simeone

Vincent A. Simeone is a professional horticulturist, lecturer, and author whose most recent book is Grow More With Less: Sustainable Garden Methods (Cool Springs Press, 2013).
IN SUMMER, lying in my hammock next to the garden, I can almost hear seeds sprout, flowers bloom, and vegetables ripen. As a bee buzzes by, I can’t help but muse that all this fecundity would silently ebb away without pollinators. So in celebration of all the busy bees and other creatures that pollinate our plants, here are some recently published books sure to increase your understanding and appreciation of these essential garden denizens.

**Pollination Power** by Heather Angel (University of Chicago Press, 2016, $40) is a sumptuous photographic documentary of floral structures and pollinators found around the world. Angel’s crisp illustrations portray the methods plants use to achieve pollination and the specific visitors—often not the ones you would expect—that transfer pollen from one flower to another. Thought-provoking discussions and captions further elucidate these intricate relationships.

Among insect pollinators, bees alone boast an impressive diversity—there are over 4,000 bee species in North America! **The Bees in Your Backyard** by Joseph S. Wilson and Olivia Messinger Carril (Princeton University Press, 2015, $29.95) is an easy-to-use and entertaining reference that can help you identify bees you might find cruising around your flowers. It also includes a chapter on regional housing and plant suggestions for attracting these beneficial insects.

It is a short step from identifying bees to actively encouraging and caring for them. **The Bee Book** (DK Limited, 2016, $25) provides a concise overview of bee biology, then moves briskly on to housing plans and habitat suggestions, lavishly enhanced with images on each page. Building any of the solitary bee structures or tailoring yard plantings for bees would make a fun weekend project. For those interested in a more hands-on experience, the second half of the book covers keeping honeybees.

**Following the Wild Bees** (Princeton University Press, 2016, $22.95) is the perfect guide in **Pollinator Friendly Gardening** (Voyageur Press, 2015, $21.99). She gives suggestions for addressing the specific needs of each pollinator while keeping gardeners’ available resources in mind, along with handy lists of appropriate plant varieties. The last chapter about research projects involving bees, butterflies, hummingbirds, and bats will be of particular interest to budding citizen scientists.

Self-described “beevangelist” Doug Pudie is on a mission to help people to take a more active role in helping pollinators through keeping honeybees. **Backyard Bees: A Guide for the Beginner Beekeeper** (Trafalgar Square Publishing, 2016, $27.95) is his approachable instruction manual for doing just that. Aspiring apiarists will appreciate his clear directions and plentiful illustrations that demystify basic hive management, from equipment and proper location to troubleshooting and ways to enjoy your honey harvests.

Bee hunting—the locating and observing of a wild bee hive—is the next eco-hobby and noted biologist Thomas D. Seeley is the perfect guide in **Following the Wild Bees** (Princeton University Press, 2016, $22.95). Drawing from his own experience, Seeley describes the steps involved, from trapping and studying wild bees to tracking them back to their home. Short sidebars explain the science behind his methods and honeybee behavior.

—Mary S. Chadduck, Editorial Intern
THOUGH CHERRY and paste type tomatoes have their fans, most gardeners reserve the act of drooling for the colorful, meaty monsters of the season—often called the “beefsteak” varieties. The term first appeared in an 1869 seed catalog, describing slices of a specialty tomato as being “as solid and meaty as a beefsteak.”

Beefsteak varieties have small seed cavities and a preponderance of flesh, making them easy to slice and perfect on sandwiches. Although the term was originally applied to red-flesh varieties, beefsteak tomatoes are now available in a rainbow of colors. Flavor-wise, they span the entire spectrum from mild to intense, sweet to tart, and simple to complex.

GROWING GUIDELINES
Ideal conditions for growing beefsteak tomatoes are the same as for any tomato variety: at least six hours of direct sun, rich soil that drains well but has good moisture retention capability, and a pH between 6.0 and 6.8. A loamy garden soil amended with compost provides a perfect growing environment. Beefsteak tomatoes also will do fine in large containers or straw bales, given sufficient feeding and watering.

Growing tomatoes from seed increases your variety options. Start seeds about eight weeks before the last expected frost. Keep them evenly moist and provide plenty of light. Transplant seedlings into the garden after the soil has warmed and all danger of frost has passed. When planting, bury as much of the stem as possible for additional root formation, leading to stockier plants. This is also a quick “fix” for leggy seedlings.

Water plants as needed to prevent wilting during the most intense afternoon heat, especially after fruit set, and fertilize regularly to keep plants healthy, vigorous, and productive. Plants grown in containers and straw bales, which have a smaller reservoir to draw from, benefit from weekly doses of fertilizer.

Mulching has numerous benefits, including preventing the spread of disease caused by soil splashing onto lower leaves, reducing evaporation of water from soil, and minimizing weeds.

Most beefsteak varieties are indeterminate—tall growing and vigorously spreading until killed by frost or disease. Vertical growth can be encouraged using a variety of methods: caging, staking, or a technique called the Florida Weave, which trains tomatoes vertically by weaving twine through closely spaced vertical posts at several heights.

Additional fruiting stems, or suckers, form at each joint between the main stem and foliage branch; some people remove these suckers to control growth. But if you are caging the plants, no pruning is necessary.

PESTS AND DISEASES
A variety of pests are attracted to tomato plants and fruits.

Aphids, which cause leaf curling as they suck the plant’s juices, can be removed with a strong spray of water. Fruit worms eat holes into tomatoes, then consume the fruit from the inside; green tomatoes with holes can be removed and destroyed. Hornworms consume tomato foliage; these can be located by spotting the small brown balls of fecal matter below the plant and looking upward.

Brandywine’ is a popular heirloom beefsteak tomato that has been traced back to the late 1800s. It is available in both red and pink strains, both which offer a full-bodied flavor.
to find the caterpillars; these should be removed and destroyed unless they are covered with the distinctive white pupae of a parasitic wasp.

Squirrels and birds can cause damage to ripening fruit. Ensure that there are suitable water and food sources to draw them away from your crop or use physical barriers such as netting. Deer are also destructive both to plants and fruit. The only guaranteed protection is a tall fence, but I’ve had good luck using a sprinkler attached to a motion detector.

Several diseases plague tomatoes. Fusarium wilt and verticillium wilt are both caused by soil fungi. Sudden yellowing and wilting of foliage are indications of the presence of these diseases. Since nothing can be done once symptoms of these diseases are widespread, remove the plants and discard them in the trash. The following year, select resistant varieties and plant them in a different location; sterilize cages and stakes using a bleach solution.

Early blight (Alternaria) and septoria leaf spot are both fungal diseases that hit above the soil line, often infecting lower foliage due to splash of the spores onto the plant during a rainstorm. Heat and humidity encourage early blight, whereas cooler, cloudy, or wet conditions favor septoria. Both announce their presence via spotted and dying foliage. Mulching to prevent soil splash is the best way to prevent or delay onset. Once it is noted, removal of the lower, affected foliage can slow the spread of the disease upwards.

Some tomato problems are caused by weather conditions. Cat-facing is familiar as the ugly, scarred blossom end seen on very large fruit. It often affects just a few tomatoes on a plant and is related to the weather conditions when the fruit sets. Cracking occurs when the tomato skin can’t expand fast enough, often due to heavy rain or overwatering. Picking fruit at half ripeness helps to avoid cracking.

Blossom end rot—a dark water soaked spot on the blossom end—indicates that the plant experienced stress after setting fruit. Mulching and regular watering are recommended. It is also an indication that your soil is lacking sufficient available calcium; add a bit of lime if this is the case.
RECOMMENDED VARIETIES

Red: Both ‘Aker’s West Virginia’ and ‘Andrew Rahart’s Jumbo Red’ are meaty, one-pound-minimum beauties with intense, well balanced flavor.

Pink: ‘Brandywine’ and ‘Dester’ are absolute flavor knockouts. The former is more temperamental and variable season to season; the latter is more consistent in my experience.

“Black”: ‘Cherokee Purple’ and ‘Cherokee Chocolate’ look the same when sliced, but the lovely hue of ‘Cherokee Purple’ comes from the clear skin covering the deep crimson flesh. The rich hue of ‘Cherokee Chocolate’ comes from the yellow skin.

Yellow: ‘Lillian’s Yellow Heirloom’ is pale yellow with intense flavor, ‘Hugh’s’ is earlier and sweeter.

Orange: ‘Kellogg’s Breakfast’ is deep orange and sweet. ‘Yellow Brandywine’ boasts a more pale orange hue and a snappy bit of tartness.

Green: The skin of ‘Cherokee Green’ turns yellow when ripe, providing a helpful harvest time guide. It takes a bit more practice to identify the pearly pink hue signaling ripeness that appears on the blossom end of ‘Aunt Ruby’s German Green’ and ‘Green Giant’.

Stripes and Swirls: ‘Lucky Cross’ is similar to ‘Brandywine’ in size, plant habit, and flavor, but dressed in swirls of yellows and reds. ‘Ruby Gold’ shows the same colors, but its flavor is mild, sweet, and peachy. ‘Pink Berkeley Tie Dye’ sports varicolored vertical stripes that make it pop on the plate.

ENJOYING THE HARVEST

I’ve found that picking tomatoes at the blush stage—when color is appearing, but only about half way to the final destination—is the best bet for ensuring you get your prized specimens before birds, squirrels, and other critters find them. Store them on a kitchen windowsill for a few days and they will taste just as good as vine ripened specimens.

The obvious way to elevate these luscious, often colorful varieties to stardom is arranging thick slabs on a plate—an act that brings forth many “oohs and ahs”—or adding them to the proverbial “cover the slice of bread” type sandwiches. The meatiness, however, means that they can also play first violin in superb sauces and salsas.

Beefsteak tomatoes can beautifully. But if you have a nice big freezer, the easiest way to ensure you can use your harvest off-season is to freeze them. Simply wash and dry fully ripened, fresh-picked tomatoes that are free of damage, slip them into zip-top freezer bags, and stock your freezer. When you wish to use them in recipes, simply run warm water over them and slip off the skin. Though they won’t have that fresh tomato texture, the peak-of-ripeness flavor will be preserved in your recipes.

Craig LeHoullier is an heirloom tomato expert based in Raleigh, North Carolina. He is the author of Epic Tomatoes (2014) and Growing Vegetables in Straw Bales (2015), both from Storey Publishing.

Sources


**GARDENER’S NOTEBOOK**

Horticultural News and Research Important to American Gardeners

---

A myriad of colorful hybrid petunias available today—like this star-patterned one, left—descended from two less-flamboyant parent species: scented, white-flowered *Petunia axillaris*, top right, and scentless, purple-flowered *P. inflata*, bottom right.

**GENETIC REVELATIONS FROM HYBRID PETUNIA’S WILD PARENTS**

The ubiquitous petunias (*Petunia hybrida*) that bloom in splashy colors all summer long trace their lineage back to two wild but decidedly less flamboyant parents: *P. inflata*, which has small, scentless, purple flowers; and *P. axillaris*, which has larger, fragrant, white flowers. According to a paper published in the online journal *Nature Plants* in May, a team of plant scientists recently unraveled the genomes of these two species. When comparing these parent genomes with the hybrid petunia genome, the researchers discovered a few important puzzle pieces for understanding gene functions and evolution.

“The petunia is a model for how genetic formation changed with domestication,” explains Aureliano Bombarely, assistant professor of horticulture at Virginia Tech in Blacksburg and the study’s principal author. Researchers had expected that modern hybrid petunias would derive around half of their genes from each wild parent. Instead, the majority of hybrid petunia genes come from the white-flowered parent. This suggests that early breeders crossed the white variety back with the hybrid multiple times, perhaps to yield a variety with the fragrance of *P. axillaris*.

Petunias are members of the nightshade family (Solanaceae), as are relatives tomatoes and potatoes that had already undergone genetic sequencing. By comparing these genomes with those of petunia, the study found that all these plants diverged from a common ancestor around the same time as the extinction of the dinosaurs, some 30 million years ago. This research may prove useful for domesticating other wild plant species into useful crops. To learn more about this study, visit *Nature Plants* at www.nature.com/nplants.

**SPIDER VENOM KEY TO NEW PESTICIDE**

Vestaron Corporation, based in Kalamazoo, Michigan, is close to releasing a biopesticide purported to be safe for humans and certain beneficial insects such as bees, yet still deadly to pest species. Named SPEAR for “species at risk,” Vestaron’s product makes use of a somewhat surprising but effective ingredient: spider venom. “If spiders don’t kill insects, they don’t eat,” Vestaron President John Sorensen explains. “They’ve gotten to be good at that over the years.”

Scientists have long considered using spider venom as a pesticide, but recent advances in the science of genetics as well as the regulatory processes for biopesticides have finally enabled the development of a viable product. Vestaron derived its solution from the peptides—small proteins—

---

A researcher compares the degree of insect damage to leaf samples treated with SPEAR, conventional products, and other biopesticides. SPEAR proved as effective as conventional pesticides at controlling pest insects, though other biopesticides were only 80 percent effective.
IN MEMORIAM:
NORTHWEST FLORA CHAMPION ARTHUR KRUCKEBEGER
Arthur Kruckeberg, who spent much of his long career as a botany professor at the University of Washington in Seattle, died on May 25 at the age of 96. Kruckeberg specialized in Northwest flora and the ecology of serpentine soils, but had a passion for rare and unusual plants from all over the world. Many of these plants found their way into the showcase garden and nursery Kruckeberg and his wife, Mareen, developed over the course of several decades around their home in Shoreline, Washington. Following Mareen’s death in 2003, the couple’s four-acre property was eventually preserved as part of the City of Shoreline’s park system. At what is now known as the Kruckeberg Botanic Garden, visitors can enjoy the extensive and diverse collection of plants that are the couple’s enduring legacy.

Kruckeberg wrote several popular books on gardening and natural history. Among them is Gardening with Native Plants in the Pacific Northwest—a collaborative effort between Kruckeberg and his wife that was inspired by their personal garden. The American Horticultural Society named it one of 75 Great American Garden Books in 1997. He also co-founded the Washington Native Plant Society, and was instrumental in the formation of several other plant-related organizations such as the Northwest Horticultural Society and the Hardy Fern Foundation.

Visit www.kruckeberg.org for more information.

OUTSTANDING LANDSCAPE DESIGNER RECOGNIZED WITH PRESTIGIOUS AWARD
The Association of Professional Landscape Designers, based in Harrisburg, Pennsylvania, has announced its 2016 Designer of the Year: Carrie Preston of Studio Toop, a Dutch landscape design company. Preston originally lived in New Jersey, where she worked at a nursery for six years before her love of plants led her to the Netherlands. New Jersey still serves as an inspiration for her, and she says its “no-nonsense grunginess and natural exuberance” informs her practical and elegant designs. “I believe landscape design at its best,” she says, “is an intimate process that is about connecting people and place.”

Preston’s trend-setting designs are known for combining sustainability, biodiversity, and functionality in order to encourage a symbiosis between gardens and their owners to develop. Visit www.apld.org for more information about its awards.

NEW LEADERSHIP FOR AMERICANHORT
AmericanHort, a horticulture trade organization headquartered in Columbus, Ohio, has announced that Ken Fisher is its next president and chief executive officer. Fisher has 20 years of business experience as the leader of public and private companies, including the Coleman Company and Elmer’s. In his new position, Fisher will focus on the organization’s goals to “enhance existing offerings, while adding new value that will broaden our membership,” says Dale Deppe, AmericanHort board chairman.

AmericanHort formed in 2014 following the merger of the American Nursery & Landscape Association and OFA—The Association of Horticulture Professionals. The group supports almost 16,000 businesses and members across the country by advocating for them in business, policy, education, and research. For more information, visit www.americanhort.org.

Ken Fisher
that are among what Sorensen calls the “complex cocktail” of spider venom constituents that have no effect on mammals or beneficial insects.

Tests have shown that Vestaron’s product matches the efficacy of synthetic pesticides; most biopesticides are only about 80 percent as effective. And because this biopesticide targets different receptors within pest species, it still kills insects that have become resistant to conventional insecticides. Even better, the product is safe for a number of pollinators. When tested according to EPA guidelines on adult and larval bees, it “passed with flying colors.”

Vestaron plans to release the first of its biopesticides by the end of this year. For more information, visit www.vestaron.com.

PERMACULTURE ACTION NETWORK LAUNCHED THIS SPRING
The Permaculture Action Network (PAN) officially launched as an organization in April, after reaching its crowdfunding campaign goal of $15,000. This group of artists, community members, activists, and organizers across the country aims to bring permaculture to a wider audience. Permaculture, as PAN defines it, “is centered around utilizing the patterns and features observed in natural ecosystems, teaching us how to care for people, care for the earth and do so fairly.” PAN’s goal is to “connect people and empower them to take action that creates the world they want to see. We are committed to pushing community and sustainability to the center of society’s cultural narrative.”

The innovative way PAN achieves this vision is by touring the country with various musical groups. On the first such tour in 2014, for example, PAN organizers shared videos and information about permaculture projects with the audiences during each show. This allowed the group to reach people who had never heard of permaculture before, and inspire them to join a work event in their area on the following day or two. As a result, hundreds of volunteers turned up to build food forests and community gardens, or complete projects on local farms and gardens.

This year, PAN is touring with the folk-inspired band, Rising Appalachia. It will continue to “sustain and build what is already a growing network of local crews in different cities and bioregions,” says PAN organizer Ryan Rising, “that are aligning with musicians and artists to organize these community-powered action days whenever there is a concert or festival in town.” For more information, visit www.permacultureaction.org.

News written by Editorial Intern Natalie Sheffield with Associate Editor Viveka Neveln.
Container Gardens: Big Displays in Limited Spaces
by Rita Pelczar

Gardening in containers is a great option if you don’t have enough ground space for all the things you want to plant, or your only sunny spot is on the deck or patio. Containers with seasonally spectacular displays can deliver a splash of color to any part of the yard, enhance a front entrance, or add a charming accent to a porch. And appropriately sized planters can provide space for growing vegetables and herbs in any sunny location.

Containers come in all sorts of styles and materials to suit your needs. Here are some that have performed well for me and are worth considering for your garden.

**STRAWBERRY CONTAINERS**

Because of the smaller volume of soil in a container, potted plants generally need more supplemental watering than plants in the ground. Self-watering pots, which are equipped with built-in reservoirs from which water is wicked into the root zone via capillary action, can help reduce the frequency of watering. The Viva Self-Watering Rolling Planter from Gardner’s Supply Company (www.gardners.com) is made from UV-stabilized polypropylene and has built-in casters to facilitate moving it to just the right spot. The large round planter, which comes in bold colors such as red and purple, holds 40 quarts of soil and has a one-and-a-half-gallon water reservoir, which is filled through a hole in the container’s side. The planter is also available in a smaller size and in a square shape.

For a container with simple lines and an appealing texture—the raised dots creating the exterior texture are actually assorted words in Braille—consider the Dot Planter from Crescent® Garden (www.crescent-garden.com). Its patent-pending TruDrop® self-watering system includes a water level indicator that allows you to keep accurate tabs on how much water is in the generous reservoir. Thanks also to its double-wall construction, trials have shown that these planters can go for more than two weeks without refilling. Available in three sizes (16-, 20-, and 26-inch diameter) and an array of colors, these durable plastic planters look as good indoors as they do outdoors.

The Sussex Frost-Proof Resin Planter from Plow & Hearth (www.plowhearth.com) is also available in three sizes and can be used indoors or outside. With heights from 16 inches to 27-and-a-half inches, these containers are perfect for trailing plants that cascade down the sides. Although it looks like it is made of burnished copper, the planter is actually molded resin.

**MORE CONTAINER OPTIONS**

If your style leans toward rustic, you might find the Faux Wooden Bucket Planter, also from Plow & Hearth, just the thing. Constructed of all-weather resin, the 12-inch-wide container is finished to look like distressed wood. Available in three colors, it sports faux metal details.

Root Pouch Reusable Grow Bags from Gardner’s Edge (www.gardenersedge.com) are available in red, brown, or green.
and sizes from three to 30 gallons. I find the larger bags are easier to maintain—they hold more soil and don’t dry out as quickly. Made of a combination of recycled plastic, jute, and bamboo, they are breathable and sturdy. Each bag has two handles that assist in moving them around the garden. At the end of the season they can be washed, folded, and stored for use next year.

Gardener’s Best® Tomato Grow Bag Set from Gardener’s Supply Company includes a 12-and-a-half-inch-diameter bag and a five-foot-tall cage that fits securely into channels sown into the bag. While not large enough for a standard indeterminate tomato, this bag is well suited for compact determinate varieties or any of the new dwarf tomatoes (for more on dwarf tomatoes, see “The Worldwide Dwarf Tomato Project” in the January/February 2016 issue of this magazine).

**TAKING CONTAINER GARDENS TO NEW LEVELS**

The **Triple Sphere Topiary Frame** from Gardener’s Supply is an elegant addition to any large container. Use it to support a flowering vine to create a tall colorful accent; alternatively, you can train ivy or creeping fig to cover the spheres for a dramatic foliage display that can be brought indoors for winter. Made of heavy-duty, powder-coated steel, the eight-, 12-, and 16-inch-diameter spheres rise to an overall height of 48-and-a-half inches. Four six-and-a-half-inch legs securely seat the frame into the soil in your pot.

Slightly elevating your container garden increases air circulation and promotes drainage. If your containers sit on a patio, porch, or deck, you will also want to avoid water damage to your flooring. **Pot Pads**, available from Arizona Pottery (www.arizonapottery.com), are a simple solution. These durable, high-density nylon, dome-shaped disks are placed flat side against the pot to raise it off the floor; they adhere to the pot by suction. They also make sliding a heavy pot across the deck much easier. The two-inch-by-half-inch pads come in sets of four—the number recommended per pot.

Also from Arizona Pottery is a nifty item called the **Pot Leveler**. If the surface where you want to place your pot is not level, this adjustable seat can help. By rotating the two wedges, you can alter the thickness for slight or steeper slopes. Its open center promotes circulation and drainage. It suits containers with bases up to 12 inches wide and weights up to 500 pounds. It is also useful for bird-baths and garden ornaments.

Avant Garden® Décor (www.avantgardendecor.com) offers a variety of stylish stands and planters for your outdoor gardens. The elegant **CobraCo® Scroll Braided Plant Stand** elevates a potted plant 21 inches and will accommodate pots up to nine-and-a-half inches in diameter. Constructed of rust-resistant steel, it is covered with a vinyl, non-slip coating. I think it’s perfect for ferns, but it will work well for any plant with a fountainlike or cascading form. It can be used both indoors or outdoors.

The **CobraCo® Tricycle Planter**, also available from Avant Garden® Décor, adds a whimsical touch to your front entrance, deck, or patio. Made of black metal, it measures about 12 inches high, 21 inches wide, and 12 inches deep. The coil-lined basket can accommodate a tapered pot up to 12 inches in diameter at the top. Filled with bright annuals such as petunias, impatiens, and geraniums, it creates a playful display sure to attract attention all summer long.

Rita Pelczar is a contributing editor for The American Gardener.
Horticultural Events from Around the Country

BOTANICAL GARDENS AND ARBORETA

NORTHEAST

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


SOUTHEAST

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


RAP JULY 23. Hypertufa Trough. Workshop. JC Raulston Arboretum at NC State University in Raleigh is celebrating its 40th anniversary with “Horticultural Bright Lights: the Future of Gardening,” a symposium focusing on what’s coming in the next 40 years of gardening. Set for September 23 and 24, the event will explore “how we can garden and create landscapes in ecologically friendly ways and how we can co-exist with nature both in the wild and in our managed landscapes,” explains Mark Weathington, the arboretum’s director.

Celebrating 40 Years, Past and Future

JC RAULSTON ARBoretum at North Carolina State University in Raleigh is celebrating its 40th anniversary with “Horticultural Bright Lights: the Future of Gardening,” a symposium focusing on what’s coming in the next 40 years of gardening. Set for September 23 and 24, the event will explore “how we can garden and create landscapes in ecologically friendly ways and how we can co-exist with nature both in the wild and in our managed landscapes,” explains Mark Weathington, the arboretum’s director.

Featured speakers include Matthew Pottage, the youngest curator for the Royal Horticultural Society’s Wisley Gardens; Matt and Tim Nichols; Japanese maple tree experts hailing from North Carolina; and Claudia West; author of the award-winning book, Planting in a Post-Wild World. Book signings and a silent auction round out the event. Visit jcra.ncsu.edu or call (919) 513-7005 for more information.

—Natalie Sheffield, Editorial Intern
Ohio Sustainable Landscapes Symposium

ON AUGUST 27, the Dawes Arboretum in Newark, Ohio, will host its fifth annual Ohio Sustainable Landscapes Symposium. Participants will learn all about how to create a sustainable garden by using native plants, supporting pollinators, and limiting use of water, while maintaining an attractive landscape. The keynote speaker, John Watts, a resource manager from the Columbus and Franklin County Metro Parks, will speak on the region’s remarkable habitats and wildlife. Other presenters will address urban native gardening, hardscaping, sustainable garden planning using smart phones or tablets, and creating low-maintenance yards.

“We want to provide practical resources and information for community members who want to make their home landscapes more sustainable,” says Jill Arrasmith, marketing manager for the Dawes Arboretum. “Not only do we provide classroom-style information, symposium participants then take part in hands-on workshops that highlight sustainable landscape practices.”

The event includes tours of the Dawes Arboretum’s gardens and natural areas. Registration is open until August 22. Visit www.dawesarb.org for details.

—Natalie Sheffield, Editorial Intern
California’s Annual Celebration of Heirlooms

THE NATIONAL HEIRLOOM EXPOSITION will transform the Sonoma County Fairgrounds in Santa Rosa, California, into the world’s largest display of produce from September 6 to 8. Billed as “the World’s Fair of Pure Food,” this event celebrates the beauty and abundance of heirloom varieties in imaginative ways such as a 20-foot pyramid built from countless varieties of squash, and a giant pumpkin contest with mammoth entries weighing over a half-ton. And, of course, participants can expect to sample a smorgasbord of tomatoes, watermelons, and more.

“The event draws fantastic exhibits of rare fruits, giant vegetables, magnificent florals, and heritage animals,” says Kathy McFarland, media and public relations manager for Baker Creek Heirloom Seeds, the company whose owner started the event in 2011.

Gardeners and foodies also will enjoy hearing from hundreds of speakers, such as renowned seed saver and environmental advocate Vandana Shiva. Topics range from practical growing tips to food politics involving plant diversity, and genetic engineering. “We hope to make people aware of the importance that food plays in our personal health and daily lives,” McFarland explains. For more information, visit www.theheirloomexpo.com.

—Natalie Sheffield, Editorial Intern


Looking ahead

WEST COAST
CA, HI, NV

NORTHWEST
AK, ID, MT, OR, WA, WY


Looking ahead


Looking ahead


EXPERIENCES ARE THE MOST VALUABLE CURRENCY.

IN THE GARDEN WEEKEND • AUGUST 19-21, 2016

RATES FROM $561 PER NIGHT
DELUXE ACCOMMODATIONS. BREAKFAST & DINNER DAILY.
CHOICE OF TWO SPECIALTY CLASSES. USE OFFER CODE: PKGITG. SEE WEBSITE FOR DETAILS & CONDITIONS.

Find your green thumb and learn time-honored gardening tips from top professionals.

VICARIOUS Experiences are the most valuable currency.

www.inthegardenweekend.com
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.

A–G

**Abelesphyllum distichum** uh-beel-eo-FIL-um DIS-tih-kum (USDA Hardiness Zones 5–8, AHS Heat Zones 8–5)

**Acorus calamus** AK-or-us KAL-uh-mus (4–11, 12–2)

**Akebia quinata** uh-KEE-bee-kuh kwin-AY-tuh (5–9, 9–2)

**Amaranthus hypochondriacus** am-uh-RAHN-thus hy-po-kon-dree-AH-kus (0–0, 12–1)

**Artemisia stelleriana** ar-teh-MEEZ-yuh steh-leh-ree-AN-uh (3–7, 7–1)

**Astilbe chinensis** var. pumila uh-STIL-bee chuh-NEEn-sis var. PIK-tum (4–8, 8–2)

**Athyrium niponicum** var. pictum uh-TIH-reem-nip-oh-nik-uhm var. PICT-tum (5–8, 8–1)

**Azara microphylla** uh-ZAR-uh my-kro-FOIL-uh (8–10, 12–10)

**Berlandiera lyrata** bare-lan-DER-uh ly-RAY-tuh (5–9, 9–4)

**Bidesfur furfuracum** BY-denz feh-roo-luh-FOR-uh (8–11, 11–1)

**Calycanthus floridus** kal-ee-KEE-nuths FLOR-uh-dus (5–9, 9–4)

**Centaurea cyanus** sen-TWAW-reeh-SAN-uh (2–11, 7–1)

**Clarkia unguiculata** KLARK-ee-uh un-gihk-ee-LAY-tuh (0–0, 9–1)

**Clematis montana** KLEHM-uh-tiss mon-TAN-uh (5–10, 11–1)

**Cleome hassleriana** klee-oh has-leh-AE-AY-tuh (2–11, 12–1)

**Clethra alnifolia** KLET-huh al-nuh-FOR-uh (4–9, 9–1)

**Corylus avellana** KOR-ih-uh av-eh-LAN-uh (4–8, 9–1)

**Cosmos atrosanguineus** KOZ-muhs at-roh-suhn-GWIN-ee-uhs (10–11, 12–1)

**Datura metel** duh-TOOR-uh MET-uh (0–0, 12–4)

**Ensete lasciopulum** en-SAY-lah-sih-KOR-puhm (7–10, 12–1)

**E. ventricosum** E. ven-trih-KOE-sum (10–11, 12–1)

**Eucomis comosa** YOO-kah-miss kuh-MO-suh (7–10, 10–6)

**Fragaria xanassa** frah-GAY-ree-uh ah-NAH-ah-suh (4–8, 8–1)

**F. vesca** F. VES-kuh (5–9, 9–1)

**H–Z**

**Helianthus annuus** hee-lee-AN-iihns AN-yoo-us (0–0, 12–1)

**Heliotropium arborescens** hee-lee-TOH-REE-uhm AR-uh-REEZ-uh (11–11, 12–1)

**Iris sibirica** IYEH-siss sah-BEAR-uh (3–9, 9–1)

**Lavandula angustifolia** lah-VAN-dul-uh ang-GETH-uh-FOR-lee-uh (5–8, 8–1)

**Musa basjoo** MEW-suh BASS-juh (7–10, 12–1)

**M. sikkimensis** M. sikh-ee-MEN-siss (7–11, 12–1)

**M. velutina** M. vel-oo-TEEN-uh (8–10, 12–1)

**Menhia xipiperoides** MEN-thuh pih-pur-EE-tuh (5–9, 9–1)

**Nicotiana sylvestris** nih-koh-shee-AN-uh sil-VES-tress (0–0, 10–1)

**Pericaria orientalis** pur-ih-KAIR-ee-uh (4–5, 7–1)

**Philox paniculata** FLOKS pan-ik-yew-LAH-lee-uh (4–8, 8–1)

**Pinus jeffreyi** PIH-nus JEF-ree-eye (5–9, 9–5)

**Rodgersia pinnata** rah-JER-zee-uh pih-NAY-tuh (3–7, 7–1)

**Spiraea thunbergii** spih-REE-uh thuh-EN-gah (4–8, 8–4)

**Stachys byzantina** STAY-kiss bh-zahn-TY-uhh (4–8, 8–1)

**Tanacetum coccineum** tan-uhh SEE-tuhm kok-SIN-ee-uhm (5–9, 9–5)

**T. vulgare** T. vul-GAY-ree (4–8, 8–1)

**Tithonia rotundifolia** tih-THOH-ree-uhh roh-TUN-di-FOR-lee-uh (0–0, 12–1)

**Valeriana officinalis** val-air-ee-AN-uhh oh-fee-ih-NAL-iss (4–9, 9–1)

**Zea maya** ZEE-ah MAY-suh (0–0, 12–1)
CLASSIFIED AD RATES: All classified advertising must be prepaid. $2.75 per word; minimum $66 per insertion. Copy and prepayment must be received by the 20th of the month three months prior to publication date. Display ad space is also available. To place an ad, call (703) 768-5700 ext. 120 or e-mail advertising@ahs.org.

NATIVE PLANTS
Mail-Order Natives, P.O. Box 9366, Lee, FL 32059. Retail supplier of native trees, shrubs, native azaleas, perennials, palms & grasses. Top-quality plants with service to match. Free catalog. www.mailordernatives.com. E-mail: superiortrees@centurylink.net. Phone: (850) 973-0585.

PLANT LABELS
ENGRAVED PLANT LABELS
VISIT Gardenmarkers.com

Paw Paw Everlast Label Co.
serving gardeners since 1937
www.EverlastLabel.com

NEW!
Two designs
Spring Summer

AMERICAN HORTICULTURAL SOCIETY
FLORAL MUGS
Celebrate spring when you sip your tea or coffee from our set of exclusive limited-edition floral mugs! Each 8-ounce mug is made of bone china and features a wraparound design of spring or summer flowers by nature artist Liz Fuller with our logo on the underside. Dishwasher and microwave safe.

$34.95 including tax plus $9.95 for shipping and handling for a set of two mugs. To order, visit www.ahs.org/floralmugs. Allow 2 to 4 weeks for delivery.

Purchases help support the American Horticultural Society.

A PERFECT GIFT FOR BIRTHDAYS,
GRADUATIONS, WEDDINGS, ANNIVERSARIES

TO PLACE YOUR AD HERE
call (703) 768-5700 ext. 120
or e-mail advertising@ahs.org
First encountered chestnut rose (Rosa roxburghii, USDA Hardiness Zones 5–10, AHS Heat Zones 10–4) several years ago in the Old City Cemetery in Lynchburg, Virginia. Even across 200 yards of sugar maples and Confederate tombstones, its gnarled, sharply angled limbs set it apart. Up close, its exfoliating bark, bristly calyces, and peonylike flowers had me so preoccupied, I didn’t notice when night fell and someone locked the graveyard gates.

Inspired by that experience, I now grow chestnut rose in my own garden, where it continues to beguile my imagination. I like to think of it as the botanical equivalent of a duck-billed platypus because it combines the traits of rose, black locust, horse chestnut, and river birch. When the chestnutlike buds open into frilly, cabbage-dense roses beginning in spring, it reminds me of the charm of a Fabergé egg opening to reveal a czar’s imperial palace. The fruits, or hips, also resemble horse chestnuts; they are sold as candies in the species’ native China.

**CARE-FREE BUT TAKE CARE**

Chestnut rose makes a fine individual specimen with four-season interest, but it is adaptable to a number of different growth habits.

In his *Rose Guide* published in 1844, Scottish-American nurseryman Robert Buist called it “the beau idéal of the flow-er garden” when grown as a hedge. In a warmer climate, it also can be trained as a short climber or a small tree. If left to its own devices, it may eventually form a seven-by-seven-foot sprawling shrub with thick, silvery stems that jut out hor-izontally and are clothed with impenetrable masses of twiggy growth.

Formal rose gardeners who prefer regimented specimens can cut it back as they would an old garden or English rose. The caveat is that it will then produce bundles of thin, chartreuse suckers around the base that will require pruning to maintain a formal look.

Chestnut rose exhibits extraordinary disease resistance and cultural adaptability. In part shade or full sun, with or without water or fertilizer, in clay or loam, it performs consistently, without a hint of powdery mildew or blackspot. Wicked prickles are its only drawback, so gauntlet gloves are essential for handling anything more than the immediate stems of cut flowers. On the other hand, the prickles deter deer and make a prohibitive living fence.

**FLORAL BONHOMIE**

Particularly when grown without shaping, chestnut rose benefits from garden friends that add clean vertical lines, such as foxgloves and lupines. At Poplar Forest, Thomas Jefferson’s summer villa in For-

A former editorial intern with The American Gardener, Benjamin Whitacre lives in central Virginia.
We Care About Your Trees.

The healthier a tree or shrub, the better able it will be to grow, thrive, and fend off pests and diseases.

Trees are such sturdy looking elements of the landscape that people often assume they do not require special care. But in today’s urban environment, trees are subjected to conditions that can harm their long-term health. Our primary focus is preventive management through overall tree care.

Whether you are protecting your investment, improving your property value, or planting a tree for someone special, The Care of Trees will help ensure long and healthy lives for your trees and shrubs.

the care of trees.
a DAVEY company

www.thecareoftrees.com

Emerald Ash Borer Treatment and Management Programs • Tree and Shrub Pruning
Insect and Disease Management • SoilCareSM – Our Organic Soil and Root Management Program
Deep-Root Fertilization and Nutrient Management Programs • Tree Planting
Cabling and Bracing • Certified Arborists • TCIA Accredited
Confidence shows.

Because a mistake can ruin an entire gardening season, passionate gardeners don’t like to take chances. That’s why there’s Osmocote® Smart-Release® Plant Food Plus Outdoor & Indoor.

It’s fortified with 11 essential nutrients to feed plants continuously and consistently for six full months. With Osmocote®, you can garden with confidence.