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NOTES FROM RIVER FARM

S WE MOVE into 2008, I hope that you and yours had a wonderful holiday season and that all of those New Year's resolutions are holding firm, especially those relating to gardening.

In wrapping up some of the projects that kept us busy last year, I am delighted to report that the long-planned overlook in the André Bluemel Meadow at River Farm is now completed. This beautiful stone feature, which incorporates a council ring, is a wonderful addition to our headquarters, and I would like to express particular thanks to AHS President's Council member Pauline Vollmer, whose generous gift made the

overlook possible. You can read more about the project in the "News from AHS" section of this issue.

Also in the news section you will find a complete calendar of AHS events for the year, with events going on throughout the nation, from Seattle and San Francisco to Denver, Philadelphia, and Washington, D.C., as well as online educational programs that can be accessed by members no matter where they live. There are far too many for me to cover them all, so I will just hit a few highlights.



Our very popular Garden School will feature two sessions this year: the first on April 10 and 11 at nearby Mount Vernon Estate and Gardens is "Trees of the American Landscape," and the second, hosted by Denver Botanic Gardens on June 19 and 20, is "Gardening with Native Plants."

And based on the positive feedback we received about the new webinars that debuted last year, we are scheduling four of these live, online educational programs this year. Speakers include William Cullina of the New England Wild Flower Society in March and plantsman extraordinaire Dan Hinkley in May.

One of our flagship educational programs, the annual National Children & Youth Garden Symposium, will be held in the Philadelphia area from July 24 to 26. The AHS's Education Department has created another great program that will include sessions and presentations from some of the top experts in the children's garden field, as well as visits to many of the stellar gardens in this region.

In this issue of our magazine, you will find the annual AHS Member Guide, which lists the Flower Shows and Reciprocal Admissions Program (RAP) gardens that offer members discounts or other benefits in 2008. Be sure to keep this booklet handy, because it also includes brief descriptions of all of our programs and other member benefits that are available to you. One change to this year's Member Guide is that it does not include the Annual Seed Exchange list, which you will find on our website. If you don't have access to the Internet, you can request that the seed list be mailed to you.

In closing, I would like to express my sincere gratitude to all of our loyal and dedicated members for your support throughout 2007. None of the events and programs that take place here at our headquarters and across the nation would be possible without you. We are deeply appreciative for your continued benevolence and look forward to seeing many of you during 2008.

—Deane H. Hundley, President & CEO

Draw H. Hundley

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MEMBERS' FORUM

MYSTERY PLANT DRAWS LOTS OF MAIL

Many readers have offered suggestions for the identity of the mystery plant (below) that appeared in the November/December 2007 issue in a photograph sent in by Tina Cofield of Bear Creek, Alabama. We don't have a definitive ID yet, but here are some of the responses we received:



Could the "ghostly plant mystery" from your last issue be an escaped poinsettia? From the photo, the leaves look similar to a poinsettia, as do the stem angles, so perhaps it might be a white-leaved cultivar.

Also, Kris Wetherbee's article on "Bird-Friendly Winter Gardens" in the same issue was quite informative. I'm never disappointed with the variety and abundant information contained in each issue of your magazine.

Earl B. Frederick Parksley, Virginia

The plant looks like a variegated root sprout of a *Nyssa sylvatica* (black gum, or tupelo). The leaf in the lower left corner of the photograph has a central spot of green, while the rest of the leaves appear achlorophylous. Plants that have this little chlorophyll usually don't survive: Either they burn up in the sun, or they simply can't photosynthesize. However, the reader says it comes back every year, which makes me think that it is a root sprout, which black gums are known to produce. The slight zigzag nature of the

leaf arrangement reminds me of *Nyssa*; we have a *Nyssa* breeding program at the U.S. National Arboretum, so I'm quite familiar with them!

Richard T. Olsen Research Geneticist U.S. National Arboretum Washington, D.C.

I believe the plant in question is *Duranta repens*. I came across it in a Santa Barbara nursery a couple of years ago. When I bought it, the leaves were a variegated bright green with cream. Since bringing it home, it sends shoots out that produce only cream-colored leaves. My garden is shady, but if I thin out enough foliage above this plant, it can produce the occasional tubular, violet-blue flowers.

The Sunset Western Garden Book says it's native to Florida and a few other tropical/semi-tropical places, so I would expect it to do well in Alabama.

Annabel Faris Port Hueneme, California

The "ghostly plant mystery" looks to me like a sweetspire (*Itea* spp.) plant. Must be some neat sport!

Erica Beadle Highland Gardens Camp Hill, Pennsylvania

Could the plant be a loquat (*Eriobotrya japonica*)? Loquats won't survive in the USDA Zone 5 winters where I live, but, of course, we had to try growing them from the pits. The seedlings faded outdoors in our hot summer, but they greened up again when we brought them indoors to a windowsill.

Joanne Lenden Delmar, New York

New Website Password

Effective February I, 2008, the password to access the members-only portion of the AHS website (www.ahs.org), will be **sprout.**

FRESH IDEAS APPRECIATED

I commend you all for the excellent November/December 2007 issue. As a former mail-order nursery owner, freelance writer, garden designer, and former employee of another gardening magazine, I thought the issue had interesting and new articles—meaning new content and ideas—which is challenging in today's garden media forum.

I was delighted to "meet" Dave of the famous Dave's Garden website. To realize that he was only 23 years old when he started the site is amazing—and also hopeful for those of us worried that younger people aren't getting involved in gardening.

I also enjoyed the "Winter-Blooming Shrubs" feature as well as the article on the Hawaiian gardens.

Keep up the good work.

Lisa Wright Boston, Massachusetts

CLARIFICATION

The photograph by Karen Bussolini of winter jasmine (below) on page 23 of the article "Winter-Blooming Shrubs" in the November/December 2007 issue was taken at Lewis Ginter Botanical Garden in Richmond, Virginia.



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.

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PROGRAMS • EVENTS • ANNOUNCEMENTS

Green Garage Chosen for Summer Exhibit on the National Mall

THE AHS'S award-winning Green Garage® will be on display on the National Mall in Washington, D.C. from May 24 through October 13 as part of a sustainability-themed exhibit sponsored by the United States Botanic Garden (USBG).

The summer-long outdoor exhibit will feature demonstrations and garden "rooms" that illustrate environmentally responsible gardening products and practices created by organizations from across the country.

"Encouraging sustainable and earth-friendly gardening is an important part of the AHS's mission," says **Tom Underwood**, the Society's chief operating officer. "It is a significant honor for the Green Garage to be selected for inclusion in this USBG exhibit, which will educate and inspire visitors from around the country and the world."

Staged as a full-scale home garage, the AHS's Green Garage show-cases practical tools, supplies, and techniques for environmentally responsible gardening. The traveling model Green Garage debuted at the Philadelphia Flower Show in 2006, and then appeared at the 2007 Northwest Flower & Garden Show in Seattle. An identical model garage is on display from April to September at the AHS's River Farm headquarters in Alexandria, Virginia.

For details on the USBG's summer exhibit, call (202) 225-8333 or visit www.usbg.gov.



A similar model of this Green Garage display at River Farm will be part of a U.S. Botanic Garden exhibit this summer.

AHS Receives Donation of Lewis and Clark Plant Images

STARTING IN 2003, AHS members **Phyllis and John Reynolds** of Portland, Oregon, began to photograph plants discovered by Meriwether Lewis and William Clark on the western leg of their Corps of Discovery expedition. This sec-



This photograph of bitterroot is among many plant portraits Phyllis Reynolds has donated to the American Horticultural Society.

tion of the trail lies between Missoula, Montana, and where the Columbia River meets the Pacific Ocean along the Oregon/Washington border.

The collection includes nearly 90 captivating images, with close-up studies of flowers, fruit, and foliage. Pictured left in bloom is bitterroot (*Lewisia rediviva*), which Lewis and Clark noted in their journal on July 1, 1806 in Traveler's Rest, Montana. The Reynolds photographed it along the Columbia River Gorge in Washington State.

Self-taught photographers and wildflower enthusiasts, they consulted Lewis and Clark's journals and many books about the expedition and native plants. Two years into their adventure, John was diagnosed with cancer and died a year later. It is in John's memory that Phyllis has donated the photograph collection to the AHS.

While "my husband and I did not follow the trail," Phyllis says, "some of the plants were photographed at sites where Lewis and Clark collected them." She adds, "I plan to continue photographing the Lewis and Clark flora—there are more plants out there." Her additions also will be donated to the collection and the AHS is planning an exhibit of selected images later this year at River Farm.

Explore noteworthy landscapes while learning about America's great trees and native plants at these exclusive AHS Garden School offerings.

AHS GARDEN SCHOOLS for 2008

This year, the hosts for the American Horticultural Society's Garden Schools will be George Washington's Mount Vernon Estate in Virginia and the Denver Botanic Gardens in Colorado.

At Mount Vernon, we will study the stunning trees that have beautified the American landscape. And at Denver Botanic Gardens—one of the first gardens in the country to emphasize native plants—we will study native species. Gardening enthusiasts and horticultural professionals alike will benefit from these inspirational and informative two-day workshops.

Visit www.ahs.org or call (703) 768-5700 ext. 137 for more information on how you can be part of these exciting events.

APRIL 10 & 11, 2008
Trees of the American Landscape

George Washington's Mount Vernon Estate and Gardens, Alexandria, Virginia

with Guest
Horticulturist
Dean Norton,
Mount Vernon's
Director of
Horticulture



JUNE 19 & 20, 2008
Gardening with Native Plants

Denver Botanic Gardens, Denver, Colorado

with Guest Horticulturist Scott Calhoun, garden designer and author





New Meadow Overlook at River Farm

AT RIVER FARM, a new stone overlook accessed by a path through the André Bluemel Meadow now provides sweeping views of the meadow and across the Potomac River, with the Washington Monument visible in the distance. The project—part of River Farm's Master Plan—was made possible through the generous support of AHS President's Council member Pauline Vollmer of Baltimore, Maryland.

Initially conceptualized by former AHS Landscape Architect Ann English and later revised by Alan R. Blalack of Chapel Valley Landscape Company, the overlook includes a council ring that encourages reflection and provides a gathering area for small groups.

Construction started in mid-November and was completed within a month. The project required more than 20 tons of Pennsylvania blue flagstone and fieldstone according to landscape designer Joshua Dean of Merrifield Garden Center, who managed the overlook's installation.

For information on how you can contribute to similar garden projects at River Farm, contact Laura Alexander at lalexander@ahs.org or call (703) 768-5700 ext. 127.





Installed on the knoll behind the large black walnut tree in the center of the photograph above, the new meadow overlook provides a place to enjoy views of the Potomac River and catch a glimpse of wildlife. Left: Stonemasons building the low walls of the overlook last November.

AHS at West Coast Flower Shows

AHS STAFF MEMBERS will be heading west this winter to set up educational exhibits at the Northwest Flower & Garden Show in Seattle, Washington, from February 20 to 24, and also at the San Francisco Flower & Garden Show in California from March 12-16. If you plan to attend either of these shows, please visit the booth. For information about these shows, visit www.gardenshow.com or call (206) 789-5333.

America in Bloom Registration

February 28 is the deadline to enter your community in the 2008 America in Bloom (AIB) competition. AIB is a national contest intended to encourage community beautification efforts. Judges base their ratings on population size and also make special award selections—such as the AHS-sponsored Community Involvement Award—based on specific criteria. To learn more or download the registration form, visit www.americainbloom.org.

Upcoming AHS Garden Schools

LEARN FASCINATING and practical details about America's historic trees and native plants at the AHS's two newest Garden Schools. Scheduled for April 10 and 11, "Trees of the American Landscape" will feature guest horticulturist **Dean Norton** from George Washington's Mount Vernon Estate and Gardens in Alexandria, Virginia. Participants will "take an up-close look at significant trees that have beautified the nation and learn preservation techniques and ideas for selecting replacements," says Stephanie Jutila, AHS education programs manager.

Colorado's Denver Botanic Gardens (DBG) will host "Gardening with Native Plants" on June 19 and 20 with award-winning author and garden designer Scott Calhoun serving as guest horticulturist. Field studies will include tours of significant native plant gardens—both private and public. "With Denver's unique climate," Jutila says, "the study will cover an unusually broad range of plants and garden habitats."

For more information about the AHS Garden Schools or to be added to the mailing list, e-mail education@ahs.org or call (703) 768-5700 ext. 137.

2008 AHS Webinars

LAST YEAR'S new AHS web seminar (webinar) series featuring University of Georgia horticulture professor and author **Allan Armitage** was such a success with AHS members that four new webinars—each sponsored by Monrovia nursery—are being planned for 2008.

On March 20, the first webinar will feature **William Cullina**, director of horticultural research for the New England Wild

William Cullina

Flower Society and garden book author. He will speak about native ferns, moss, and grasses, which is the subject of his latest book to be published in February.

Dan Hinkley, plantsman and former owner of Heronswood Nursery in Kingston, Washington, will present the next webinar on May 8. He will discuss new and underused woody plants for American gardens. Speakers for webinars scheduled in July and October will be announced soon.

"Webinars make topnotch horticultural experts accessible to a nationwide and even a worldwide audience," notes AHS Membership and Development Manager Laura Alexander. "We are really pleased to offer these educational programs as an exclusive member benefit at no cost."

For updates on the 2008 webinars or to sign up to receive e-mailed announcements, visit the members-only area of the AHS website (www.ahs.org).

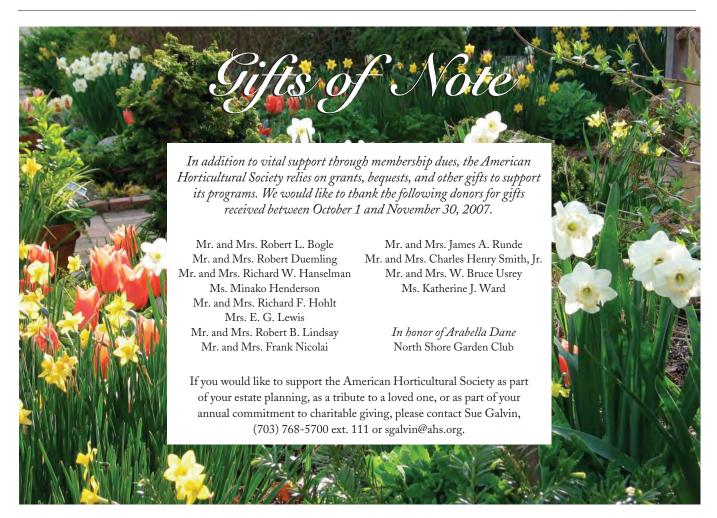
AHS Garden Travel Destinations for 2008

THIS YEAR, the AHS is launching a revamped garden travel program featuring a blend of national and international destinations. Another exciting development is the planned debut of family travel opportunities for the first time. Currently the 2008 travel schedule includes:

- Gardens and Monuments of India (February 17–March 2)
- Orchids and Gardens of Costa Rica (April 9–17)
- Gardens of Asheville, North Carolina (April 22–27)
- The Great Gardens of England and the Royal Chelsea Flower Show (May 13–23)
- Charming Gardens of Coastal Maine (June 16–22)
- *Gardens of Australia* (September 29–October 15)

Trips to Scotland and France are under consideration for late summer and fall—updates will be posted on the AHS website (www.ahs.org) as new destinations and dates are confirmed.

To register for a trip or for more information, contact AHS Travel Program Coordinator **Diana Biras** at (636) 305-0086 or ahsnationaltravel@ahs.org.





AHS NATIONAL EVENTS AND PROGRAMS

2008 CALENDAR

ark your calendar for these national events that are sponsored or cosponsored by the AHS. Visit www.ahs.org or call (703) 768-5700 for more information.

- FEB. 13. Amy Stewart Lecture. George Washington's River Farm, Alexandria, Virginia.
- FEB. 20-24. AHS Education Exhibit at Northwest Flower & Garden Show. Seattle, Washington.
- MAR. 12-16. AHS Education Exhibit at San Francisco Flower & Garden Show. San Francisco, California.
- MAR. 19-JUNE 1. Epcot International Flower & Garden Festival. Lake Buena Vista, Florida.
- MAR. 20. AHS Webinar with William Cullina.
- APR. 10 & 11. AHS Garden School. "Trees of the American Landscape." George Washington's Mount Vernon Estate and Gardens, Alexandria, Virginia.
- APR. 19 & 20. Friends of River Farm Plant Sale. George Washington's River Farm, Alexandria, Virginia. (Please note: Member's-only preview sale is from 4 p.m. to 8 p.m. on April 18.)
- MAY 4-7. Colonial Williamsburg Garden Symposium. Williamsburg, Virginia.
- MAY 8. AHS Webinar with Dan Hinkley.
- MAY 8 & 9. Magic of Landscapes. Lake Buena Vista, Florida.
- MAY 18. Friends of River Farm Family Picnic. George Washington's River Farm, Alexandria, Virginia.
- MAY 24-OCT. 13. Green Garage® Exhibit at United States Botanic Garden. Washington, D.C.
- MAY 27-30. AHS President's Council Trip. Washington, D.C.
- JUNE 6. Great American Gardeners Award Ceremony and Banquet. George Washington's River Farm, Alexandria, Virginia.
- JUNE 19 & 20. AHS Garden School. "Gardening with Native Plants." Denver Botanic Gardens, Denver, Colorado.
- JULY 24-26. National Children & Youth Garden Symposium. Greater Philadelphia Area.
- AUG. 22-24. The Homestead's 10th Annual "In The Garden With the Experts" Symposium. The Homestead, Hot Springs, Virginia.
- SEPT. 20. AHS Annual Gala. George Washington's River Farm, Alexandria, Virginia.
- OCT. 23. Dr. H. Marc Cathey Day. George Washington's River Farm, Alexandria, Virginia.

Color is Theme for Dr. Cathey Day

THE AHS celebrated the third annual Dr. H. Marc Cathey Day at River Farm on October 23, 2007. This annual celebra-



Robert Griesbach signs a birthday card for Marc Cathey before commencing his lecture at River Farm last October.

tion was established in 2005 to honor the longtime AHS president and USDA research scientist each year on his birthday. In previous years, garden areas at River Farm were planted or renovated in appreciation of his many years of service to the Society. This year, the AHS honored Cathey with a lecture topic he loved: color. Robert Griesbach, a research geneticist with the U.S. National Arboretum in Washington, D.C., talked with nearly 50 gardeners about the science behind "Color in the Garden."

"Over the years, Marc Cathey and I discussed ways of improving the dis-

play of color in gardens, and it was an honor for me to present a lecture on a subject dear to his heart," says Griesbach. Using familiar garden plants as examples, Griesbach explained how pigments and environmental conditions such as drought influence the color of foliage and flowers.

Proceeds from the lecture benefited the Dr. H. Marc Cathey Award Endowment Fund, which supports one of the AHS's Great American Gardeners Awards that recognizes outstanding horticultural research.

Amy Stewart Lecture at River Farm

AMY STEWART, author of the New York Times bestselling Flower Confidential: The Good, the Bad, and the Beautiful in the



Amy Stewart

Business of Flowers (Algonquin, 2007), will give a lecture based on this book at River Farm on February 13 at 10:30 a.m. A book signing will follow the presentation.

Based in Eureka, California, Stewart is also the author of *From the Ground Up:* The Story of a First Garden (St. Martin's Griffin, 2002) and The Earth Moved: On the Remarkable Achievements of Earthworms (Algonquin, 2005). She is one of four writers on the well-known blog, GardenRant, and she frequently lectures

across the country on a variety of garden topics.

The lecture is cosponsored by Solutions at Home magazine and the American Horticultural Society. Space is limited, so early registration is recommended. For additional information or to register, call (703) 768-5700 or visit www.ahs.org.

AHS Award Renamed for Morrison

THE AHS AWARDS COMMITTEE recently passed a motion to modify the name of the Horticultural Communication Award, one of



B.Y. Morrison

the AHS's Great American Gardeners Awards given annually, to the B.Y. Morrison Communication Award. This change was made in honor of **Benjamin Yoe Morrison**, who served as the editor of the AHS's magazine for nearly four decades from 1926 to 1963. For much of that time, he compiled, wrote for, and even illustrated the publication in his spare time while he was the acting director of the U.S. National Arboretum. He also edited and contributed to several other AHS publications, such as *The Azalea Book* (see

"Fifty Years Ago in AHS History" on page 57) and the first five *American Daffodil Year Books*.

The 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. The 2008 recipient of this award—along with the 11 other Great American Gardeners Awards—will be announced in the March/April 2008 issue of *The American Gardener*.

News written by Editorial Assistant Caroline Bentley.

2008 National Children & Youth Garden Symposium

Learn how national children's gardening experts are "Growing Fertile Minds and Communities" at the AHS's 16th annual National Children & Youth Garden Symposium. Hosted by the Camden Children's Garden, Longwood Gardens, Pennsylvania Horticultural Society, and Winterthur Museum & Country Estate, the Symposium will take place from July 24 to 26 in the greater Philadelphia area. For more information, visit www.ahs.org or call (703) 768-5700 ext. 132.

Williamsburg Garden Symposium

Garden experts at Colonial Williamsburg's Garden Symposium "Celebrating the American Garden: Bringing People and Plants Together" from May 4 through 7 will discuss ways of using plants as a calming influence and to soften hard angles of urban landscapes. This year's keynote speaker is **Lynden Miller**, director of the Conservatory Garden in New York's Central Park. Other speakers include horticulturist, author, and radio personality **André Viette**, and **Bob Lyons**, director of graduate programs at Longwood Gardens.

Through the AHS's partnership with this educational program, a registration discount is available for AHS members. Contact Colonial Williamsburg at (757) 229-1000 or visit *www.history.org* for details.



Chapel Valley: Landscaping the Mid-Atlantic Region

by Caroline Bentley

TS CLIENT LIST reads like a grand tour of beautiful landscapes in the mid-Atlantic area: the National Geographic Society, the Vietnam Veterans Memorial, the Howard Hughes Medical Center, Baltimore's Inner Harbor. These clients, along with countless private residences and corporate offices in Maryland, Virginia, and Washington, D.C., rely on Chapel Valley Landscape Company to beautify their landscapes.



Above: Chapel Valley Landscape Company's projects include the grounds of the National Shrine in Washington, D.C. Right: Chapel Valley founder J. Landon Reeve IV.

Successfully managing sites like these requires expertise, vision, and the flexibility to adapt to new horticultural trends. With \$46 million in annual sales, three offices, and 475 employees, Chapel Valley is now the 16th largest full-service landscape firm in the country. And along the way the company has picked up 250 national and regional awards for its work.

ALL IN THE FAMILY

"In 1968, I started Chapel Valley with goodwill and a prayer," says **J. Landon Reeve IV**, the company's founder. He also had a new green Volkswagen Bug and a horticulture degree from the University of Maryland. In the second year, Reeve bought some land and built a tiny office for his staff of three, along with space to store equipment and trucks.

According to Reeve, his late wife, Janet, was "a driving force" in the company's formative period. Initially the company was a residential design/build firm, but over the next 20 years, they steadily added services for commercial clients, irrigation and lighting installation, and residential maintenance.

At age 13, Reeve's daughter, Deonne, started working part-time in the family garden caring for plants. During high



school and college, she honed this experience at Chapel Valley. While she was in college, she took a human resources/management course that "inspired me to develop a strong HR department and a

more formal internship program," says Deonne. Now, Chapel Valley's internship program is recognized as one of the best in the industry.

James, Reeve's son, also got involved with horticulture at an early age. Reeve encouraged him to "learn by doing," so James started his career at Chapel Valley as a laborer before eventually moving up through the ranks to his current position as the company's CEO and president.

The company's commitment to applying the best practices, hiring talented people, and supporting continued employee education has served them well through four decades.

For more information about Chapel Valley, visit www.chapelvalley. com. To find out more about the AHS's corporate partnerships, e-mail Laura Alexander at development@ahs.org.

INDUSTRY LEADERSHIP

In addition to building his business, Reeve has held prominent leadership roles in regional and national green industry groups. He is a past president of the Maryland Nursery & Landscape Association and the Professional Landcare Network.

Reeve has been an AHS member since the 1960s, but three years ago he took a more active role when longtime friend **Kurt Bluemel**, owner of Kurt Bluemel Nursery, invited him to join the AHS Board of Directors. "I originally joined the AHS as an opportunity to meet people in the industry and learn more about horticulture on a national level," says Reeve. "As a board member, I support the AHS's mission, especially educational programs that demonstrate how important plants and horticulture are to our health and well-being."

Through his participation with the AHS's Executive and River Farm committees, Reeve "truly leads by example and helps us to weigh options to make the best decisions for River Farm and the AHS," says AHS Chief Operating Officer **Tom Underwood**.

"Landon is a consummate gentleman and a real voice of reason on our Board," says AHS President and CEO **Deane H. Hundley**. "The AHS is benefiting from his business background and from the landscaping services Chapel Valley has provided here at River Farm as a participant in the Society's Corporate Partnership program."

Among the projects Chapel Valley has facilitated at River Farm are the installation of an irrigation system for the André Bluemel Meadow, renovation of a circular walkway in front of the Estate House, and design assistance on the recently installed Meadow Overlook (see page 10).

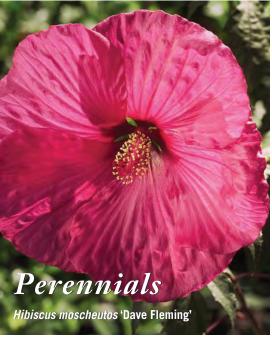
Caroline Bentley is an editorial assistant for The American Gardener.



new for 2008 BYRITA PELCZAR Plants with Promise

Another gardening season will soon be here. See what's new in plants this year.

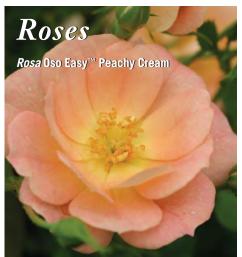


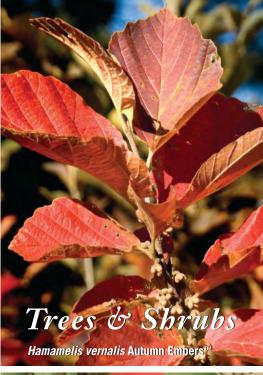


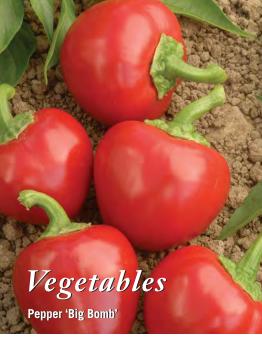
'HAT'S NEW for the garden this year? Nurseries and seed companies are introducing new varieties with qualities they think will capture your interest: bigger, smaller, tastier, hardier; more fragrant, more floriferous, more disease or pest resistant; new flower and foliage colors; different growth habits.

Notable among the new varieties are many that have been selected because they thrive in conditions that are less than ideal. If extended heat waves, lack of rain, or municipal water restrictions were part of your 2007 garden experience, you may want to take a closer look at new varieties that boast increased heat and drought tolerance. On the other hand, if you've had to deal with flooding or erratic cold spells, there are varieties that can better handle those environmental stresses, too.

Trial gardens across the country—many located at universities or botanic gardens and arboreta, have grown many of these new varieties, evaluating their performance in their region. The following is a sampling of new varieties that are generating a lot of excitement. Some selections may have been introduced before this year, but their exceptional landscape value has only recently been recognized. Look them over, there are certain to be some that you will want to consider for your 2008 garden.











ANNUALS AND TENDER PERENNIALS

From S&G Flowers (www.sg-flowers-us. com) comes Begonia semperflorens 'Volumia Rose Bicolor' (USDA Hardiness Zones 0–0, AHS Heat Zones 12–1). A 2008 Fleuroselect Gold Medal Winner, it produces pink and white flowers nonstop from spring to first frost on well-branched, compact plants. With a height of 11 inches and a 13-inch spread, it is recommended both for beds and containers.

A hybrid annual beebalm, *Monarda* 'Bergamo' (Zones 0–0, 12–1), from Kieft Seeds Holland (*www.kieftseeds.com*) offers intense summer color on compact, 19- to 25-inch tall, mildew-tolerant plants. Curved, tubular rose-purple flowers appear from June to August.

Osteospermum ecklonis Asti™ White (Zones 10–11, 8–1) from Goldsmith Seeds (www.goldsmithseeds.com) was bred for heat and drought tolerance. A 2008 All-America Selections winner, it is the first single-color hybrid osteospermum that can be grown from seed. The large white daisy-shaped flowers sport bright blue centers and they appear over a long season on uniform, compact plants.

Salvia farinacea 'Fairy Queen' (Zones 8–11, 12–1) from Benary (www.benary. com) is another 2008 Fleuroselect winner. Recommended for mixed beds, mass plantings, and containers, its fragrant flowers—deep blue tipped with white—bloom from June to October. The compact 18-inch-tall plants are drought tolerant.

Hines Horticulture (www.hineshort. com) is introducing Chrysothemis pulchella 'Black Flamingo' (Zones 11, 12–7), a tender perennial in the gesneriad family that

grows from a tuberous rootstock. It combines glossy, green to purple foliage and clusters of yellow-orange flowers that bloom from midsummer to fall. Ideal for part to full shade, especially in warm areas, it grows to 18 inches tall.

Interest in annuals grown for their foliage shows no sign of flagging. 'Chocolate Mint', a richly colored coleus (*Solenostemon scutellarioides*, Zones 11–12, 12–1) for shade gardens and large containers, hails from Pan American Seed (*www.panam seed.com*). Its deep chocolate-colored leaves are neatly edged in refreshing green and plants grow 12 to 14 inches tall.

For a taller foliage accent, try one of the new varieties of Hibiscus acetosella (Zones 10-11, 12-1). 'Garden Leader Gro Big Red' from Grimes Horticulture (www.grimeshort.com) grows five feet tall with deep red leaves, and looks a bit like a tropical version of a Japanese maple. Gardeners in warmer climates may enjoy the three-inch red blooms, but it's worth growing for the foliage alone. Another selection, 'Panama Red', develops deeply cut red leaves on drought tolerant plants that grow four feet tall; its foliage color remains stable throughout summer's heat. 'Panama Red' came through the University of Georgia's Athens Select™ program (www.athensselect.com), which conducts trials with the goal of identifying heat and humidity tolerant plants.

PERENNIALS AND GRASSES

Achillea millefolium 'Apricot Delight' (Zones 4–9, 9–2), an introduction from Blooms of Bressingham (www.bloomsof bressingham.com), immediately caught the

eye of garden manager Jo Anne Fischer in trials at Yew Dell Gardens in Crestwood, Kentucky. "Apricot Delight' has exhibited an array of changing peachy tones with great foliage," says Fischer, who notes that with a mature height of about a foot, it is shorter than a lot of the yarrows, resulting in a stocky, sturdy plant that thrived throughout the humid and extremely dry summer of 2007.

Galen Gates, director of plant collections at the Chicago Botanic Garden (CBG), is excited about the new *Baptisia* 'Solar Flare' (Zones 4–8, 8–1). The result of breeding work by CBG's Jim Ault, 'Solar Flare' is being introduced through Chicagoland Grows® (www.chicagoland grows.com), a program that promotes new plant cultivars suited to the growing



conditions of the Upper Midwest. "Its inflorescence is breathtaking," says Gates. "It starts out a good clear yellow and as the flower fades it turns pink and orange. It's the only *Baptisia* that experiences that color change in its flowers."

From the Landscape Plant Development Center (LPDC, www.landscape center.org), a non-profit organization headquartered in Mound, Minnesota, comes a clematis for the perennial border. The non-vining Clematis 'Center Star' (Zones 4–8, 8–1) has glossy green foliage throughout the growing season and is covered with two-inch, upward-facing, blue flowers for more than a month beginning in early summer. It grows 30 inches tall, and may require staking.



The popularity of coral bells (Heuchera spp.) has yet to peak, if new varieties are any measure. Monrovia (www.monrovia.com), a wholesale nursery headquartered in Azusa, California, introduces a collection of four selections from breeders Charles and Martha Oliver. Heuchera 'Crystal Spires' is an evergreen selection with silver leaves netted with purple-green and creamy white flowers on 24-inch stems. 'Moonlight' produces purple leaves frosted with silver and large pale green flowers. 'Rose Majestic' has pink flowers on purple stems over a long blooming season, and 'Caroline' is another evergreen with silver and purple leaves and creamy white flowers. All four are rated for Zones 4-9, 8-1.

Western gardeners may want to look for *Heuchera* 'Rosada' (Zones 5–9, 9–1), an introduction from the University of California—Davis (www.ucdavis.edu). It bears creamy pink flowers on two- to three-foot stems in spring. "While many of the colorful-foliaged coral bells available now are not tough enough to stand up to our heat and poor quality irrigation water (high boron and bicarbonate ions), this one sails through," says Ellen Zagory, director of horticulture at UC—Davis Arboretum. She recommends it for dry shade areas in hotsummer climates.

Also for gardeners in the western and mountain regions, High Country Gardens (HCG, www.highcountrygardens. com) in Santa Fe, New Mexico, is introducing a new seed strain of butterfly weed (Asclepias tuberosa) called 'Western Gold Mix' (Zones 4–9, 9–3). Ideal for dry sites and alkaline soil, this butterfly weed produces golden-orange flowerheads on two-foot plants. Another introduction from HCG is a hybrid salvia (Salvia 'Ultra Violet', Zones 5–9, 9–5). Suited to dry, sunny sites, this salvia grows a foot-and-a-half tall, bearing copious violet pink flowers from late summer through fall.

For gardeners in cooler climes, the dwarf *Veronica* 'Total Eclipse' (Zones 4–8, 8–4) developed by Darwin Plants (*www.darwinplants.com*) in the Netherlands grows about a foot tall and wide. It produces lots of midnight blue flowers





from midsummer to early fall on neat, compact plants, making it a great choice for containers or edging a border. From Blooms of Bressingham, *Veronica prostrata* Goldwell ('Verbrig', Zones 6–9, 9–6) forms a mat of variegated foliage only three inches tall. It bears four- to five-inch spikes of blue flowers from late spring to midsummer. Garden writer Doreen Howard of Roscoe, Illinois, planted it in her woodland border, where it performed well last year despite low rainfall. It's a "very hardy plant that needs little care," says Howard.

Cordyline Festival Grass® ('JURred', Zones 8–11, 11–8) is a compact hybrid from Anthony Tesselaar Plants (www. tesselaar.com) that is the first basal branching cordyline to be offered commercially. It boasts burgundy straplike leaves, a cascading form, a height of 24 to 30 inches, and excellent drought tolerance. In cooler zones, gardeners can bring it indoors, where it continues to shine as a houseplant, during the winter.

Recently selected by Roy Diblik of Northwind Perennial Farm, *Sporobolus heterolepis* 'Tara' (Zones 3–8, 10–2) is a drought tolerant, fine textured grass that grows only 15 inches tall. It has a more upright habit than some selections of northern dropseed, and "autumnal tints of orange and yellow," says Gates.

Ball Horticultural (www.ballhort.com) introduces several new grasses including 'Ruby Ribbons', a switchgrass (Panicum virgatum, Zones 4–9, 9–1) with foliage that emerges blue-green but develops a deep wine-red color by midsummer. It grows three feet tall with a two-foot spread.



For the shade garden, consider a new ligularia that has glossy purple foliage from Jelitto (www.jelitto.com). Ligularia dentata 'Midnight Lady' (Zones 3–8, 8–1) grows to two feet tall with dark foliage that provides a regal foil to its stalks of bright yellow daisy flowers in summer. It is ideal for a partly shaded site in soil that is moist or regularly irrigated.

Another new shade plant with promise is 'Metallic Mist' (Zones 7–9, 9–4), a hybrid hardy begonia from Terra Nova Nurseries (www.terranovanurseries.com). Growing to 18 inches tall, this begonia has silvery maple-shaped leaves patterned with dark green veins. Pink flowers develop in late summer. Try it in containers or well-drained soil in part to dappled shade.

SHRUBS AND ROSES

This year's new shrubs include a lovely variegated beautyberry released from the U.S. National Arboretum (www.usna.usda.gov/Newintro/index.html). Callicarpa dichotoma 'Duet' (5–8, 8–5) has a rounded form and grows six feet tall in four years. It has been grown at the JC Raulston Arboretum in Raleigh, North Carolina, where Director Dennis Werner notes that its leaf variegation—white edges with green centers—"shows no tendency to burn or discolor even in full sun."

Monrovia introduces a dwarf smoke bush called Magical® Green Fountain (Cotinus coggygria 'Kolcot', Zones 4–8, 8–3). It is compact, growing only four to six feet tall with a six- to eight-foot spread. The seashell pink flowers that are produced over a long season show off well against the purple tinged, deep green foliage.

At CBG, a witch hazel recently introduced by Roy Klehm of Song Sparrow Nursery has made a big impression. Gates says *Hamamelis vernalis* Autumn Embers[™] ('Klmnineteen', Zones 4–8, 8–1) is a great selection; its fall foliage is "burgundy red with orange undertones, eventually turning burgundy-purple," says Gates. And its fragrant, orange to yellow flowers open in February and March.

Proven Winners (www.provenwinners.com) offers several exciting new shrubs including two new weigelas: My Monet™ (Weigela florida 'Verweig', Zones 4–8, 8–1), is a 12- to 18-inch dwarf with pink, white, and green variegated leaves and bright pink spring flowers; 'Eyecatcher' (Zones 4–8, 8–1) grows to two feet tall with yellow and green variegated leaves and dark red flowers. Pinky Winky™ panicled hydrangea (Hydrangea paniculata 'DVPpinky', Zones 4–9, 9–1), also from Proven Winners, bears summer flower heads that are 12 to 16 inches long, opening white and morphing to pink, as new white flowers continue to open at the tip.

A new series of low maintenance shrub roses developed in the United Kingdom is making a splash here in the United States as Proven Winners introduces a trio of Oso Easy™ roses: Peachy Cream (Rosa 'Horcoherent') with double peach blooms that change to cream; Fragrant Spreader

(R. 'Chewground') with a low spreading habit and fragrant, single pink flowers; and Paprika (R. 'ChewMayTime') with reddish orange single blooms each with a yellow eye. Of the latter, Doreen Howard says, "The color is dramatic, smoky orange; scale is petite, making the plant extremely versatile; and it's very hardy." All three are very disease resistant and suitable for Zones 5 to 9 and 9 to 5.

Howard also likes Flower Carpet® Scarlet rose (Rosa ×'NOA83100B'), which bears clusters of six to eight double, scarlet blooms over a long season. Another new selection in this series of groundcover roses from Anthony Tesselaar Plants is Flower Carpet® Pink Supreme (R. ×NOA168098F), which







bears large clusters of pink flowers with bright yellow stamens. It grows about two feet tall and three feet wide. Both are rated for Zones 5 to 10, 9 to 4.

For those enamored of the characteristics of David Austin's old English roses, consider Gentle Hermione ('Ausrumba', Zones 6–9, 9–6), a strongly fragrant rose that forms a rounded shrub up to four feet high and slightly less in diameter. The ornately petaled flowers are pure pink in the center, turning paler on the outer layers.

TREES AND VINES

If a tree with early spring flowers followed by strikingly variegated leaves suits your garden's needs, check out Cercis canadensis 'Floating Cloud' (Zones 3-9, 9–1). Discovered by Don Black, owner of Charlie's Creek Nursery in Iva, South

Carolina, the bright green leaves are thoroughly speckled with white. At the JC Raulston Arboretum it grows side by side with an older variegated redbud, 'Silver Cloud'. Director Dennis Werner says, "'Floating Cloud' shows more pronounced variegation, better resistance to leaf burn, superior plant habit, and the variegation persists later into the growing season. A truly superior form."

Pyrus 'Silver Ball' (Zones 4–8, 8–4) is the first pear tree to be introduced by the LPDC. It's small for a tree, growing only 12 to 15



feet tall with an equal spread. Its small silvery leaves and white spring flowers contribute to its fine textured appearance. Its half-inch, light brown fruit provide food for a variety of birds.

Bailey Nurseries has introduced a new birch hybrid called Royal Frost® (Betula 'Royal Frost', Zones 4-7, 7-1). Its bark is white, but it is resistant to the bronze birch borer that dooms many other white-bark birches. On top of that, its deep burgundyred foliage turns orange, yellow, and purple in fall. It will grow 30 to 40 feet tall.

Kathy Purdy, who gardens in upstate New York and publishes the popular garden blog Cold Climate Gardening, reports that her Euonymus fortunei Frosty Pearl® (Zones 4–9, 9–1), an introduction from Zelenka Nursery (www.zelenka nursery.com), has done well in her garden



this year. Its evergreen leaves have deep green centers and irregular creamy yellow margins, a variegation that is maintained even in deep shade. "The variegation is very attractive, and if it is as hardy as is claimed, it will be a welcome addition to the plant palette of northern gardeners," says Purdy. It grows to five feet tall and two feet wide as a vine, but can also be grown as a shrub or groundcover.

VEGETABLES AND HERBS

Some noteworthy new varieties of root vegetables make their debut this year. From Johnny's Selected Seeds comes the sweetly flavored 'Touchstone Gold' beet with its vibrant gold interior—a color that is retained in cooking. Thompson & Morgan introduces 'Honeysnack' carrot, with creamy yellow, blunt-ended roots that grow four to six inches long.

And if you like colorful cauliflower, Thompson & Morgan offers 'Graffiti', a hybrid with deep purple curds. There's no need to cover the heads because the color intensifies with exposure to light.

For both garden decoration and delicious popcorn for snacking, Botanical Interests, Inc., introduces 'Strawberry Popcorn', which grows four feet tall and produces two- to three-inch ears of red kernals perfect for popping.

A hot cherry pepper from Seminis called 'Big Bomb' promises to be a heavy and early producer of thick-walled, twoinch, red, rounded fruit on vigorous 24- to 30-inch-tall plants. Pungency is medium.

If you like the flavor of hubbard squash, but are daunted by their enormous size and the far wandering nature of the vines, con-

> sider 'Orange Magic' from Seeds by Design. It's a baby hubbard that bears two- to three-pound, sweet, orange-fleshed fruit on semi-bush plants.

> Renee's Garden offers 'Little Prince' eggplant, which bears clusters of three- to four-inch fruit with tender, glossy skins and non-bitter flesh, and is perfect for containers or small gardens.

> If you have room in your garden, consider Burpee's 'Ruby' watermelon, an icebox-sized melon with deep red, seedless, sweetly flavored flesh. It topped all other melons in Burpee's trials for both

taste and color. If you prefer cantaloupe, Johnny's Selected Seeds suggests 'Sarah's Choice', a new variety that bears medium-sized fruit with superior flavor, thick orange flesh, and good disease resistance.

New basil varieties include 'Queenette' from Renee's Garden, which gets top marks both as an ornamental and as an ingredient in Asian dishes. Its aromatic half-inch leaves grow in clusters around purple stems. Burpee's offers 'Boxwood' basil, a tasty variety that doubles as a hedge that will hold its form late into summer.

Another herb with ornamental appeal is 'Golden Delicious' pineapple sage. This is an extremely fragrant new variety from Brent Horvath of Intrinsic Perennial Gar-





den. In warm climates it is perennial; at CBG, where it is grown as an annual, Galen Gates notes that its distinctive yellow foliage, topped with striking red flowers in the fall, make it a garden knockout.

With so many tempting new varieties you may have difficulty selecting which to include in your gardens. Be sure to take into account their suitability to your growing conditions; choosing varieties that have proven successful in trials in your region is a good place to start.

Rita Pelczar is a contributing editor for The American Gardener.

Retail Sources

Botanical Interests, Inc., Broomfield, CO. (303) 410-1677. www.botanicalinterests.com.

W. Atlee Burpee & Co., Warminister, PA. (800) 888-1447. www.burpee.com.

California Flora Nursery, Fulton, CA. (707) 528-8813. www.calfloranursery.com.

David Austin Roses Ltd., Tyler, TX. (800) 328-8893. www.davidaustinroses.com.

Harris Seeds, Rochester, NY. (800) 514-4441. *www.harrisseeds.com.*

High Country Gardens, Santa Fe, NM. (800) 925-9387. www.highcountrygardens.com.

Intrinsic Perennial Gardens, Hebrow, IL. (815) 648-2788. www.intrinsicperennialgardens.com.

Jelitto, Louisville, KY. (502) 895-0807. *www.jelitto.com.*

Johnny's Selected Seeds, Albion, ME. (877) 564-6697. www.johnnyseeds.com.

Northwind Perennial Farm, Burlington, WI. (262) 248-8229. www.northwindperennialfarm.com.

Park Seed, Greenwood, SC. (800) 213-0076. www.parkseed.com.

Plant Delights Nursery, Raleigh, NC. (919) 772-4794. www.plantdelights.com.

Renee's Garden, Felton, CA. (888) 880-7228. *www.reneesgarden.com*.

San Marcus Growers, Santa Barbara, CA. (805) 683-1561. www.smgrowers.com. **Seymour's Selected Seeds,** Randolph, WI. (800) 353-9516. www.seymourseedsusa.com.

Klehm's Song Sparrow Farm and Nursery, Avalon, WI. (800) 553-3715. *www.songsparrow.com.*

Stokes Seeds, Buffalo, NY. (716) 695-6980. www.stokeseeds.com.

Thompson & Morgan, Jackson, NJ. (800) 274-7333. www.seeds.thompson-morgan.com/us.

Wayside Gardens, Hodges, SC. (800) 213-0379. www.waysidegardens.com.

Wholesale Nurseries

The following companies supply plants to retail outlets only. Visit their websites to locate retail nursery sources in your area.

Bailey Nurseries, www.baileynurseries.com.

Charlie's Creek Nursery, www.charliescreeknursery.net.

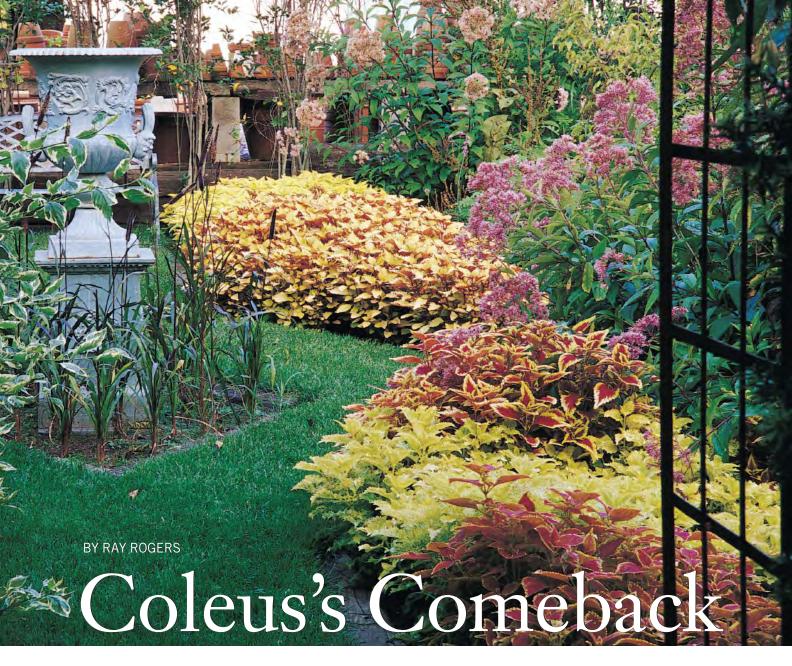
Monrovia, www.monrovia.com.

Proven Winners, *www.provenwinners.com.*

Seeds by Design, www.seedsbydesign.com.

Anthony Tesselaar Plants, *www.anthonytesselaar.com.*

Zelenka Nursery, www.zelenkanursery.com.



This Victorian favorite is back in style as a versatile plant for gardens, containers, specimens, and topiaries.

OLEUS ARE more than just simply the darlings of a monomaniacal collector's eye or quaint Victorian throwbacks for the odd shady corner, windowsill, or container. Today, coleus should be considered hardworking garden plants with as many or even more design attributes than quite a few more commonly grown plants. How many other plants provide as wide a range of color and leaf shape? Consider how many other plants offer season-long color over the entire plant, as opposed to abundant color from only their flowers, as with marigolds, petunias, lantanas,

and fan flowers (Scaevola spp.). Add to this how easy coleus are to grow and it becomes clear that they deserve to be included among a choice handful of truly versatile garden plants.

This article is excerpted from *Coleus:* Rainbow Foliage for Containers and Gardens by Ray Rogers. Photographs by Richard Hartlage. The book will be published in March by Timber Press, Portland, Oregon. For more information, visit www.timberpress.com.

A BRIEF HISTORY OF COLEUS

Botanist and plant explorer Karl Blume is traditionally given credit for discovering the familiar coleus (or flame nettle) in Java, with 1853 stated as the date coleus first became known in England. However, even just a little investigation reveals that the complete story is much more complicated. Briefly put, the plants we know today as coleus are probably the result of a number of naturally occurring, widespread species and cultivated forms brought together over hundreds of years. Essentially, coleus are unpedigreed mongrels. But what fascinating and hardworking mongrels they are.



Whatever the origins and nature of coleus, over the years they have aroused the passion of some and borne the derision of others. The newly discovered coleus certainly attracted the attention of Victorian gardeners in Great Britain and the United States, especially those of enough means to display them in elaborately fashioned, vividly colorful bedding designs tended by gardening staff.

In time, however, gardeners and garden writers grew to despise them. Writing in The American Flower Garden (Doubleday, Page & Company, 1909), writer Neltje Blanchan captured popular sentiment in this passage:

Probably the bedding-out system, once so popular, albeit a ridiculously expensive and troublesome treatment for annuals, marked the lowest point that our national taste in gardening will ever reach...Here and there we still see geranium beds edged with dusty miller in the exact centre of little lawns, the name of a railroad station laboriously spelled out in parti-coloured coleus plants... But public taste is rapidly improving: clam-shells and coleus are rapidly disappearing from American gardens.

Although coleus fell out of general favor for quite a while, enthusiasts continued to enjoy them, and some of the older selections were carefully preserved. In fact, these plants undoubtedly composed much of the genetic pool from which today's coleus sprang.

In the 1980s, gardeners began to rediscover the older coleus. One aspect that appealed to enthusiasts was how easy they were to propagate vegetatively by cuttings, which usually produced a new generation of plants identical to the previous one. In the words of horticulturist Allan Armitage of the University of Georgia, the vegetatively propagated cultivars "blew away" the seed-propagated strains, which produced variable results.

Opposite page: Coleus massed along the front of a border at Atlock Farm in Somerset, New Jersey, provide a colorful, season-long edging. Above: In this Victorian-inspired garden at Atlock Farm, coleus varieties 'Careless Love' at left, 'Flirtin' Skirts' in front, and 'Schizophrenia' in back, are separated by an upright basil and edged with 'Crimson Pygmy' barberry.

WHAT'S IN A NAME?

For many years the plants that are the subject of my book bore the scientific epithets Coleus blumei (based on the conclusion that the plants arose from one distinct species named for Karl Blume) or Coleus ×hybridus (derived from research that suggested two or more species were in their genetic background, among them hybrids). However, more recent research has prompted official botanical bodies to declare that these plants are more properly named Solenostemon scutellarioides (L.) Codd.

Because "coleus" is much easier to spell and pronounce than Solenostemon—even without the slightly more polysyllabic scutellarioides and because I have known and grown these plants as coleus for many years, I call them coleus in my book. This is a common name, however, as distinguished from the scientific name, Solenostemon. —R.R.





WHAT IS A SUN COLEUS?

Some coleus contain the word "sun" in their cultivar names, and many more are referred to on nursery labels and the like as "sun coleus." Broadly stated, a sun coleus is one that has been observed to tolerate (or has been intentionally produced or selected in formal field studies and breeding programs to tolerate) much more sun than a coleus that must be grown in the shade.

How much sun a coleus can withstand depends on three important factors, namely leaf coloration, leaf thickness, and soil moisture. In general, dark-colored cultivars will tolerate more sun than paler ones, with the yellow selections often lying in the middle of the range. The thicker the leaf, the more sun-tolerant the cultivar should be. Obviously, without enough moisture to support its needs, even the most sun-tolerant coleus will wilt and die, so do not neglect routine watering.

Above left: Coleus collector Bob Pioselli showcases many of his 200 cultivars in and around the covered patio of his home in New York's Hudson Valley, allowing plants to cascade down onto the lawn. Above right: At Wave Hill in the Bronx, a pot of 'Japanese Giant' coleus is flanked by Manihot esculenta 'Variegata' in the foreground and a cone of Thunbergia alata behind.

Over the last quarter-century, home gardeners and gardening style gurus, university horticulture programs, and nurseries big and small have become newly enamored with coleus, not only because of their wide range of foliage colors and ease of growth but also because it has been happily realized that many coleus will tolerate a remarkable amount of sun.

As plant breeders and researchers began selecting new cultivars specifically for their suitability for sunny sites, coleus have emerged from their confinement in the shadows to take their rightful place in both sunny and shady situations.

COLEUS IN THE GARDEN

Coleus make excellent choices for mixed plantings combined with annuals, perennials, and woody plants, offering more color over the entire growing season than many flowering plants.

Coleus represent different things to different gardeners. Some people add individual plants to their garden, placing plants where they see fit according to available space or into a culturally suitable bed or border. Others enjoy collecting many variations on a theme, while a third group of gardeners considers plants as design units to be integrated into the landscape as a whole. Coleus fill all of these roles, making contributions to a wide range of gardens and gardeners.

COLEUS IN CONTAINERS

Coleus grow splendidly in containers and the ability to move container-grown coleus around the garden makes them highly versatile. They can be grown singly as specimens, grouped together with other plants of the same cultivar or with similar or wildly different ones, or combined with a huge range of other plants that prefer the same conditions.

GROWING SPECIMENS

Coleus make excellent choices for growing into impressive specimens for home and garden. A specimen is, to put it sim-





Left: A specimen of 'Alabama Sunset' trained to a conical shape. Above: 'Heart' makes an excellent medium-sized topiary with a single stem topped by a tight sphere of foliage.

ply, a well-grown plant in a container. Here are a few guidelines for selecting and creating a specimen:

- Choose a cultivar that has the potential to produce a good-looking plant—avoid open, floppy, and weak-branched cultivars.
- For optimal growth, pay close attention to light, water, fertilizer, and other needs.
- Turn the pot routinely to prevent the plant from becoming lopsided.
- Pinch the plant routinely to promote compact, dense growth.
- Repot the plant as it grows larger. A large specimen in a small pot will dry out daily and tip over easily.
- Once the plant attains an impressive size and appearance, feature it in a nicelooking pot. Placing a less attractive pot inside a better-looking container—to serve as what is termed a cachepot—is another option.
- Remove dying and dead leaves every now and then to keep up appearances.

COLEUS TOPIARIES

Creating a topiary takes coleus to another level, both literally and figuratively. Many cultivars can be trained into attractive shapes without requiring a large investment of time or effort.

Simply put, a topiary is a dense, ideally symmetrical head of foliage, frequently grown as a standard (on a single bare stem) and produced by routinely pinching the shoots. Creating a topiary is not at all difficult, but it does take some attention to detail. Begin by selecting a cultivar that you feel would produce satisfying results. Items to consider when making your selection include its ultimate height, leaf size, vigor, habit, branching ability, and of course overall beauty.

Ray Rogers is a garden writer and editor. This is his second book collaboration with Richard Hartlage, following on from Pots in the Garden (Timber Press, 2007).

RAY ROGERS'S PICKS

FOR SUN: Florida City series (especially 'Micanopy' and 'Yalaha'), Solar Series ('Solar Eclipse'), 'Alabama Sunset', 'Red Ruffles', and 'Saturn'.

FOR CONTAINERS: Almost any coleus does well in a container, but trailing forms really steal the show, including 'Odalisque', 'Swiss Sunshine', 'Meandering Linda', 'Strawberry Drop', and 'Trailing Salamander'.

FOR SPECIMENS: 'Wine Country', 'Careless Love', 'Sedona', 'Tiger Lily', and 'Pele'.

FOR TOPIARIES: 'Pineapple Queen', 'Meteor', 'Peter Wonder', 'Heart', and 'India Frills'.

Conifer connoisseur Marvin Snyder's garden in Overland Park, Kansas, shows how many surprises can fit into a small space.





COLLECTOR'S GARDEN

Conifer Heaven in the Heartland

BY MARTY ROSS PHOTOGRAPHS BY ALISON BARNES MARTIN

HERE IS GREAT character in small trees, and Marvin Snyder's garden is full of both. His city lot in suburban Overland Park, Kansas, on the highly civilized edge of the prairie, is a collector's garden, intensively and artfully planted with conifers of every description. There are perhaps 250 different conifers here, most of them garden-sized dwarf and miniature varieties, but it is not just a conifer arboretum. Tucked in along the pathways and under the skirts of evergreens are collections within the collection. Above all, it is a garden full of surprises.

Snyder, a retired architect, designed and built his family's home in 1959. He and his late wife, Emelie, were well known in local garden circles; their garden was already a showplace when Snyder planted his first dwarf conifers in the 1980s. At the time, large arborvitaes, ju-





Far left: Pinus strobus 'Curtis Dwarf' up close. Left: A miniature landscape of small spruces with the pretty cone-shaped Picea glauca 'Pixie Dust' on the left. In front of the limestone rock is Picea abies 'Wagneri'; behind it are (left to right) Picea abies 'Kluis' and Picea glauca 'Blue Planet'. The blue conifer in the background is one of Snyder's all-time favorites, Picea pungens 'Saint Mary's Broom'. Above: The garden seen from the patio, with conifers wrapping around like a forest. In the center next to the fountain are Picea abies 'Marie Orffie' and Abies lasiocarpa 'Mulligan's Dwarf'.

nipers, yews, and a few pines were the standard conifers sold in local garden centers, and they had been used and abused by Kansas City gardeners without much thought for generations.

Snyder was looking for distinctive small evergreens, and his curiosity soon sent him to mail-order sources. His first order was for three conifers: a white pine (Pinus strobus 'Nana'), a Norway spruce (Picea abies 'Repens'), and a plum yew (Cephalotaxus harringtonii). Snyder hoped to give his garden more winter interest and to add structure to a prodigious collection of hostas, ferns, and other perennials.

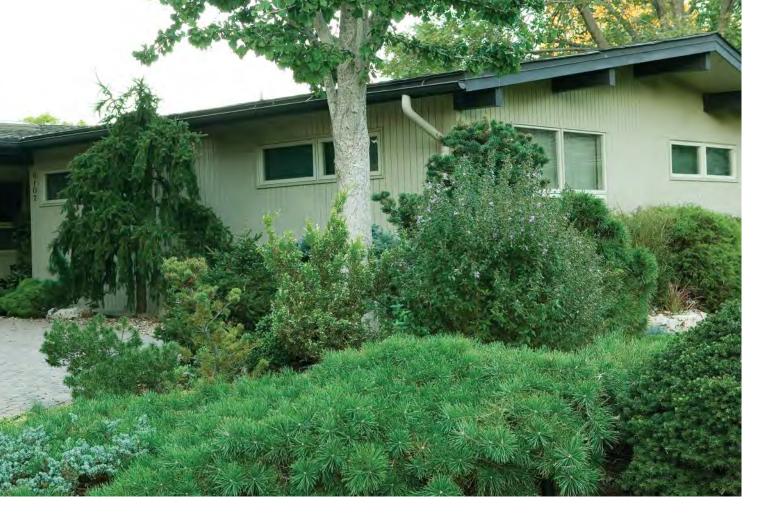
Conifers "were sort of a plaything back then," Snyder says, "but then I started learning." He bought conifers for interesting variegation, bright spring cones, and strikingly deep winter color. Most of them

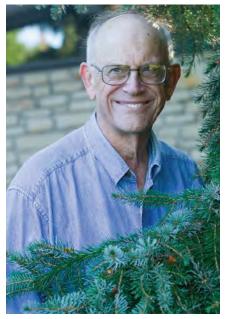
were dwarf conifers, which, Snyder hoped, would not outgrow the garden. Dwarf and miniature conifers, unlike bonsai, are naturally small plants. Everything about them is in perfect proportion. They look just like their wild cousins of the woods and mountains, but their scale allows them to be planted in small gardens.

REGIONAL ADAPTATION

"I don't remember worrying too much about our climate," Snyder says of his first order, admitting that, if he had, the plum yew, considered only marginally hardy in Kansas, would have been scratched. The Kansas City area (USDA Hardiness Zone 5/6, AHS Heat Zone 7) might seem like a cozy climate to winterhardened gardeners in the Northeast and the upper Midwest, but plants that can take really cold winters resent the heat of August in Kansas City, where the normal summer temperature ranges between steamy and sweltering. Cold, windy winters, but without reliable snow cover, are typical. Devastating spring freeze-andthaw cycles are perhaps the ultimate test of a plant's resilience, not to mention a gardener's resolve.

Growing a plant is the only way to get to know it, Snyder has learned. "When you hear that 'this likes full sun', that may be somebody in Oregon talking," he says. "Full sun in Kansas is pretty tough. You have to use a little common sense." Most pines and spruces can take sun, but Snyder has been burned. The Oriental spruce (Picea orientalis) cultivar 'Tom Thumb' now growing in a very sheltered spot on the north side of his garden is his third specimen. "It's not cheap, but I'm determined to have one," he says.





Top: From the sidewalk, conifers of all kinds introduce passersby to the garden. In the center foreground is a prostrate Scots pine, Pinus sylvestris 'Hillside Creeper', about 15 years old, with Juniperus conferta 'Silver Mist' weaving itself among the pine's branches. The large specimen in front of the house is Picea abies 'Pendula'. Above: Marvin Snyder and Picea omorika 'Pendula'.

DESIGNING WITH CONIFERS

Snyder's determination is very apparent to visitors. Panayoti Kelaidis, director of outreach for Denver Botanic Gardens, visited several years ago and remembers the experience vividly: "He made quite an impression on me," Kelaidis says. "Aesthetically, it is impeccable. Marvin is a superb gardener."

Conifer gardens are often rather regimented, with great numbers of plants in soldierly ranks without much thought given to design, Kelaidis says. In the Snyders' garden, he saw both a collector's passion and an architect's hand at work in a living encyclopedia of plants arranged so artfully that the combinations seem effortless. "Marvin's garden is a perfect example of the fact that the best gardens are usually private gardens," Kelaidis says. "It's very sophisticated, a very textural garden."

Foliage and texture and their juxtaposition are infinitely more important to Snyder than flowers. He placed a juniper with a touch of gold (Juniperus conferta 'Sunsplash') beside a bristling spruce (Picea abies 'Pusch'), and a handsome little mugo pine (Pinus mugo 'Sherwood Compact') in the midst of a green mat of

thyme. A spreading pink (Dianthus spp.) complements the luminous blue needles of Picea pungens 'Saint Mary's Broom', one of Snyder's favorite conifers.

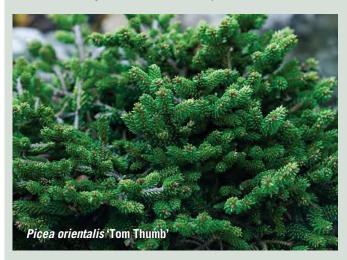
Pale, water-worn limestone rocks edge the beds around the garden and are used as dramatic accents. Limestone outcroppings are part of the regional geology, and cut stone is often used for walls or patios. These uncut "holey boulders" (as they are called in the local trade) are rather unexpected in this context, and they are not easy to work with; Snyder has placed them with care and discernment. Conifers nestle among the rugged stones, clambering over them or clustering thickly around them, as if the plants had grown up from seed through crevices in the rocks. Tiny hostas spread among them; in places, sedums and sempervivums grow out of holes in the rocks, seeming to emerge from deep little grottoes.

In the 1990s, the conifer collection grew by great leaps. Marvin and Emelie became regular customers at Rich's Foxwillow Pines Nursery in Woodstock, Illinois, where their purchases were packed into their station wagon by experts. "They were very skilled about getting one more plant

CONIFERS TO COLLECT

"You never know how something will do until you try it," says Marvin Snyder, a conifer connoisseur and past president of the American Conifer Society. Snyder's garden in Overland Park, Kansas, is a treasure chest packed with unusual plants, including about 250 conifers. Most are in the groups classified by the ACS as miniature, dwarf, and intermediate—all slow-growing conifers that rarely overwhelm their space in the garden.

It's important to remember that the hardiness recommendations and predicted mature sizes for plants that haven't been widely grown, at least not in your area, are just educated guesses, Snyder says. Gardeners who are willing to experiment eventually become the local experts.



Snyder's experience has taught him that it's important to start with a well-rooted specimen, to choose its location carefully, and to plant early in the gardening season, before the heat sets in. He is careful about exposure: scorching summer sun and drying winter winds can severely damage young plants. Kansas City's clay soil is full of minerals, but doesn't drain well. Snyder's raised beds, and years of adding compost and other organic amendments, have improved the drainage and the tilth of his soil. When he plants a new conifer, he loosens the soil but does not amend it further.

Careful attention to watering the first year, including through the winter, if necessary, is essential to new conifers, he says. Here are some of the conifers he recommends:

MINIATURE

These conifers generally grow less than one inch a year, and will be less than one foot tall after 10 years. Hardiness is based on the American Conifer Society's database of plants; heat tolerance on the AHS A–Z Encyclopedia of Garden Plants.

■ Chamaecyparis pisifera 'Tsukumo' A standard Japanese false cypress will grow to be about 70 feet tall, but this one stays tiny, about four inches high and 12 inches across. Snyder praises its compact form and attractive, dark green color. USDA Hardiness Zones 4–8, AHS Heat Zones 8–1.

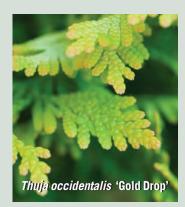
Picea glauca 'Pixie' This very miniature Alberta spruce is full of charm. Snyder doesn't usually like formal, conical Alberta spruces, but he designed a tiny forest of 'Pixie' plants in his garden, none more than about two feet tall, and they're beautiful together. This cultivar can be hard to find; garden railroad enthusiasts snap it up. Zones 3–6, 6–1.

- Picea orientalis 'Mount Vernon' or 'Minima Wells' This is a good-looking, bun-shaped Oriental spruce with very short, tight needles. "I'm kind of partial to Oriental spruce," Snyder says, "and this is an excellent small cultivar." Zones 4–8, 8–1.
- *Picea orientalis* 'Tom Thumb' This golden Oriental spruce is the American Conifer Society's "collector's conifer of the year" for 2007. It was discovered as a witch's broom (a genetic sport discovered growing on a normal-sized tree) on the golden Oriental spruce 'Skylands'. It needs sun, Snyder says, but not too much. Morning sun is best; the golden color is most pronounced on new growth in spring. Zones 4–8, 8–1.
- *Pinus strobus* 'Sea Urchin' Compared to other Eastern white pines, this one looks blue, Snyder says. He calls it "one of the neater white pines," featuring short needles and a tight growth habit. Zones 4–9, 9–1.

DWARF

These conifers grow one to six inches a year, and will be between one foot and six feet tall after 10 years.

- Juniperus horizontalis 'Mother Lode' A marvelous groundcover juniper with great gold color all season long. It doesn't burn in sun, Snyder says, and turns slightly orange in winter. It's a strong accent plant for other plants with yellow foliage or flowers. Zones 3–9, 9–1.
- Picea abies 'Little Gem' Snyder likes this little bird's-nest Norway spruce partly because it's a witch's broom of a witch's broom: 'Little Gem' was discovered growing on P. abies 'Nidiformis', which was developed from a witch's broom on P. abies. It is a very slow grower; spring growth is pale green, almost yellow. Zones 3–8, 8–1.



- *Picea pungens* 'Saint Mary's Broom' This Colorado spruce is one of Snyder's favorite conifers for its misty blue color and compact, mounding form. Ten-year-old specimens in his garden are less than two feet tall. Zones 3–8, 8–1.
- *Thuja occidentalis* 'Gold Drop' The striking yellow-gold variegation on this arborvitae seems to shimmer in the garden year round, but especially in winter. Snyder likes it so well that he has two. It grows very slowly. Zones 2–7, 7–1.

—М.R.

in," Snyder says. "Most anytime I'd come back, I would be concerned about the springs in the car." So Snyder adapted his strategy: "I switched from a station wagon to a van," he says, "so I could get more plants in there."

FINDING FELLOW CONIFER BUFFS

Shortly after he discovered conifers, Snyder joined the American Conifer Society (ACS) and attended his first regional meeting in Chicago. Chub Harper, who was president of the ACS central region, expressed surprise that a gardener was trying to grow interesting conifers in Kansas, but he was not too surprised to put Snyder to work. Snyder was welcomed as a gardener who could reach out beyond the professional and institutional membership to other regular gardeners who hadn't yet discovered the breadth and pleasure of the world of conifers. He left the meeting as the new Kansas representative of the ACS.

His approach was local and convivial. "I thought I ought to start a little club," he says. The Pines and Needles Conifer Club was founded, poaching a handful of members from the Heartland Hosta and Shade Plant Society; word spread, and the Kansas City area was suddenly well represented in the ranks of the ACS.

Snyder served four terms as ACS secretary before becoming the organization's 10th president. He served for three years as president and remained on the board for two years as past president. While he was on the board, the ACS established its website (www.conifersociety.org) and built an online database of conifers. The staid Bulletin became the glossy Conifer Quarterly. Also, during Snyder's tenure, an official new classification of "miniature" was established for conifers that grow less than one inch a year and to less than one foot tall in 10 years. (All the ACS classifications refer to how much conifers grow every year, rather than to their ultimate size.)

LESS CAN BE MORE

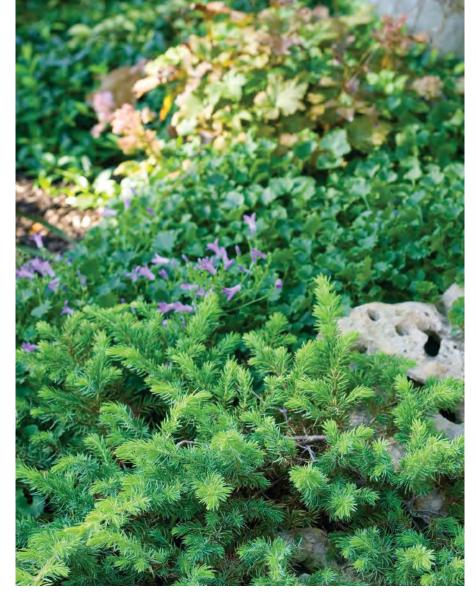
One inch a year is excruciatingly slow growth, but it makes it possible to have dozens of specimens in a regular-sized garden. A mugo pine (Pinus mugo var. mugo), for example, may grow to 15 or even 20 feet tall and wide, which uses up a lot of space. 'Sherwood Compact', a dwarf mugo pine, grows so slowly that, in 10 years, it may still be only two to three feet tall. Such a well-behaved plant is worthy of a spot right next to the patio: it will never crowd the other guests.

"Marvin's garden is of a size that folks can relate to," says Judith Jones, a fern expert who owns Fancy Fronds nursery in Gold Bar, Washington. Jones visited the Snyders' garden several times on trips to Kansas City. "Great plant collections can be seen in public botanical gardens, but I think that seeing the plants in a setting that relates to one's own gardening space works best," she says.

Snyder's house sits on a wedge-shaped lot, 100 feet wide at its widest and 150 feet deep. Over the years the garden has grown—or perhaps it is more accurate to say that the lawn has shrunk-along with his passion for gardening. "I just love plants and the unusual," he says. "If there is a new cultivar, I start studying it,



The flagstone path on the north side of Snyder's garden leads toward a stately Picea orientalis 'Skylands'. In the foreground is a little forest of miniature and dwarf Picea glauca cultivars, just in front of Abies homolepis 'Prostrata'.



Above: A study in textures with, from front to back, *Juniperus conferta* 'All Gold', *Campanula portenschlagiana*, and *Filipendula* 'Fuji Haze'. Above, right: *Pinus mugo* 'Sherwood Compact' and spreading *Thymus quinquecostatus* var. *ibukiensis*.

and with woodies, you almost invariably find there is a dwarf cultivar. I go for the small ones unconsciously almost." Snyder has eight different ginkgoes (Ginkgo biloba) in the garden, several of them not much bigger than a shoebox. He refers to his miniature giant redwood (Sequoiadendron giganteum 'Blauer Eichzwerg') as his "oxymoron plant." It is only one foot tall. "It's a very slow grower and somewhat new, so it's hard to know what it's going to do," Snyder says.

When a plant outgrows its spot, he moves it or takes it out. "I don't hesitate to edit," he says. "I don't mind—if I've had a few years of enjoyment and it gets too big or doesn't look good, I take it out and start over." A new conifer collection being established at Powell Gardens, the botanic garden just east of Kansas City,

is being supplied in part with dwarf conifers that, after more than 20 years, have outgrown Snyder's garden.

CONIFER BUG CATCHES ON

The Kansas City gardening scene has grown up alongside Snyder's garden. Local nurseries have caught the dwarf conifer bug, and now gardeners can find a good selection without leaving town. The Pines and Needles Conifer Club still places an impressive order every year for plants from Stanley and Sons Nursery in Boring, Oregon, and the plants are shipped straight to Snyder's garage. Snyder himself is the local source for the little hinoki false cypress (Chamaecyparis obtusa) cultivar 'Emelie', which was introduced by Larry Stanley of Stanley and Sons in 2005. Named for Emelie Snyder,



it's a true miniature, growing to 10 inches by 10 inches in 10 years.

Dan Hinkley, a plantsman and former owner of Heronswood Nursery, visited the Snyders a few years ago and recalls a garden "of astute plantsmanship," but most of all, he says, "I remember the partnership that he and his wife had together in the garden. This seemed a perfect match, and I could sense how much they both appreciated both the process and the outcome together. It was my first time in the 'heartland' of the continent, and they made a mighty impression."

After almost 50 years in the same spot, Snyder remains fascinated with the details of his garden, with the forms and variety of conifers, and with the challenge of growing untested plants. He and his garden, in a subtle way, make a big statement about how to successfully integrate and grow distinguished small conifers.

"Word is getting around," Snyder says. "There are things other than junipers." \"

Marty Ross is a freelance garden journalist and syndicated gardening columnist for Universal Press Syndicate. She lives in Kansas City, Missouri, and in Hayes, Virginia.

flavors from the past Heirloom Tomatoes



When it comes to growing and eating the best-tasting tomato, there's nothing better than a juicy, homegrown heirloom picked right off the vine. BY KRIS WETHERBEE

▼OMATOES HAVE certainly evolved from their beginnings in Pre-Columbian America, where the berry-sized fruit grew wild in the Andes Mountains. Over time, this native food of the ancient Aztecs and Incas migrated to Central America and Mexico where Spanish conquistadors encountered it; they transported the seeds across the Atlantic, in the process influencing a new culinary tradition in southern Europe.

Since then, tomatoes have spanned the globe and traversed through time. New varieties emerged from accidental or intentional crossings, resulting in different sizes, shapes, hues, and flavor distinctions. Seeds of favorite varieties were passed down from generation to generation; those that persisted became known as heirlooms.

The complexity of colors and intriguing shapes, and the wide range of decidedly unique flavors give heirlooms the upper edge when it comes to diversity. It's that diversity that caught my attention 15 years ago, when I took my first bite of a richly flavored, mahogany colored heirloom known as 'Black Prince'.

THE RISE OF FLAVORLESS HYBRIDS

When mass transportation became available in the 1950s, the essence of the tomato began to decline. Heirloom varieties gave way to commercial hybrids bred to handle the rigors of mechanized harvest-

The Russian tomato 'Black Prince' is an heirloom variety with a rich, smoky flavor.

ing, packing, refrigeration, and long-distance shipping. Tomato skins grew thicker and the fruit became harder. Flavor took a backseat in the breeding of hybrids in favor of characteristics that enhanced productivity, uniformity, disease-resistance, and long shelf life.

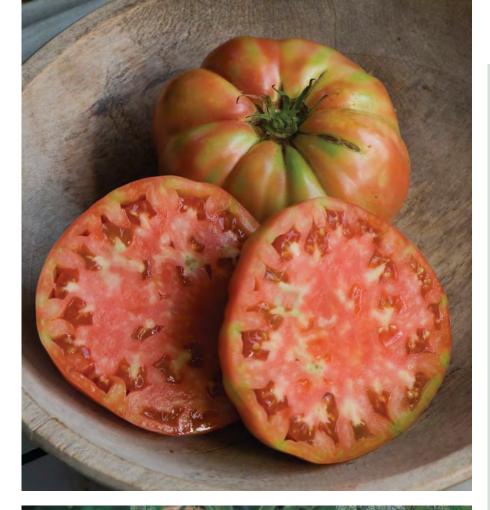
Heirlooms can have their downside. Though some heirlooms are quite productive, many produce lower yields than hybrids. Also, heirloom fruits have softer flesh and thinner skins, making them less suited to long-term storage because they are more likely to bruise or spoil. But tender skins, plump juiciness, appetizing texture, and unadulterated flavor is a big part of what makes growing heirlooms so appealing for a home gardener.

WHAT IS AN HEIRLOOM?

A consensus as to what defines an heirloom still eludes us. One constant that experts agree upon is that it must be an open-pollinated variety. However, not all open-pollinated varieties are heirlooms.

Purists define heirlooms as varieties that are more than 100 years old, but most tomato growers accept any openpollinated variety that has been in existence for more than 50 years as an heirloom. Common classifications include "family heirlooms" (varieties passed down from generation to generation), "mystery heirlooms" (varieties resulting from natural cross-pollination or mutation of other heirloom varieties), and "commercial heirlooms" such as 'Rutgers'. Originally developed in 1934 by Rutgers University in cooperation with the Campbell's Soup Company, this heirloom once produced 70 percent of the processed tomatoes in the United States.

"Whether the genes were passed down through family, friends, or commercially isn't an issue in my book," says Colorado grower Sue Oberle of Oberle Botanical, an eco-friendly farm in Fort Collins. "In fact, there's a pretty good chance that commer-





Top: 'Watermelon Beefsteak' is a meaty, pink-skinned variety with fruit that can weigh two pounds or more. Above: 'Pineapple' is a variety with a sweet and fruity flavor.

cially propagated seed is more likely to be accurate than the seed passed through the average gardener."

POINTS OF DISTINCTION

There are probably somewhere around a thousand varieties of heirloom tomatoes (see "Top-Rated Heirloom Tomatoes" on pages 34 and 35), and many are linked to a rich history or folklore all their own. 'Mortgage Lifter', for example, a large, pink-fruited beefsteak, earned its name when, during the 1940s, M. C. Byles made enough money from selling the plants to pay off his \$6,000 house mortgage.

HEIRLOOM TOMATOES By region

Can't decide which varieties to grow? We asked several experts to weigh in on their top regional favorites. The varietal descriptions follow on pages 34 and 35.

NORTHEAST Tim Stark grows about 100 varieties of tomatoes on 12 acres at Eckerton Hill Farm, near Lenhartsville, Pennsylvania. His top five: 'Brandywine', 'Cherokee Purple', 'Eva Purple Ball', 'Green Giant', and 'Pineapple'.

SOUTHEAST Mike and Judy Cunningham started Country Gardens Farm and Nursery in 1982. Their top five: 'Box Car Willie', 'Brandywine', 'Cherokee Purple', 'German Johnson Pink', and 'Watermelon Beefsteak'.

SOUTH Darrell and Lisa Merrell are heirloom tomato growers based on the outskirts of Tulsa, Oklahoma. Among their top picks are 'Arkansas Traveler', 'Cherokee Purple', 'Germaid Red', 'Royal Hillbilly', and 'Sioux'.

MIDWEST Glenn and Linda Drowns have been growing tomatoes for more than 40 years. The couple maintains 10 acres in seed production and evaluation at Sand Hill Preservation Center in Iowa. Their top four: 'Kellogg's Breakfast', 'Martino's Roma', 'Tiffen Mennonite', and 'Ukrainian Heart'.

MOUNTAINS Colorado market grower Sue Oberle of Oberle Botanical farm in Fort Collins recommends 'Bloody Butcher', 'Cherokee Purple', 'Kellogg's Breakfast', and 'Marmande'.

WEST Heirloom tomato expert Gary Ibsen of TomatoFest.com and founder of the Carmel TomatoFest gives top marks to 'Gary Ibsen's Gold', 'Julia Child', 'Kellogg's Breakfast', and 'Paul Robeson'.

NORTHWEST As a former certified organic market grower, my picks include 'Black Prince', 'Caspian Pink', 'Cherokee Purple', 'Stupice', and 'Tigerella'.

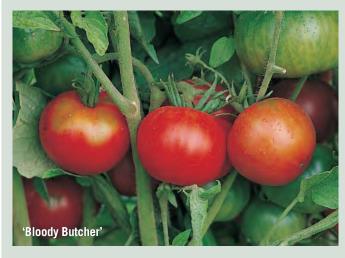
−K.W

TOP-RATED HEIRLOOM TOMATOES

Grouped by the color of their fruit, the following varieties offer a range of flavors, sizes, shapes, and cultural preferences. Average days from transplanting of seedlings to harvesting of tomatoes is given in parentheses.

RED VARIETIES

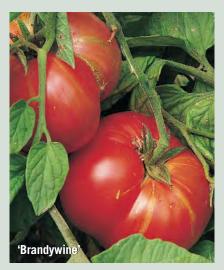
'Bloody Butcher' (65-70 days): Deep red, three- to four-ounce fruits with full-bodied, creamy tomato flavor. Early producer, excellent quality and very little cracking.



'Box Car Willie' (80 days): Slightly flattened 10- to 16-ounce red fruits with an orange tinge. Dependably tasty, very juicy and abundant throughout the season. Disease resistant.

'Brandvwine' (80 days): Big beefsteaktype Amish heirloom with a rich. well-balanced blend of sweetness and acidity. Heavy producer in the Northeast-not suited to hot climates.

'Germaid Red' (80 days): Rare variety with superb tomato flavor—sweet, rich, and juicy. Elongated beefsteak-type with deep red fruits



weighing up to one pound. Produces prolifically.

'Marmande' (68 days): French favorite with traditional red fruits and distinctly rich and full-bodied flavor. Slightly flattened sixto eight-ounce fruits are meaty and great for slicing.

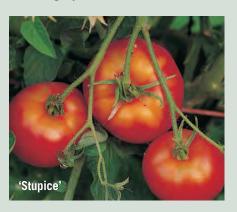
'Martino's Roma' (75 days): Superb, extremely prolific pastetype with richly flavored, three-inch-long meaty red fruits. Great for canning, salsas, sauces, and paste.

'Paul Robeson' (75 days): Rich and robustly flavored fruits are

earthy with a good acid/sweet balance. Dusky dark red skin and red flesh. Good for cooler regions.

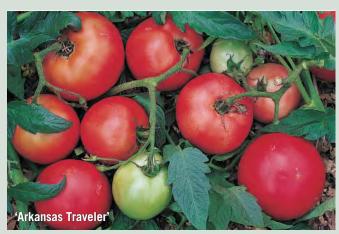
'Sioux' (70-80 days): Prolific producer of two-and-a-half-inch, blemish-free red fruits with a slightly tart old-fashioned tomato fla-

vor. Tolerates heat. pests, and disease. 'Stupice' (55 days): Early, cold-tolerant variety from the Czech Republic bears clusters of ping-pong-ball-size deep red fruits. Great flavor with a good blend of sweetness and acidity.



PINK / ROSE / PURPLE VARIETIES

'Arkansas Traveler' (85 days): Great hot weather producer of tasty, six- to eight-ounce rose-pink fruits with a low acid flavor. Tolerates heat and humidity.



'Caspian Pink' (75-85 days): Intensely sweet and rich Russian heirloom with large pink beefsteak-type fruits that rival 'Brandywine' in popularity and flavor. Great for cooler climates.

'Cherokee Purple' (70-80 days): Medi-



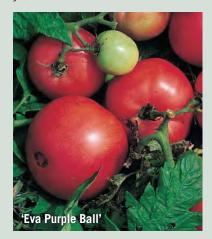
um-large dusky rose fruits with well-balanced, complex flavor—winey-sweet and very intense. Highly productive and disease resistant.

'Eva Purple Ball' (70-74 days): German heirloom bears two- to

three-inch round, dark purple-pink fruits; balanced flavor with creamy texture; disease resistant and very productive.

'German Johnson Pink' (75–80 days): Potatoleaf type with huge pink fruits averaging over one pound. Excellent low acid flavor and great texture; very prolific.

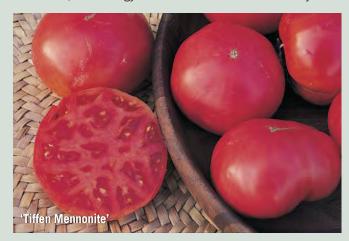
'Julia Child' (78 days): Deep pink, lightly-flut-



ed, 10- to 12-ounce beefsteak fruits have an intensely rich tomato flavor with firm, juicy flesh. Potato-leaf plant is very productive.

'Royal Hillbilly' (80–90 days): Strain of 'Hillbilly', with fruits tinged deep pink to purple. Flavor is exquisite, with a complex blend of sweetness and tartness, snappy yet smooth.

'Tiffen Mennonite' (85 days): Large beefsteak-type pink fruits with a rich, sweet-tangy flavor and smooth texture. Good yields.



'Ukranian Heart' (70 days): Semi-juicy, heart-shaped pink fruits weighing up to two pounds are remarkably productive with a well-balanced fruity flavor.

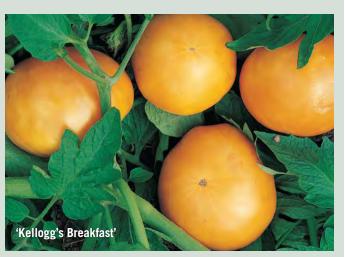
'Watermelon Beefsteak' (75 days): Amazingly big, pink-skinned fruits weighing two pounds or more are mild and meaty with purplish-red flesh.

LEFT. TOP TO BOTTOM (2), AND TOP RIGHT: DAVID CAVAGNARO, BOTTOM RIGHT: RICK WETHERBEE

YELLOW / GOLD / ORANGE VARIETIES

'Gary Ibsen's Gold' (75 days): Globe-shaped 14-ounce fruits are brilliant orange-gold with tropical fruit flavors and enough acid balance to guarantee a burst of tomato flavor.

'Kellogg's Breakfast' (80–90 days): Deep golden orange fruits with bright orange flesh and an exceptional sweet tangy flavor. Thin-skinned fruits have few seeds and are meaty throughout.



GREEN VARIETIES

'Green Giant' (85 days): Lime-green, one- to two-pound fruits are deliciously sweet and one of the best tasting green tomatoes. Potato-leaved German heirloom is vigorous and prolific.

BLACK / MAHOGANY VARIETIES

'Black Prince' (70–80 days): Russian treasure bears salad-size, chestnut to mahogany colored fruits with an intense, distinctively rich flavor. Does well in cool climates.

STRIPED VARIETIES

'Pineapple' (85–90 days): Eye-catching bi-colored fruits streaked with red and yellow inside and out are exotically sweet

with pineapple undertones. Very fruity. 'Tigerella' (75 days): Apricot-sized fruits are red with stripes of yellow and orange. Exceptionally lively flavor; extremely productive vines are disease resistant.



Sources for Tomato Seeds

Baker Creek Heirloom Seeds, Mansfield, MO. (866) 653-7333. www.rareseeds.com.

Gary Ibsen's TomatoFest, Carmel, CA. www.tomatofest.com.

Marianna's Heirloom Seeds, Dickson, TN. (615) 446-9191. www.mariseeds.com.

Sand Hill Preservation Center, Calamus, IA. (563) 246-2299. www.sandhillpreservation.com

Seed Savers Exchange, Decorah, IA. (563) 382-5990. www.seedsavers.org.

Tomato Growers Supply Company, Fort Myers, FL. (888) 478-7333. www.tomatogrowers.com.

Totally Tomatoes, Randolph, WI. (800) 345-5977. www.totallytomato.com.

Heirlooms feature a bit of the unexpected: Fruit can be round, oval, elongated, flattened, ribbed, or even lumpy; some are shaped like pears, acorns, strawberries, or sausages. And while red or yellow tomatoes bring exciting color to the garden and table, heirloom offerings also include shades of gold, orange, pink, purple, deep garnet, and rose as well as green, chocolate brown, white, and multicolored stripes.

Flavor varies from mellow to bold, with acidity levels ranging from naturally sweet to traditionally tart or classic fullbodied taste. Green varieties generally have tangy citrus overtones, sometimes with a spicy-

sweet flavor; yellow types tend to be mild and sweet; bicolored types such as 'Pineapple' or 'Old German' are often fruity; and black varieties such as 'Black Prince' and 'Black Krim' are complex and intense, often described as smoky and rich.

Keep in mind that not all heirloom tomatoes reach their full potential in all regions (see "Heirloom Tomatoes by Region," page 33). "Every heirloom variety is genetically unique," says tomato expert Gary Ibsen. As a grower of organic heirloom tomatoes in central California and founder of the widely popular



Prolific 'Yellow Pear' is sweet and mild.

Carmel TomatoFest®, Ibsen maintains a seed bank of more than 650 heirloom varieties. More than 500 varieties of organic heirloom tomato seeds are available online at www.tomatofest.com. "Inherent in this uniqueness is an evolved adaptation to specific growing conditions and climates," Ibsen adds.

DO TRY THIS AT HOME

No matter where you live, there's no reason to limit your sensory experience to a

SAVING YOUR OWN SEEDS

One of the advantages of saving your own seeds is that you can eventually adapt a strain of the heirloom to thrive in your climate. The technique may differ among seed savers, but the goal is the same—to remove the moist, sticky gelatinlike casing that encapsulates the seeds and prevents them from sprouting inside the fruit.

- 1. Start by selecting fruits that best represent the ideal qualities of the variety.
- 2. Crush the tomato and squeeze the pulp and seeds into an open-topped container, such as a bowl.
- 3. Set the tomato seed-filled container in a warm spot and allow it to naturally ferment for three to five days or until it gets a stinky foam on top. Be sure to write the variety on the container.
- **4.** Remove the filmy sludge that floats to the top and dump the seeds into a strainer: rinse well with cool water.
- 5. Spread out seeds onto a non-coated paper plate, several layers of paper towels, coffee filters, or other absorbent material. Put seeds in a sheltered area (not in the sun) with good air circulation for five to seven days or until thoroughly dry.
- 6. Label the seeds and store in an airtight container with silica gel or a tablespoon of powered milk in a cool, dry, and dark location.

common red slicer when you can experience a cornucopia of flavor. This year, try growing several heirloom varieties. You may just discover a tasty old variety that becomes your new personal favorite. And if you save your seeds from year to year, you may develop a selection with its own interesting features and flavors.

(For advice on site selection, soil preparation, and tomato-growing suggestions, visit www.ahs.org and click on the link to a web special that you will find on the contents page for this issue.) •

Kris Wetherbee and her husband, Rick, grow dozens of heirloom tomatoes in their garden in Oakland, Oregon.





Wonderful Walkways

Artfully designed flower beds can complement even the most pedestrian of sidewalks or walkways.

BY PAM BAGGETT

T'S HARD TO argue with the utilitarian serviceability of a concrete sidewalk or walkway. In its gray uniform, it marches residents and visitors to the front door as firmly as a police officer directing traffic. The message is straightforward and simple to follow, but a concrete sidewalk's visual impact is almost always negative: a chalky, often cracked runway that cleaves the front garden in two. Garden designers often recommend replacing these linear paved paths with graciously curved stone walkways, but the cost of

labor and materials is more than many people can afford. Plants, however, being comparatively cheap, can make your existing sidewalk into the most oft seen and rewarding segment of your landscape. It can become a place to tuck tiny treasures, an inviting welcome for visitors, and a garden for all seasons, be it spring's warm slanting sunlight or an umbrella-shielded dash to the car on a cold, rainy day.

Before you begin tearing up turf and installing ornamentals, though, consider a few practical matters. Advance planning for edging, irrigation, plant selection, and the size and shape of the borders you create will help guarantee an attractive and successful sidewalk garden.

DESIGNING THE BORDERS

The best way to camouflage a concrete walkway is to create beguiling mixed borders along either side. You and your visitors will be so busy admiring the view that the path itself becomes virtually invisible. How wide should your sidewalk beds be? I recommend making each bed

The colorful tapestry of succulents adorning the walkway of Thomas Hobbs' garden in Vancouver, British Columbia, gives it a Mediterranean feel.





Top: Mixed borders of shrubs and perennials, including yellow-flowering lady's mantle (Alchemilla mollis), soften the appearance of this concrete walkway. Above: This curving walkway at a home in Spokane, Washington, benefits from the contrasting heights and textures of the grasses and herbaceous perennials that surround it.

at least as wide as the sidewalk itself, even bigger if you have the space. Narrow borders—like the single strip of liriope often seen edging sidewalks—accentuate the very element you're trying to downplay, that bland strip of concrete. Wide beds diminish the walkway in prominence and allow plenty of room for an alluring mix of plants.

To decide what size borders suit your particular setting, stand at the end of your sidewalk looking toward the front door, since that's the view that will align the beds with your house and foundation plantings. Use string to stake out your proposed planting space, adjusting the lines until you like the layout. Simple, straight borders work well because they echo the long, clean lines of most homes.

A flared pattern in which the beds widen at the end nearest the house does a handsome job of highlighting an attractive front porch. You can also flare the opposite end to frame a gate or join the sidewalk beds to adjacent plantings. A gently curved border may work if it repeats another element within view, but avoid snaky, nervous-looking squiggles.

Edging the borders will give them a finished look, and you may be able to create links between your sidewalk and home that give the design greater cohesion. If your house is brick, for instance, unite it with your footpath by edging both the sidewalk and the outer edges of the borders with perpendicular rows of flat-laid brick, a relatively simple do-ityourself weekend project. Not only will you develop a visual connection between the vertical and horizontal planes (your walls and your walkway), but you'll effectively widen the walk, leaving space for plants to trail out and soften the path without getting stepped on. The outer row of brick, meanwhile, protects plants from the lawn mower or trimmer.

If brick doesn't match your hardscape, treated landscape timbers can also serve as edging, as can any attractive rock or flat paving stone. Be careful that the material you choose doesn't stick out at unexpected angles to trip the unwary.

IMPLEMENTING THE PLAN

Before doing anything, be sure to thoroughly prepare your soil for the kind of plants you intend to plant. This advice



Looking like a meadow in bloom, cottage-garden-style borders featuring roses, foxgloves, and poppies invite visitors to linger along this walkway.

becomes especially important when you consider that every time you re-dig a bed you're disrupting a major thoroughfare to and from your door. While you're laboring, consider whether you want your beds to lie flat with the sidewalk or be raised above it. A gently raised bed could be beneficial—both for visual appeal and for root depth—but avoid building berms so tall that the soil washes onto your path and lawn during heavy rains.

Should you install irrigation? That depends on your budget and the plants you want to grow. Check to see whether your city code requires a professional to do the installation, which would add considerably to its cost. Whether you opt for a professional system or plain old soaker hoses, remember that a wet walkway can be slippery. Time your watering cycles for when you need the sidewalk least. If a xeric garden appeals to you—or if you live in a region with a dry climate—skip the irrigation system and search out plants with a low water budget.

SELECTING THE PLANTS

Though I adore towering tropicals and giant Joe Pyes (Eupatorium spp.), the sidewalk garden is not really the place for those kinds of plants. After all, you're trying to get to the front steps, perhaps with an armload of packages, and the last thing you need is to be molested by your plants. Keep most specimens to a modest height, under three feet or so, or at least place taller plants toward the outer edges of the beds.

If you're including woody plants in your sidewalk display, find out what their ultimate height and girth will be. Some dwarf conifers, for instance, will reach several feet tall and wide in ten years. At only four feet tall and less than two feet in width, narrow columnar conifers such as Taxus × media 'Flushing' and Cryptomeria japonica 'Knaptonensis' offer exclamation points of structure and elegance without fear of overcrowding. Slender evergreens such as Buxus sempervirens 'Graham Blandy' and *Ilex crenata* 'Sky Pencil' could also add height without bulk to your beds.

Aim for year-round interest, which is most easily achieved by a mix of hardy perennials, tender plants, bulbs, and small shrubs. Ever-present perennials—such as early-flowering hellebores, epimediums, and certain sedums and hardy geraniums—serve especially well.

The sidewalk garden is an excellent place to observe the winter aspects of your plants, such as the resting buds of Sedum 'Autumn Joy' as they nestle like clusters of Brussels sprouts at ground level, or the handsome fan-coral skeletons left behind by lesser calamint (Calamintha nepeta) once it goes dormant. Include plants that may be lost in the larger landscape, such as winter-blooming cyclamen or species crocuses and tulips. Rain lilies (Zephyranthes spp. and Habranthus spp.), which blossom after summer storms, could find a home here, where their erratic bloom cycles would not keep them from being noticed.

Banish invasives such as Artemesia ludoviciana 'Silver King' and evening primrose (Oenothera speciosa) from your sidewalk beds, since their underground runners necessitate frequent digging to maintain control.

As in any garden, a mix of textures from delicate to bold will provide the most interest. In shaded sites, hostas, cast-iron plant (Aspidistra elatior), rodgersias, and pulmonarias contribute necessary drama. Sunny, well-drained exposures are enhanced by the large, often silvery leaves of verbascums, not to mention their lovely spires of blossoms. Where winters are warm, bulbous subtropicals such as crinums, taro (Colocasia spp.), and dwarf cannas are bold-leaved possibilities. If your site is sunny and your soil rich, plant peonies—their lush green foliage lasts for months after the blooms have passed.

It has become de rigeur in some artful designs to have plants overlapping pathways, but keep trailing plants to a minimum, or ensure that your walkway is wide enough to accommodate both them and you. Neither you nor your visitors want to risk being tripped, nor do you want to play hopscotch with sprawling verbenas and dianthus.

For safety reasons, also omit thorny or spiky plants such as agaves and most roses, and be careful that the sharp blades of ornamental grasses don't dangle into the

Resources

The American Horticultural Society Encyclopedia of Plants and Flowers, Christopher Brickell and Trevor Cole, editors. DK Publishing, New York, New York, 2002.

Covering Ground: Unexpected Ideas for Landscaping with Colorful, Low-Maintenance Ground Covers by Barbara W. Ellis. Storey Publishing, Boston, Massachusetts, 2007.

P. Allen Smith's Colors For the Garden by P. Allen Smith. Clarkson Potter, New York, New York, 2006.

The Welcoming Garden: Designing Your Own Front Garden by Gordon Hayward. Gibbs Smith Publisher, Salt Lake City, Utah, 2006.



An otherwise pedestrian pathway in Tulsa, Oklahoma, is transformed by the lush, tropical look of plants such as elephant's ear, coleus, impatiens, caladiums, and ferns.

path. Avoid or place out of reach plants whose juices stain clothing—the spent blossoms of spiderworts, irises, and daylilies fall into this category, as does the pollen from most lilies. Where there are flowers, bees will follow, which is another good reason to keep the plants in the beds and not in your footpath.

INCORPORATING TREES

A woody framework of trunks and branches is a necessity for grounding most houses to their sites, so if your yard is missing this important structural element consider expanding your sidewalk borders to include a small tree or pair of trees. If your home's architecture is formal, a matched set of trees will echo that formality. An informal house, like a brick-ranch, could benefit from a single tree placed to one side, particularly when it's used to balance a weighty architectural feature such as a picture-window.

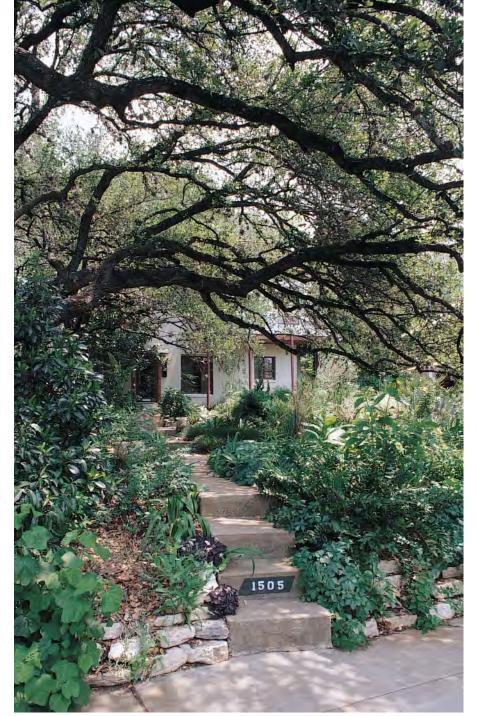
If you decide to include trees, it's critical to consider their ultimate size—both in height and the width of their branches—at maturity. You don't want your trees to brush against the house, climb into power lines, or block your view as they mature. Weeping redbud, *Cercis canadensis* 'Covey', remains a compact six

feet by eight feet, while the newly introduced 'Don Egolf' selection of Chinese redbud (*Cercis chinensis*) forms a multistemmed eight- by ten-foot plant. Our native red buckeye (*Aesculus pavia*), remains under 20 feet tall, as does native fringe tree (*Chionanthus virginicus*). Hybrid witch hazels (*Hamamelis* × *intermedia* cultivars) are good choices, and in the south, the ubiquitous crape myrtle (*Lagerstroemia indica*) is no less beautiful for its abundance in the landscape.

COMPLETING THE SCENE

New beds call for new plants—a gardener's favorite dilemma—but before you race to the garden center, consider how your plant choices will affect the look of your existing landscape. For the most cohesive design, choose plants that complement already-established plantings. A Japanese-style garden with English cottage garden borders along the sidewalk might look a bit strange, for instance.

Use repetition within the borders to accentuate the sense of forward movement while also bringing greater unity to your design. Avoid military precision in your plant placement, though, or you'll feel more like you're running a gauntlet than sauntering to your door. Avid collectors use



the trick of repeating similar plants rather than the same one—columbines (*Aquilegia* spp.), for instance, come in many flower colors, while their foliage looks much the same from variety to variety.

To further unify your home and garden, tie the color of your dwelling to your sidewalk plantings. Live in a white house? Incorporate white penstemons, peonies, or daisies into your planting scheme (along with any other colors that take your fancy, since white is—in this case at least—a neutral shade). A warm yellow wall could benefit from echoing shades of gold and orange, while a cool blue paint job may send you searching

for icy blue hostas and blue-blossomed plants. For a different effect, create color contrasts between your plants and your home—play lots of orange flowers off that cool blue wall, or stage purple ones in front of your yellow house. One trick I learned from a friend is to take paint chips that match the colors of your house or entryway to the nursery so you can get a sense of how different plants might work with the paint colors.

Consider carefully the color scheme you choose to complement a brick house, since typical "red" brick is actually a strong shade of salmon-orange or maroon that is ill-suited as a backdrop for



Left: In Austin, Texas, oxalis and other drought-tolerant perennials line this shady walkway under live oaks. Above: A low-maintenance blend of ground-covering shrubs and herbaceous perennials—including junipers, spireas, liriope, and coreopsis—give a tidy look to this walkway.

certain colors, particularly rosy shades of pink. If you have a brick home and a passion for pastels, use peach, melon, cream, lavender, and plum rather than baby-ribbon pink and rose. Whatever your dwelling's color, be light-handed in the use of silver foliage, which could create an unintentional echo with the dingy gray concrete you're trying to disguise.

As the grand finale, paint your front door to complement your sidewalk planting scheme, then match the porch's hanging baskets to the sweeps of plants in your newly-designed garden walkway. With all that dazzling beauty in sight, no one will ever notice that functional gray strip underfoot.

Pam Baggett is a garden writer in Cedar Grove, North Carolina. Until last year she was proprietor of Singing Springs Nursery, which specialized in colorful and unusual annuals, tropicals, and perennials.

ONE ON ONE WITH...

Harold Koopowitz: Conservation Biologist and Plant Person

by Mary Yee

N HIS BOOK Orchids and Their Conservation (Timber Press, 2001), Harold Koopowitz writes, "The ▲ planet Earth is currently in the middle of one of the most critical events in its entire history. The diversity of life on the planet is the richest...it has enjoyed during its whole geological record. However, at the same time this diversity is threatened and is undergoing one of the most alarming extinction spasms



of all time." He also notes, "Money is usually used to save large and spectacular animals [which] attract more resources than plants, but in the long run, the latter are more important."

Ironically, when he was growing up in South Africa, Harold Koopowitz was torn between choosing a career path in zoology or botany. He ended up getting a doctorate degree in zoology from UCLA in 1968, focusing his research on flatworms, but his interest in plants—especially orchids—has since taken precedence on an illustrious resume that includes 20 years as director of the arboretum at the University of California at Irvine (UCI), where he established the first cryogenic seed bank for wild plants.

Now professor emeritus, Koopowitz still occasionally teaches a course on conservation biology. He is a member of the Species Survival Committee for Orchids for the International Union for the Conservation of Nature, the American Orchid Society, and Orchid Conservation International. He also edits *The Orchid Di*gest. His latest book, Tropical Slipper Orchids, will be published by Timber Press this January.

Mary Yee, managing editor and art director of *The American Gardener*, talked to Koopowitz about the alarming global loss of botanical diversity and some of the issues involved in efforts to stem the tide.

Mary Yee: In Orchids and Their Conservation, you wrote that saving endangered plants is perhaps more critical than saving endangered animals. Could you explain why?

Harold Koopowitz: There are many more species of animals than plantsprobably more than 35 animal species for each plant species. But all animals are dependent on plants either directly or indirectly, and when a plant goes extinct, it can carry an enormous number of animal species with it. Both plants and animals are part of an interacting biosphere. If we lose too many participants, then the whole system will unravel.

What do you think is the primary factor hindering the survival of endangered plants?

Global climate change. We used to think wild plants were safe if we turned the land they were growing on into preserves, but now we're discovering that's not enough to save endangered species.

All plants and animals are adapted to their local environments, and as the environment changes, the resident species must adapt or they will die out. Because of chemical pollution, global warming, and other human-created conditions, change is now happening so fast that there is not enough time for species, especially those that are already threatened, to evolve new adaptations.

Plant environments that are changing very rapidly at the moment are cloud forests and alpine areas. Preserves in those areas are particularly in danger.

Can anything be done by groups or individuals to push for better protection of threatened species?

In the face of rapid global climate change, it is important to bring as many wild species as possible into cultivation and also to build more gene banks for storing seed. A few very large banks exist or are currently under construction, but for insur-

Harold Koopowitz with a Cochleanthes amazonica orchid in his greenhouse, where he pursues plant breeding as a hobby.

ance, we need many more smaller banks.

The best thing that individuals can do to fight global climate change is take care of their family's carbon footprints by recycling, reducing the use of fossil fuels, and the like.

An international agreement called the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), which was enacted in 1975 to, purportedly, protect threatened species by regulating their trade, comes up in any discussion of orchid conservation. Many critics feel it hasn't been effective. What impact do you think it's had on endangered plants?

In terms of saving plants, CITES is a waste of time and money, because it fails to distinguish the differences between large endangered animals and imperiled plants. Unlike animals, plants—because of the myriad seeds they produce and their ability to be propagated by tissue culture—can be rapidly increased in numbers if they are cultivated. Also, black market trade, which can be pervasive, takes place despite CITES.

To my knowledge, not one endangered plant has benefited from CITES. In fact, a recent study about to be published by scientists at Kew Gardens has demonstrated a steady decrease in orchid research and orchid exploration.

Could you explain how CITES hinders protection of plants, including orchids? Because CITES restricts export trade in orchids, salvage of orchid species from areas undergoing deforestation is either very difficult or impossible. The bureaucracy involved in getting CITES permission is tedious and difficult to deal with.

The problem is that CITES's definition of "trade" goes beyond that of commerce to mean *any* movement of a species—dead or alive—or its parts across international boundaries. A scientist in one country needs CITES permits to ship century-old dried herbarium specimens to a scientist in another country who wishes to study them for research purposes!

On a personal note, you breed slipper orchids and daffodils as a hobby. What have you been working on?

With tropical slipper orchids (*Paphiope-dilum* and *Phragmipedium* species), I have been developing smaller plants with daintier flowers that are better suited for growing indoors and on window sills.

With daffodils (*Narcissus* spp.), I have been developing fall-blooming hybrids for 10 years; I have about 50 varieties at this point. These flower from late September to early December and would be most useful for Mediterranean gardening climates.

Besides promoting your book, *Tropical Slipper Orchids*, this spring, what else is on the horizon?

Recently I have started to try to miniaturize cape primroses (*Streptocarpus* spp.) by breeding smaller species with various hybrids. Cape primroses are nice to work with because their seedlings usually flower in less than a year—compared to three to five years for orchid and daffodil seedlings. I am also researching a number of possible books.

Mary Yee is the managing editor and art director of The American Gardener.



GARDENER'S NOTEBOOK

Horticultural News and Research Important to American Gardeners

2008 GREEN THUMB AWARDS

In recognition of "outstanding new garden products available by mail or online," the Mailorder Gardening Association (MGA) has been giving its Green Thumb Award to five new plant varieties and five new tools and accessories each year since 1998. An independent panel of garden writers and editors selects the winners based on their "uniqueness, technological innovaSeed Company; 'Changing Colors' dahlia from Dutch Gardens; 'Bartzella' peony from Wayside Gardens; and April in Paris ('JACprize') hybrid tea rose and Lovestruck ('JACboupu') floribunda rose from Jackson & Perkins Roses.

In the MGA Tools, Supplies, and Accessories division, 2008 winners are: Escar-Go!® Supreme™ from Gardens Alive!; PotHoles Drainage Discs from the Lawn

> & Garden Performance Group; Essex Plant Supports from Gardener's Supply; and Nature's Avenger™ Organic Herbicide and the Kombi Forever Shovel from Beaty Fertilizer, Inc.

The Mailorder Gardening Association bills itself as "the world's largest nonprofit association of companies that sell garden products directly to consumers." For

more information about the organization and descriptions of each of the 2008 MGA Green Thumb Award winners, visit www.mailordergardening.com.







Lovestruck rose, top, and PotHoles Drainage Discs, above, were among the winners of the Mailorder Gardening Association's 2008 **Green Thumb Award.**

tion, ability to solve a gardening problem or provide a gardening opportunity, and potential appeal to gardeners."

This year's winning plants are: 'Opera Supreme Lilac Ice' petunia from Park

SCOTTS FINED FOR ESCAPED GENETICALLY MODIFIED GRASS

As reported in the May/June 2007 issue of The American Gardener, a herbicideresistant, transgenic creeping bentgrass developed by the Scotts Miracle-Gro Company escaped from field test plots in Oregon in 2003. This resulted in a court order last February from the Federal District Court requiring the United States Department of Agriculture (USDA) to more thoroughly review requests to plant test plots of genetically engineered crops.

The USDA's Animal and Plant Health Inspection Service (APHIS) has done just that, recently completing an investigation into the Scotts Company's compliance with the organization's biotechnology regulations when testing the bentgrass. Because Scotts failed to conduct the 2003 field test in a "manner which ensured that neither glyphosate-tolerant creeping bentgrass nor its offspring would persist in the environment," the USDA is fining the company \$500,000, the maximum penalty allowed by the Plant Protection Act of 2000.

According to the USDA, "This is a severe civil penalty and underscores USDA's strong commitment to compliance with its regulations." Scotts is also reportedly taking steps to monitor and remove any transgenic bentgrass that escaped in Oregon.

NEW PROGRAM CONNECTS KIDS WITH NATURE

The movement to get kids into nature has certainly been gathering momentum lately. Joining the effort, the National Park Foundation (NPF) in conjunction with the Lady Bird Johnson Wildflower Center (LBJWC) in Austin, Texas, has established a new program called First Bloom, which "aims to encourage children to participate in hands-on natural resource protection activities in national parks." Announced by the NPF's honorary chair, First Lady Laura Bush, during the NPF's



Luci B. Johnson, left, accepts the Founders Award on behalf of the late Lady Bird Johnson from First Lady Laura Bush, honorary chair of the National Park Foundation.

PEOPLE and PLACES in the NEWS

New Director of San Francisco Botanical Garden

After less than a year as Chief Executive Officer of Klehm Arboretum & Botanic Garden in Rockford, Illinois, Brent



Dennis has become the new director of the San Francisco Botanical Garden at Strybing Arboretum.

"The opportunity to lead this outstanding garden into the future with an eye on presentation and a desire to enhance the visitor experience was one of tremendous appeal to me," says Dennis. "My position of leadership responsibility that also includes the Con-

servatory of Flowers in Golden Gate Park adds an additional dimension that is both enjoyable and motivational."

Dennis has also served as the executive director of the Frederik Meijer Gardens & Sculpture Park in Grand Rapids, Michigan, for nearly a decade, and prior to that, was the executive director of the Franklin Park Conservatory & Botanical Garden in Columbus, Ohio, for four years.

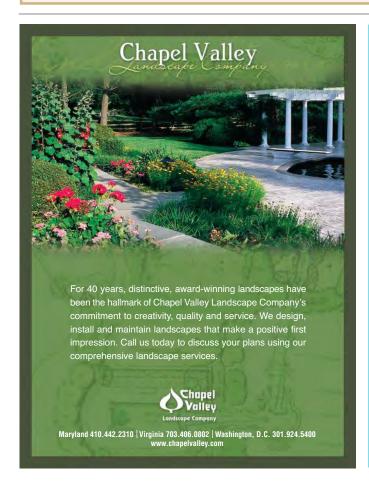
Ball Acquires Darwin Plants

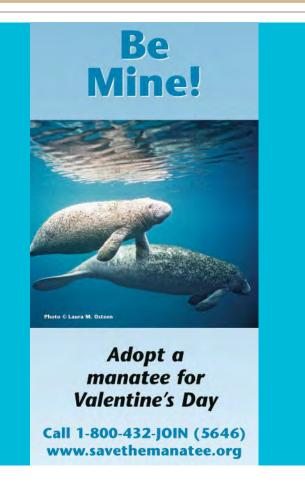
Looking to bolster its perennial offerings, Ball Horticultural Company in West Chicago, Illinois, has acquired Netherlands-based Darwin Plants. According to Ball, which breeds, produces, and distributes ornamental plants for the whole-sale market, "Darwin Plants will maintain its focus on scouting for and promoting new perennial varieties while continuing operations with its existing line of more than 1,000 perennials available as bareroot or young plants." A fourth generation, family-run company, Darwin Plants will continue to operate under its own name with its existing staff. Visit www.ballhort.com for more information.

Farewell to House & Garden Magazine

Readers bid farewell once again to *House & Garden* magazine with the December issue. Published since 1901 with a brief hiatus from 1993 to 1996 when it folded the first time, the magazine closed its doors in November because Condé Nast Publications no longer saw it as a "viable business investment."

"Houses and gardens have inspired wonderful writing and thinking for many, many years—centuries, really," writes Dominique Browning, who was the editor for the last 12 years, in the final issue. She goes on to explain that she wanted to use her columns in each issue to "talk about why houses and gardens were so important...why they were the place that sheltered us, and prepared us to go back out into the world, in the most profound sense possible."





Leadership Summit on Partnership and Philanthropy in October, "the project was designed in honor of Lady Bird Johnson," says NPF's Director of Public and Media Relations Anne Marek.

A \$1 million grant arranged by Philadelphia-based concessionaire ARA-MARK to be paid by the Yawkey Foundation over the next 10 years will help get the project started in five pilot cities this spring: Austin, Texas; Los Angeles, California; New York City; Philadelphia, Pennsylvania; and Washington, D.C. According to Marek, these cities were "chosen for their cultural and socioeconomic diversity, and variety of native species and natural diversity."

Working with the National Park Service as well as community organizations such as Boys and Girls Clubs, the NPF and LBJWC plan to offer workshops about native plants, garden design, and other topics for elementary-school-aged children. Additionally, children will participate in invasive species identification and removal in various National Parks, and will help plant native species as well as design nature gardens in their own communities.

To learn more, call (202) 354-6489 or visit www.nationalparks.org.

HOW PLANTS AVOID SUNBURN

When you're in too much sunlight, you can wear sunscreen to protect your skin or move to the shade. However, plants don't have these options though they, too, are vulnerable to damage from excess light energy, especially in dry or cold conditions. Scientists have known that plants employ a defense mechanism known as photoprotection to solve this problem, though exactly how it works remained a mystery.

Recently, a team of researchers from the United Kingdom, the Netherlands, and France has discovered that plants can change the shape of certain molecules in their leaves, which converts excess light energy into heat. This process happens in less than a billionth of a second, harmlessly dispersing the heat.

Understanding the mechanisms plants use to survive harsh conditions could help scientists predict how plants will cope with climate change. The researchers, whose work was published in the weekly science journal Nature in November, also suggest that these findings

could be useful for developing better solar energy technology.

TOUGH TREES FOR URBAN ENVIRONMENTS

City life can be hard on trees, forcing them to survive everything from compacted soil and road salt to air pollution and hard pruning to avoid power lines. To identify trees that are better able to tolerate all of these challenges, scientists at the U.S. National Arboretum (USNA) have partnered with several other organizations on the "Power Trees Project."

'Homestead' hybrid elms; and 'New Harmony' American elm (Ulmus americana). All of these cultivars are small- to medium-sized at maturity, resistant to pests and diseases, tolerant of environmental extremes, and offer ornamental appeal such as flowers and/or fall color.

"I would like to emphasize that of the nine tree types that were looked at," says John Hammond, head of the Power Trees Project and research leader of the USDA Agricultural Research Service's Floral and Nursery Plants Research Unit





After four years of evaluation, nine urban worthy trees developed by USNA breeders have been selected: 'Brandywine', 'Somerset', and 'Sun Valley' cultivars of red maple (Acer rubrum); 'Natchez' crape myrtle (Lagerstroemia); 'Adirondack' crabapple (Malus); 'Dream Catcher' flowering cherry (Prunus); 'Frontier' and Above: 'Natchez' crape myrtle has shown potential as a good choice for urban environments. It is one of a variety of trees that are being grown at one of the USNA's research fields, left, for ongoing evaluation.

at the USNA, "all are suitable as street trees. Not all are suitable for planting directly under power lines, but are being evaluated for planting in the zone adjacent to power lines."

The Power Trees Project is also comparing container-grown and in-ground planted trees to see which method better prepares trees to cope in urban settings. Because container-grown trees tend to sustain less root damage before planting, the researchers have found they appear to have an initial advantage. Trees will continue to be evaluated at various testing locations over the next several years. For more information, visit www.powertrees.com.

Written by Assistant Editor Viveka Neveln.

50 Years Ago in AHS History: The Azalea Book

THE

AZALEA BOOK

The January 1958 issue of the *National Horticultural Magazine*—a precursor to *The American Gardener*—includes a first announcement of the publication of *The Azalea Book*. Released that March by D. Van Nostrand Company of Princeton,

New Jersey, this was one of the first comprehensive gardening books published under the auspices of the AHS. It is still regarded by many azalea aficionados as one of the most useful and relevant references on azaleas, which are a subset of the genus *Rhododendron*.

"It represents a snapshot in time of what the best minds in the azalea community knew," says William Miller, III, an azalea authority active in the Azalea Society of America and founder of the Azalea Works, an educational and research resource. "From a technical standpoint, it is as useful to the beginner today as it was in 1958. Its primary short-

coming is that it lacks the 40-plus years of new azalea introductions that have come along since 1965," Miller adds.

The original announcement describes the author, Frederic P. Lee, as a "well known amateur horticulturist and specialist in azaleas and plants for the shady garden." Lee, who was living in Bethesda, Maryland, at the time, was also an officer and director of the American Horticultural Society and served as

chairman of the U.S. National Arboretum's Advisory Council. He received the AHS's gold medal and citation for his "horticultural activities, including his work with azaleas," as well as a gold medal from the American Rhododendron Society.

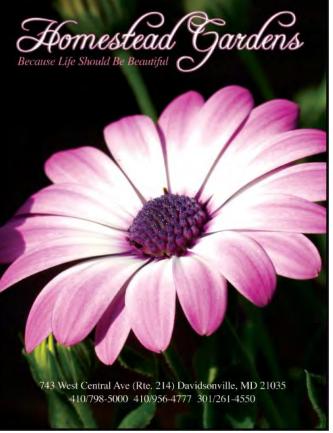
Several other well known horticulturists of the day collaborated with Lee on the manuscript, including former AHS President John Creech, who at the time was head of the USDA's Plant Introduction Garden in Glenn Dale, Maryland, and later became director of the U.S. National Arboretum. Benjamin Y. Morrison, who bred and introduced 445 Glenn Dale hybrid azaleas from 1930 to 1952 while serving as the first director of the arboretum, also lent his considerable knowledge to the book.

A second edition was published in 1965. In a note to readers, Lee explains that while it relies heavily on the first edition, it is an "extensive revi-

sion in a wholly new format and arrangement. More important, it covers many new topics and includes much new material." This edition was reprinted in 1978 and 1980 by Theophrastus Publishers of Rhode Island. Although none of the editions of the book are currently in print, copies can often be found through antiquarian book dealers and online booksellers.

—Viveka Neveln, Assistant Editor







Solving the Container Conundrum

by Rita Pelczar



T T'S A gardener's quandary: As you add new plants to the garden Leach year, what do you do with all the used containers? If you're like me, the resulting stack of empty pots, cell packs, and flats is way more than you can reuse before it starts to grow again the following fall or spring. And forget giving them to your neighbors-most of them face the same problem.

The accumulation of used containers in your garage or garden shed is a snapshot of a much larger issue. They take up lots of space, and too many of them are finding their way to local landfills. There are alternatives.

REUSING PLASTIC POTS

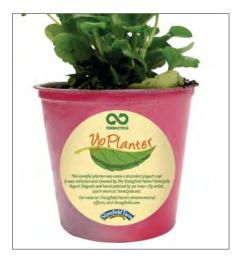
According to a 2004 estimate by Penn State University's College of Agricultural Science, each year 320 million pounds of plastic are used to produce nursery pots, cell packs, and flats. Most of these products are reusable or recyclable.

The major concern with reusing plastic containers is that diseases may be spread through the soil residue left behind after the plant is removed. Large scale cleaning and disinfecting is costly and time consuming. This is not the case in the home garden where a good scrubbing of each used pot in a 10-percent bleach solution is a fairly simple chore. A gardener may then reuse the old pots or donate them to schools or local organizations that can use them. Some nurseries accept their own used containers if you return them cleaned.

In addition to reusing plant containers, non-plant containers sometimes find a new lease on life as plant pots. Many plastic deli and snack food containers are great for starting seeds indoors, after they are cleaned and outfitted with a few drainage holes. Small yogurt cups can be used for starting seeds or cuttings; larger yogurt containers accommodate young plants until they are ready for transplanting into the garden.

Last September, TerraCycle, a company that produces organic fertilizer in recycled soda bottles, began a program with Stonyfield Farm called the "Yogurt Brigade" that collects yogurt containers from schools and various non-profit groups for recycling as plant pots. The containers are collected, cleaned, and shipped in boxes supplied by TerraCycle; each box holds 400 yogurt containers. And for each container collected, Stonyfield donates two to five cents, depending on its size, to the charitable organization or school selected by the collecting group.

According to TerraCycle publicist Albe Zakes, more than 180 groups from North Carolina to Maine, and west to Ohio, have participated to date. Once TerraCycle receives the cleaned containers, two drainage holes are drilled in the bottom of each, then they are airbrushed in different colors to make them more attractive. The re-designed containers will be distributed to nurseries for sale as



Yogurt containers can be reused as planters.

plant pots. "We're hoping to have our first shipment out in February," says Zakes. For more information about the program, or to learn how to get involved, visit www.terracycle.net/brigades.

RECYCLING: AN INDUSTRY-WIDE ISSUE

When you find yourself with more pots and flats than you can find homes for, recycling is the next best option. But recycling plant containers isn't as simple as recycling milk jugs or water bottles. First of all, plant containers are not uniform: several types of plastic are used and only some are marked to identify them; most recycling programs limit the types of plastic they will take and many require separation of the different types. Second, plastic containers need to be clean for recycling in most programs, which can be impractical. And third, unlike used milk jugs or water bottles, which produce a steady stream of recycling, most used plant containers are seasonally generated—primarily in spring.

"Gathering post consumer horticultural plastic is very difficult to do," says David Steiner, vice president of Blackmore Company located in Belleville, Michigan. Blackmore manufactures plant containers using about 80 percent post industrial polystyrene in their processing. "The volume spikes in the spring and the remainder of the year there is not really enough available to make collection or processing economical," says Steiner. "That said, plastic is very recyclable if the economics and mechanisms are there."

Recycling is becoming an increasingly viable option as more agricultural recycling programs are initiated. Many growers are



Growers can reduce their waste stream and save money by recycling used containers.

TIPS FOR REDUCING YOUR USE OF PLASTIC IN THE GARDEN

- Wash and reuse plastic containers, cell packs, and flats.
- Donate excess containers to schools or other organizations.
- Use clean, recycled containers (yogurt cups, milk cartons) or biodegradable pots for starting plants indoors.
- Buy compost and mulch in bulk rather than bags.
- Buy fertilizer in concentrated solutions for mixing with water.
- Take old flats or cardboard boxes to the nursery to carry home new plants rather than using a new flat.
- Ask your nursery or garden center if they recycle plastic pots and volunteer to help.

interested in such programs not only for the environmental benefit of reducing solid wastes, but because recycling can save money. The rising cost of petroleum has increased the price of new plastic containers. Add to that the tipping fees charged for disposing of used plastic in landfills, and recycling makes economic sense.

To promote recycling of horticultural plastics by New Jersey growers, the New Jersey Department of Agriculture (NJDA) has established an online listing of private vendors who collect plastic for recycling. Although only one vendor, Cindarn Recycling of Upperco, Maryland, is listed so far, the impact has been significant. "In 2006, 88.6 tons of high density polyethylene (HDPE) and polystyrene (PS) were recycled by eight New Jersey growers using Cindarn," says Karen Kritz, NJDA's agricultural plastics recycling coordinator. "Participants saved in excess of \$7,000 in landfill tipping fees and generated almost \$4,000 in revenue by selling the material directly to Cindarn," Kritz reports. Cindarn is working to establish recycling programs with nurseries in several other states.

The Minnesota Nursery and Landscaping Association (MNLA), AGSI Plastics of Savage, Minnesota, and the Minnesota Pollution Control Agency have combined forces to sponsor a recycling program for the public, which allows gardeners to drop off their clean



plastic pots at collection sites located at specified garden centers and nurseries. "In 2006 we collected 105,000 pounds; this year [2007] we have collected more than 1,000,000," says MNLA education director Meaghan Phelan.

On the West Coast, Agri-Plas, Inc. of Brooks, Oregon, collects used nursery pots and trays along with other agricultural plastic products from collection bins placed at 50 area nurseries. They recycle approximately 80,000 pounds of plastic waste per week. The plastic is fed through large machines where it is chipped and cleaned before it is sold to manufacturers.

BOTANIC GARDENS STEP FORWARD

The William T. Kemper Center for Home Gardening at the Missouri Botanical Garden (MOBOT) in St. Louis initiated its recycling program in 1997. "Our approach was to engage the green industry and the public at the same time," explains Steven Cline, manager of the program. Public collection includes both a satellite system where recycling trailers are placed at garden

ally hand us their pots," says Cline. The program also provides a specific time during the week for nurseries to bring their plastic in truckloads.

In 2007 MOBOT set a new record by collecting more than 100,000 pounds of horticultural plastic, for a total of more than 300 tons of recycled plastic in the past 10 years. Environmental Recycling, Inc., of St. Louis recycles this plastic into raised-bed garden kits, compost bins, and landscape timbers. Proceeds from the sale of these products are used to sustain the recycling program.

Other public gardens and organizations have taken note of MOBOT's success and are engaging in their own recycling efforts. At the Chicago Botanic Garden, volunteers clean pots for reuse. The surplus pots are shipped to Canada for recycling. The Botanical Gardens of Alaska in Anchorage combined forces with Alaskans for Litter Prevention and Recycling (ALPAR) and the Smurfit-Stone Recycling Center to host a Nursery Pot Recycling Day in July.

BIODEGRADABLE POTS

Plastic, however ubiquitous, is not the on-

centers and weekend collection days when gardeners come to the garden "and personly material from which plant pots are made. Above: The Missouri Botanical Garden's recycling program processes thousands of pounds of horticultural plastic with the help of volunteers and a chipping machine. The

chipped plastic, left, is used to make landscape timbers and other garden products.



Made of composted cow manure, CowPots can be planted directly in the ground, where they will degrade in a few weeks.

A variety of materials are being utilized to produce biodegradable pots.

Widely available Jiffy Pots, Jiffy Pellets, and Jiffy Strips have been around for many years. They are made out of pressed sphagnum peat and wood pulp and are designed for starting seeds or new plants from cuttings. When the young plant is ready for transplanting into the garden, the pot needn't be removed because it will degrade over time. When planting a Jiffy Potgrown plant however, it may be advisable to tear off the top of the pot above the soil line to avoid exposure to air, which can cause the pot and its contents to dry out.

Also made to be planted, Cow-Pots™are composed of compressed, composted cow manure. Invented by Matt and Ben Freund, second-generation dairy farmers from northwest Connecticut, these biodegradable pots are odorless, and although they can last for months in a greenhouse, they decompose in four weeks after being planted in the ground. As they degrade, they release nutrients that promote plant growth. Cow-Pots™ are currently available in threeand four-inch sizes.

The Ball Horticultural Company has selected Summit Plastic Company as the exclusive distributor of its new biodegradable and compostable Circle of Life™ pots. The pots are made of rice hulls and are available in six sizes, from

biodegradable."





three-and-a-half inches to a gallon. "We do not recommend that the pots actually be planted into the ground, but they can easily be crushed and tossed in the home gardener's compost pile to degrade within a few months," says Ball Public Relations Manager Jessie Atchison. "If the gardener does not have a compost pile or the space to start one, these pots are still better for the environment in the long run because they are completely

More durable, but still biodegradable, are **Ecoforms**, a line of planters made out of grain husks and natural bindings such as corn. They range in size from three-and-a-half to 12 inches in diameter and are available in six colors. **Enviroarc** biodegradable plant pots are made of agricultural residues, primarily bamboo

Made from biodegradable materials rather than plastic, Ecoforms, above, come in a variety of colors and shapes. Circle of Life pots, left, can be composted.

pulp. They are available in a wide variety of colors, shapes, and sizes.

Ellepots[™], invented by Ellegaard, a Danish company, are composed of a cylinder of growing media wrapped in paper fiber. They are intended primarily for the nursery industry to be used for starting plants from seed or cuttings. The only plastic used in the Ellepot system is a tray to hold and move the pots. Blackmore Company is the exclusive distributor in North America of the machines and the special paper used to make Ellepots.

New technologies are being investigated for the development of more biodegradable plant containers. At the University of Nebraska in Lincoln, researchers are evaluating pots made from a biodegradable plastic polymer derived from corn. And at Virginia Tech's College of Agriculture and Life Sciences in Blacksburg, a blend of poultry feathers and eggs is showing promise as another source of biodegradable material that has the additional advantage of utilizing a waste product of the poultry industry.

WORKING TOGETHER TO REDUCE WASTE

If we all reuse as many plant containers as possible, recycle those we cannot use, and use biodegradable containers when appropriate, we can significantly reduce the amount of plastic that ends up in landfills.

Sources

Agri-Plas, www.agriplasinc.com.

Ball Horticultural Company Circle of Life Program,

www.circleoflifeplants.com.

Blackmore Company, www.blackmoreco.com.

CowPots, www.cowpots.com.

Ecoforms, www.ecoforms.com.

Enviroarc, www.enviroarc.net.

Resources

Buy-Recycled Series: Landscaping Products, *www.epa.gov/epaoswer/ non-hw/procure/pdf/landscape.pdf.*

GreenScapes, www.epa.gov/Green Scapes/pubs/brochure.htm.

Missouri Botanical Garden Plastic Pot Recycling Program, www.mobot.org/ hort/activ/plasticpots.shtml.

(See "Tips for Reducing Your Use of Plastic in the Garden," page 49.) Also ask your local garden center if it participates in a pot recycling program; if enough customers show interest, new recycling centers may be established. Pot recycling has great potential as a project for youth groups, garden clubs, and other civic organizations.

Another means of discouraging waste is to make a point of seeking out those products that use recycled material in their production. The Environmental Protection Agency (EPA) publishes a list of products that contain recycled material in their Comprehensive Procurement Guidelines (CPG). Several landscaping products—many of which contain recycled plastic from used plant containers—are listed (see "Sources and Resources," above). By purchasing products made from recycled material, we encourage recycling efforts and minimize waste.

Rita Pelczar is a contributing editor for The American Gardener.

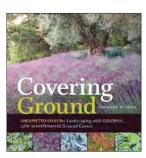


Recommendations for Your Gardening Library

Covering Ground

Barbara W. Ellis. Storey Publishing, North Adams, Massachusetts, 2007. 224 pages. Publisher's price, hardcover: \$29.95.

THE OFFERING OF new garden books that come into the market yearly is, quite simply, an embarrassment of riches. Lur-



ing us with the promise of making us better gardeners, they stack up on coffee tables, cause bookshelves to bow, and overflow from night stands. In an effort to tame this abundance, about two years ago I went through my collection, saving, of course, Hortus III, the Graham Stuart Thomas tomes, and the ones inscribed to me by garden

writers I know. The others went to a used bookstore and I swore off buying any new garden books.

So, I'm not going to buy a copy of Covering Ground, I'm buying two: one for my library and one for the Elisabeth C. Miller Library at the University of Washington Botanic Gardens. Why? This book meets all my requirements for a must-have book. It is well written and richly illustrated with high quality photographs that show me things I've never seen or thought of before. Most importantly, it is informative and insightful.

Ellis looks at groundcovers with a fresh and knowledgeable eye. For example, I've grown and loved Hydrangea anomala ssp. petiolaris for 35 years crawling up and sprawling across an east facing garden wall. I never envisioned it scrambling over a rough, rocky site, but now I do. Ellis encourages the reader to consider sweeps of Sedum ternatum for the dry shade. She endorses carpeting the ground under the soaring white trunks of Himalayan birch (Betula utilis var. jacquemontii) with the white blossoms and dark lime foliage of Galium odoratum. And with an egalitarian spirit too seldom seen in garden books, she celebrates the virtues of *Vinca minor* and Japanese pachysandra.

Having guided the reader through the process of choosing and combining groundcovers for nearly every situation, Ellis goes on to cover topics such as site preparation, organic methods of weed eradication, planting slopes, and propagation techniques.

Next time I'm faced with a problem spot or long to rejuvenate a weary patch, I'll reach for this book, as it indeed leaves no ground uncovered.

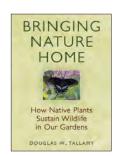
—Steven R. Lorton

Recently retired after more than 30 years with Sunset magazine, Steven R. Lorton is a writer and lecturer who gardens in Seattle, Washington, and in the North Cascade Mountains.

Bringing Nature Home

Douglas W. Tallamy. Timber Press, Portland, Oregon, 2007. 288 pages. Publisher's price, hardcover: \$27.95.

AS URBAN EXPANSION destroys wildlife habitats, there's little room left for wildlife except in our landscapes and gardens.



Home gardeners further reduce wildlife through poor plant selection, argues Douglas Tallamy, a professor of ecology at the University of Delaware. He advocates reversing this trend by restoring native plants—which he broadly defines as "any plant that historically grew in North America"—to our landscapes.

Tallamy builds his case with researchbased facts enhanced with engaging per-

sonal stories. He begins by pointing out that the typical suburban landscape comprises an expansive lawn along with a few trees and shrubs originating from other countries. These "alien" plants, such as Norway maple and Japanese honeysuckle, not only outcompete and replace native plants, but also may unleash destructive exotic pests.

Examining the evolutionary links between native plants and native wildlife, Tallamy engagingly explains how native wildlife and insects do not or cannot feed on alien plants. Consequently, both wildlife and insect populations are smaller in areas where non-native plants dominate, as numerous studies have shown.

The second half of the book describes how to reinstate native plants into the landscape. Tallamy offers inspirational native design ideas with a focus on creating balanced landscapes and increasing insect diversity (e.g. avoid monocultures, plant densely, widen beds and borders). To sustain the predator/parasitoid equilibrium, a baseline of integrated pest management (IPM), Tallamy does counsel tolerance for some pest damage.

The final chapters and appendices include descriptions of specific native plants and the insects they support, supplemented by outstanding photographs. Correspondingly, common insects are described and shown in detail to help lay people identify them. Superb charts cross-reference native trees, shrubs, perennials, grasses, ferns, and groundcovers by region. A detailed butterfly/moth list catalogs their host plants, along with a Q&A chapter and data supporting the book's premise.

Logical and convincing, this book is an essential guide for anyone interested in increasing biodiversity in the garden.

—Deborah Smith-Fiola

After 25 years as a university professor and Extension agent, Deborah Smith-Fiola is now a landscape IPM consultant in Maryland.

The Herb Society of America's Essential Guide to Growing and Cooking with Herbs

Edited by Katherine K. Schlosser. Louisiana State University Press, Baton Rouge, Louisiana, 2007. 376 pages. Publisher's price, hard-cover: \$29.95.

COMPILED BY many members, both novices and professionals, of the Herb Society of America (HSA) and edited by Kather-

The Herb Society of America's

ESSENTIAL GUIDE TO GROWING AND COOKING WITH HERBS

ine Schlosser, this book is full of information on cultivating herbs, history and lore, recipes, and more.

The book is divided into three sections, with the first part containing profiles of 63 herbs cultivated in the National Herb Garden's Culinary Garden at the U.S. National Arboretum in Washington, D.C. The descriptions of these Generally Recognized As Safe (GRAS) herbs are well researched and cover the individual cultivation and

culinary characteristics of the herbs. There is also a separate section of herbs that are not GRAS, where it is interesting to find plants—such as anise hyssop (*Agastache* spp.), salad burnet (*Sanguisorba* spp.), and beebalm (*Monarda* spp.), to name a few—that some of us have been cooking with for years. There is also a list of herb trees in this section. As for the artwork, there are attractive botanical sketches for just about every other entry.

The second and largest section of the book offers more than 200 herbal recipes—ranging from appetizers to desserts—submitted by HSA members. All of the selected recipes were tested before publication. In the interest of full disclosure, I must acknowledge here that I am a member of the HSA as well as a recipe contributor. However, I am a cookbook author and editor as well, so I have a very critical eye. The recipes are both traditional and innovative—not to mention creative and delicious.

The last section of the book, which could be a small book unto itself, is a personal tour of the National Herb Garden with detailed descriptions and plant lists of each of the 13 herbalthemed gardens at the National Arboretum. While herbalists and gardeners will find this section useful and interesting, it may not appeal to those who are just looking for basic information on growing and cooking with herbs.

Having written garden-to-kitchen cookbooks that cover two aspects of herbs in one book, the only problem that I foresee here is where you might find this book in the bookstore—since it could be placed in either the gardening or cooking sections. This book should be in the collection of any herbal enthusiast, be they a beginner or an experienced gardener and/or cook.

-Susan Belsinger

A contributing editor for The Herb Companion, Susan Belsinger has written and co-authored 17 books. Her most recent publication, The Creative Herbal Home, is co-authored with Tina Marie Wilcox.



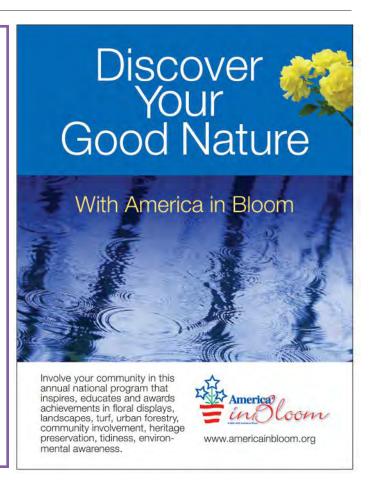
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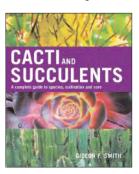
GARDENER'S BOOKS

A Salute to Succulents

UCCULENTS ENCOMPASS some of the weirdest, wildest, and most dramatic plants on earth so it's no wonder they have whole organizations devoted to them. While a good many of them are spiky and spiny (think cacti), what sets these plants apart is the ability to store water in order to survive prolonged dry spells. However, that's not to say they are only denizens of the desert—succulents have also adapted to life in habitats ranging from forests to high-altitude plains, not to mention gardens. And as houseplants, many succulents don't mind a bit if you tend to be a little on the neglectful side in that department as long as they have a well-lighted spot.

Here are a few recently published books that explore the incredibly diverse world of succulents.

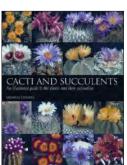
"Few other plants offer as many opportunities for creating solid, bold shapes and contrasting textures as cacti and succu-



lents," writes Gideon F. Smith in *Cacti and Succulents* (Ball Publishing, 2006, \$29.95). To prove his point, Smith uses the bulk of the book to profile a "selection of striking species included in some of the more popular cacti and succulent plant families," each one accompanied by a color photograph. The hardiness range for each listed plant is also given—generally somewhere be-

tween USDA Zones 5 and 11. In addition, Smith devotes a few pages to discussing the botanical characteristics of succulents and cacti, covering some basics about cultivation, and describing six public gardens around the world with impressive collections of these plants.

Cacti and Succulents by Graham Charles (The Crowood Press, 2007, \$35) is another option for getting a broad overview of



this group of plants. After a brief look at the features that set succulents apart from other plants, their natural habitats, and cultivation requirements, the book lists more than 250 species and genera "chosen either because they are the most attractive of their kind and are currently popular with growers, or they are reasonably easy to obtain either as seed or young plants." The book is aimed more at collectors grow-

ing succulents under glass so it does not give hardiness information, but it still offers a fascinating sampling of this plant group's tremendous diversity. More than 400 color photographs illustrate the pages, and I particularly appreciated that many of the images show a close up view of dazzling cacti and succulent flowers.

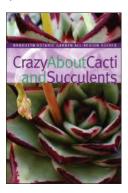
For those more interested in integrating succulents into the outdoor garden, *Hardy Succulents* by Colorado-based Gwen



Moore Kelaidis (Storey Publishing, 2008, \$19.95) focuses on species that can "withstand short (or long) periods of -20 degrees Fahrenheit," including many that can survive as far north as Canada. However, Kelaidis does caution that several other factors, including humidity and waterlogged soil, also

play an important role. Chapters organize succulents into their potential garden uses, for example in containers or perennial borders and as groundcovers or specimen plants. Chock full of inspiring color photographs and insightful sidebars, this book is a practical guide to incorporating succulents into your garden, no matter which region you call home.

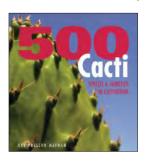
Crazy About Cacti and Succulents published by the Brooklyn Botanic Garden (2006, \$9.95) also offers guidance on select-



ing hardy species. Organized as a collection of essays written by various experts and edited by garden writer Ray Rogers, this slim volume offers two chapters on hardy cacti and succulents, many of which can tolerate temperatures down to -20 degrees F. Other topics in the book include conservation tips to protect the 2,000 species facing extinction in the wild, medicinal succulents, propagation techniques, indoor cultivation, and succulent bonsai,

with color photographs on nearly every page.

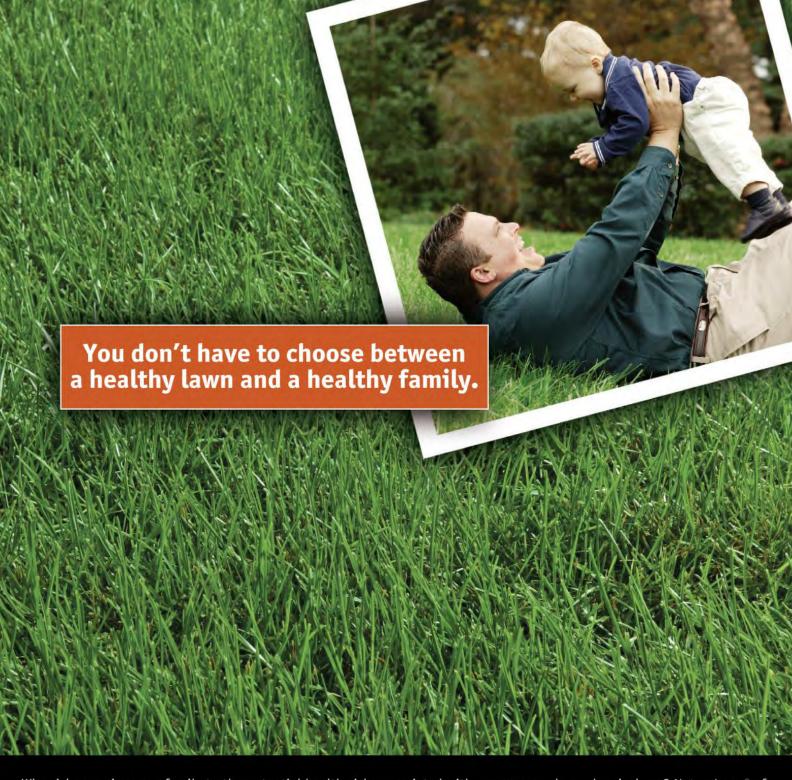
If cacti in particular hold your fascination, **500 Cacti** by Ken Preston-Mafham (Firefly, 2007, \$29.95) provides an encyclo-



pedic look at this family of succulents that comprises approximately 1,800 species. Though cactus nomenclature has experienced some upheaval recently, the author chose to use names that are "most likely to be found in lists of cactus plants or seeds for sale, or on the label on a pot" to avoid confusion when trying to acquire these plants.

Each entry includes a brief description and color photograph, along with a sidebar containing information about the plant's form, flowers, spines, and provenance.

—Viveka Neveln, Assistant Editor



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REGIONAL HAPPENINGS

Horticultural Events from Around the Country

NORTHEAST

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

RAP JAN. 23. Whatchamacallit: Names and Order in the Plant Kingdom. Class. Arnold Arboretum of Harvard University. Boston, Massachusetts. (617) 524-1718. www.arboretum.harvard.edu.

RAP JAN. 24. **Meadow Gardens.** Lecture. Tower Hill Botanic Garden. Boylston, Massachusetts. (508) 869-6111. www.towerhillbg.org.

FEB. 6–8. **New England Grows!** Exposition and conference. Boston, Massachusetts. (508) 653-3009. *www.negrows.org.*

FEB. 9. **Spring into the Garden.** Symposium. Connecticut Horticultural Society. Portland, Connecticut. (860) 529-8713.

AHS FEB. 21–24. **Connecticut Flower & Garden Show.** Hartford, Connecticut. (860) 844-8461. *www.ctflowershow.com.*

AHS FEB. 21–24. **Rhode Island Spring Flower & Garden Show.** Providence, Rhode Island. (401) 272-0980. www.flowershow.com.

FEB. 28. Horticulture Lecture with Bill Cullina. Lecture and book signing. New England Wild Flower Society. Wellesley, Massachusetts. (508) 877-7630. www.newfs.org.

Looking ahead

RAP MAR. 7. **Creating Green Roofs Step-by-Step.** Educational session. New York Botanical Garden. Bronx, New York. (718) 817-8700. *www.nybg.org.*

MID-ATLANTIC

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

RAP JAN. 27. Invasive Plants: Identification, Impacts and Control of Common North American Species. Lecture. Green Spring Gardens. Alexandria, Virginia. (703) 642-5173. www.greenspring.org.

JAN. 27–FEB. 1. **Mid-Atlantic Horticulture Short Course.** Virginia Horticulture Foundation. Virginia Beach, Virginia. (757) 523-4734. *www.mahsc.org.*

AHS FEB. 14–17. **New Jersey Flower & Garden Show.** Edison, New Jersey. (800) 332-

Events sponsored by or including official participation by AHS or AHS staff members are identified with the *AHS* symbol.

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

3976. www.macevents.com.

RAP FEB. 15. **Tree Care Symposium.** Lewis Ginter Botanical Garden. Richmond, Virginia. (804) 262-9887. www.lewisginter.org.

AHS FEB. 15–17. **Mid-Atlantic Home & Flower Show.** Virginia Beach, Virginia. (757) 523-4737. *www.vahort.org.*

FEB. 21. Land Ethics Symposium: Creative Approaches for Ecological Landscaping. Bowman's Hill Wildflower Preserve. New Hope, Pennsylvania. (215) 862-2924. www.bhwp.org.

FEB. 22. **Green Matters Symposium: Sustainable Landscapes.** Brookside Gardens. Wheaton, Maryland. (301) 962-1453. *www.brooksidegardens.org.*

FEB. 23. **Winter Design Workshop.** Horticultural Society of Maryland. Lutherville, Maryland. (410) 821-5561. www.mdhorticulture.org.

FEB. 28-MAR. 2. **Mid-Atlantic Garden Show.** York, Pennsylvania. (717) 846-3339. www.midatlanticgardenshow.com.

Looking ahead

AHS MAR. 2–9. Philadelphia Flower Show. Pennsylvania Horticultural Society. Philadelphia, Pennsylvania. (215) 988-8899. www.theflowershow.com.

AHS MAR. 13–16. Washington Home & Garden Show. Washington, D.C. (703) 823-7960. www.washingtonhomeandgarden show.com.

SOUTHEAST

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

JAN. 18–20. **Southern Gardening Symposium.** Callaway Gardens. Pine Mountain, Georgia. (800) 225-5292. *www.callawayonline.com.*

RAP JAN. 19 & 20. **Annual Camellia Show.** Camellia Society of Central Florida and Harry P. Leu Gardens. Orlando, Florida. (407) 246-2620. *www.leugardens.org.*

AHS JAN. 30–FEB. 3. **Southeastern Flower Show.** Atlanta, Georgia. (404) 351-1074. *www.flowershow.org.*

RAP FEB. 9. **Perennial Plant Symposium and Silent Auction.** Atlanta Botanical Garden. Atlanta, Georgia. (404) 876-5859. www.atlantabotanicalgarden.org.

RAP FEB. 15. **Conifers: Garden Design Seminar and Workshop.** State Botanical Garden of Georgia. Athens, Georgia. (706) 542-1244. *www.uga.edu/botgarden.*

RAP FEB. 22. Landscape Camellias for North Carolina. Lecture. Wing Haven Gardens & Bird Sanctuary. Charlotte, North Carolina. (704) 331-0664. www.winghavengardens.org.

FEB. 23. Joy of Gardening Symposium: Gardening for Outdoor Living. Master Gardeners of York County. Rock Hill, South Carolina. (803) 981-5303. www.mastergardenerofyorkcounty.org.

Looking ahead

MAR. 3 & 4. Davidson Horticultural Symposium: Herbaceous Havens— Creating Garden Sanctuaries. Davidson, North Carolina. (704) 655-0294. www.davidsonsymposium.org.

MAR. 5–9. **Festival of Flowers.** Show. Providence Hospital Foundation. Mobile, Alabama. (877) 777-0529. www.festivalofflowers.com.

NORTH CENTRAL

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

RAP JAN. 12–FEB. 8. Paradise Lost? Climate Change in the North Woods. Art exhibit. Olbrich Botanical Gardens. Madison, Wisconsin. (608) 246-4550. www.olbrich.org.

New Indoor Children's Garden at Longwood

IN 1987, Longwood Gardens in Kennett Square, Pennsylvania, installed one of the first children's gardens in the country. As part of then-Longwood graduate student Catherine Eberbach's thesis project, it was only designed to last one year. However, it was so popular that it was redesigned in its original East Conservatory location as a

permanent exhibit three years later.

When the time came to rebuild the 1926 conservatory structure, Longwood staff decided to significantly expand and redesign the Children's Garden as well. So, 10 years ago members of the design team traveled to children's gardens around the world to study what works best in children's garden designs. Children of all ages were invited to attend focus groups to discuss what they would like to see in the garden.

"We wanted children to have a stake in it from the ground up," says Longwood Communications Manager Patricia Evans. And Longwood listened. The planning and design team, led by landscape designer Tres Fromme, created drooling dragons, water worms, spitting fish, and water curtains—17 water features in all—as well as a Bamboo Maze, Grotto Cave and Tunnel, Secret Room, and a Pelican Fountain.

"Though Pierre du Pont did not have children of his own, he loved children and always welcomed them into his garden," says Paul Redman, Longwood Gardens director. "An integral part of our mission is 'to promote the art and enjoyment of horticulture for the public, while providing opportunities for research for learning'—and that includes both adults and children," adds Redman.

Construction began in 2004 and

the new 4,000-square-foot Indoor Children's Garden (three times larger than the original) opened last fall. A truly spectacular display, it is as permanent and captivating as the Main Fountain Garden and the Topiary Garden, with surprises at every turn.

For more information, visit www.longwoodgardens.org or call (610) 388-1000. —Caroline Bentley, Editorial Assistant





One-of-a-kind bronze fountains such as The Birds Nest, top, and Pelican, above, invite young visitors to discover the joys of being in a garden.

JAN. 26. Native Landscaping. Toward Harmony with Nature Conference. Fox Valley Chapter of Wild Ones. Oshkosh, Wisconsin. (920) 987-5587.

RAP FEB. 2. Sustainability Symposium. Cleveland Botanical Garden. Cleveland, Ohio. (216) 707-2816. www.cbgarden.org.

RAP FEB. 2. Where Are Your Roots? Soil lecture. Chicago Botanic Garden. Glencoe, Illinois. (847) 835-5440. www.chicago botanic.org.

RAP FEB. 5. New Elms for Re-Greening America. Lecture. Morton Arboretum. Lisle, Illinois. (630) 968-0074. www.mortonarb.org.

RAP FEB. 22. Woody Plant Symposium. Chicago Botanic Garden. Glencoe, Illinois. (847) 835-5440. www.chicagobotanic.org.

Looking ahead

AHS MAR. 8–16. Indiana Flower & Patio Show. Indianapolis, Indiana. (317) 576-9933. www.hsishaus.com.

SOUTH CENTRAL

AR. KS. LA. MO. MS. OK. TX

RAP FEB. 2-MAR. 16. Annual Orchid Show. Missouri Botanical Garden, St. Louis, Missouri. (314) 577-5100. www.mobot.org.

RAP FEB. 9, 16, & 23. Vickers Landscape Design Series. Three-part course. Botanica, the Wichita Gardens, Wichita, Kansas, (316) 264-0448. www.botanica.org.

FEB. 16. Lawn and Garden Seminar & Show. Jefferson County Master Gardeners and the Pine Bluff/Jefferson County Clean & Beautiful Commission. Pine Bluff, Arkansas. (870) 534-1033.

AHS FEB. 22–24. Arkansas Flower & Patio Show. Little Rock, Arkansas. (501) 821-4000. www.arflowerandgardenshow.org.

RAP FEB. 23. Native Plant Spring Symposium. Lady Bird Johnson Wildflower Center. Austin, Texas. (512) 292-4200. www.wildflower.org.

Looking ahead

AHS MAR. 5–9. Wichita Garden Show: Green Living for Life. Wichita, Kansas. (316) 946-0883. www.wichitagardenshow.com.

AZ, NM, CO, UT

RAP JAN. 23. Connoisseur in the Garden. Lecture. Denver Botanic Gardens. Denver, Colorado. (720) 865-3500. www.botanic gardens.org.

JAN. 26. Australia Day. Festival. Boyce Thompson Arboretum. Superior, Arizona (520) 689-2723. http://arboretum.ag.arizona.edu.

JAN. 29. Nevada Landscape Association Trade Show & Conference. University of Nevada Cooperative Extension and Reno Urban Forestry Commission. Reno, Nevada. (775) 673-0404. www.nevadanla.com.

RAP FEB. 27. Care of Desert-Adapted Plants. Workshop. Desert Botanical Garden. Phoenix, Arizona. (480) 941.1225. www.dbg.org.

WEST COAST

RAP JAN. 25. Pruning and Care of Landscape Fruit and Nut Trees. UC Davis Extension. Davis, California. (800) 752-0881. www.extension.ucdavis.edu/agriculture.

FEB. 14. Designing With Elegant Silvers. Lecture. Southern California Horticultural Society. Los Angeles, California. (818) 567-1496. www.socahort.org.

RAP FEB. 16. Pruning Heritage Roses. Workshop, Mendocino Coast Botanical Gardens. Fort Bragg, California. (707) 964-4352. www.gardenbythesea.org.

FEB. 28-MAR. 2. Pacific Orchid Exposition: Orchids Gone Wild. San Francisco. California. (650) 548-6700. www.orchid sanfrancisco.org.

Looking ahead

MAR. 4. Arbor Day Tree Planting. Cuyamaca College Nursery. El Cajon, California. (619) 660-4262. www.cuyamaca.edu/ohweb.

RAP MAR. 8. African Violet Show & Sale. South Coast African Violet Society. South Coast Botanical Garden. Palos Verdes Peninsula, California. (310) 544-6815. www.southcoastbotanicgarden.org.

AHS MAR. 12–16. San Francisco Flower & Garden Show. San Francisco, California. (415) 771-6907. www.gardenshow.com.

NORTHWEST

AK, ID, MT, OR, WA, WY

RAP JAN. 30. Zuni Waffle Gardening. Class. Idaho Botanical Garden. Boise, Idaho. (208) 343-8649. www.idahobotanicalgarden.org.

AHS JAN. 30-FEB. 3. Tacoma Home & Garden **Show.** Tacoma, Washington. (253) 756-2121. www.tacomahomeandgardenshow.com.

RAP FEB. 8-17. Glass Art Celebration. Exhibit. Cheyenne Botanic Gardens. Cheyenne, Wyoming. (307) 637-6458. www.botanic.org.

AHS FEB. 20–24. Northwest Flower & Garden Show. Seattle, Washington. (206) 789-5333. www.gardenshow.com.

FEB. 20-24. Portland Home & Garden Show. Portland, Oregon. (503) 246-8291. www.otshows.com/PHS/phs.htm.

FEB. 23. What's New in 2008. Lecture. Idaho Botanical Garden. Boise, Idaho. (208) 343-8649. www.idahobotanicalgarden.org.

CANADA

FEB. 14. Growing Perennials From Seed. Class. Arboretum at the University of Guelph. Guelph, Ontario. (519) 824-4120 ext. 52113. www.uoguelph.ca/arboretum.

RAP FEB. 23. **Designing with Plants.** Class. Glendale Gardens & Woodland. Victoria, British Columbia. (250) 479-6162. www.hcp.bc.ca

FEB. 28-MAR. 2. Calgary Spring Home & Garden Show. Calgary, Canada. (403) 209-3555. www.calgaryhomeshow.com.

California's First Chinese Garden

LUNAR NEW YEAR promises to be especially radiant at the Huntington Library and Botanical Gardens in San Marino, as the esteemed institution ushers in a stunning addition—California's first Chinese garden. The new garden's name, Liu Fang Yuan the Garden of Flowing Fragrance—evokes images of venerated scholar gardens of 17thcentury China. During an era when artists acted as garden designers, the traditional naming of gardens alluded to poetry and literature. And like a classical painting, Liu Fang Yuan is picture perfect.

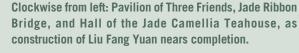
Impressive in its scope, the three-and-a-half-acre classical Suzhou-style garden is the first phase of a 12-acre project. Nestled within a woodland setting, the landscape brings to life 2,000 years of Chinese culture with its fundamental elements of sculptural stone

and water features, spectacular pavilions, and Asian plants. Pathways reveal a succession of intimate vignettes, of ornate buildings linked by granite bridges, and a tranquil lake set apart by islands and a rockery.



Throughout the hardscape, graceful embellishments exemplify the meticulous craftsmanship of Chinese artisans; among them, the fluid calligraphy of poetic inscriptions, filigreed wood, carved stonework, and in the main courtyard, patterns of fourpetaled flowers set in the mosaic paving.

Another feature to admire is the presence of



craggy Lake Tai rocks placed about the landscape; their forms epitomize the uncommon beauty and distinctive character of the Chinese garden.

Visitors will be drawn to a teahouse for refreshment, and to the terrace beyond. Perched over the lake, the structure directs your gaze towards the San Gabriel Mountains rising up in the distance. Most dramatically, a waterfall cascades down a canyon in a symphony of scent and sound. Here, you enjoy a feast for the eyes: a panoramic vista of rushing water flanked by lavish plantings of camellias and bamboo.

Liu Fang Yuan opens to the public on February 23. For more information, visit www.huntington.org or call (626) 405-2100.

—Alice Joyce is Garden Walks columnist for the San Francisco Chronicle





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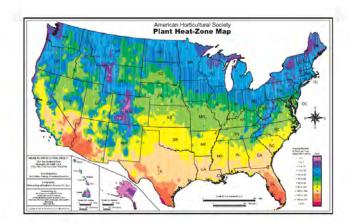


PRONUNCIATIONS AND PLANTING ZONES

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

While the zones are a good place to start in determining plant adaptability in your region, factors such as exposure, moisture, snow cover, and humidity also play an important role in plant survival. The codes 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.

To purchase a two-by-three-foot glossy AHS Plant Heat Zone Map for \$9.95, call (800) 777-7931 or visit www.ahs.org.



A-C

Abies homolepis AY-beez ho-mo-LEP-iss (USDA Zones 4-7, AHS Zones 7-4) A. lasiocarpa A. las-ee-o-KAR-puh (5-6, 6-5)

Achillea millefolium ah-kih-LEE-uh mih-lih-FO-lee-um (3-9, 9-1)

Alchemilla mollis al-kem-ILL-uh MOLL-iss (4-7, 7-1)

Asclepias tuberosa as-KLEE-pee-us too-bur-O-suh (4-9, 9-3)

Aspidistra elatior as-pih-DIS-truh ee-LAY-tee-or (7-11, 12-4)

Begonia semperflorens beh-GON-yuh sem-pur-FLOR-enz (0-0, 12-1)

Betula utilis var. jacquemontii BET-yew-luh yew-TIH-lis var. jah-kweh-MON-tee-eye (4-9, 9-3)

Buxus sempervirens BUCKS-us sem-pur-VY-renz (6-8, 8-6)

Callicarpa dichotoma kal-lih-KAR-puh dy-KOT-o-muh (5-8, 8-5)

Calamintha nepeta kah-luh-MIN-thuh NEP-eh-tuh (5-9, 9-5)

Campanula portenschlagiana kam-PAN-yewluh por-ten-shlag-ee-AN-uh (4–7, 7–1)

Cephalotaxus harringtonii sef-uh-lo-TAK-suss hair-ring-TOH-nee-eye (6-9, 9-3)

Cercis canadensis SUR-siss kan-uh-DEN-siss (4-9, 9-2)

C. chinensis C. chy-NEN-sis (6-9, 9-3) Chamaecyparis obtusa kam-ee-SIP-uh-riss ahb-T00-suh (4-8, 8-3)

C. pisifera C. pih-SIF-ur-uh (4–8, 8–1) Chionanthus virginicus ky-o-NAN-thus vir-JIN-ih-kus (4-9, 9-1)

Chrysothemis pulchella kris-o-THEE-miss pul-KEL-uh (11, 12-7)

Cotinus coggygria ko-TY-nus

ko-JEE-gree-uh (4-8, 8-3) Cryptomeria japonica krip-toh-MAIR-ee-uh jah-PON-ih-kuh (6–9, 9–4)

D-P

Eriobotrya japonica air-ee-o-BOT-ree-uh jah-PON-ih-kuh (8-11, 12-8) **Euonymus fortunei** yew-ON-ih-mus for-TOON-ee-eye (4-9, 9-1) Ginkgo biloba GINK-go by-LO-buh (5-9, 9-5)

Hamamelis vernalis ham-uh-ME-liss vur-NAL-iss (4-8, 8-1)

Hibiscus acetosella hy-BISS-kus uh-set-o-SEL-luh (10-11, 12-1) H. moscheutos H. mos-KOO-tos

(5-10, 12-1)

Hydrangea anomala ssp. petiolaris hy-DRAN-juh ah-NOM-ah-luh ssp.

pet-ee-o-LAIR-iss (4-9, 9-1) H. paniculata H. pan-ik-yew-LAY-tuh (4-9, 9-1)

Ilex crenata EYE-leks kreh-NAY-tuh (5-7, 7-3)

Juniperus conferta joo-NIP-er-iss kon-FUR-tuh (6-9, 9-1)

J. horizontalis J. har-ih-zon-TAL-iss (3-9, 9-1)

Lagerstroemia indica lag-ur-STRO-me-uh IN-dih-kuh (7-9, 9-7)

Ligularia dentata lig-yew-LAIR-ee-uh den-TAY-tuh (3-8, 8-1)

Manihot esculenta MAN-ih-hot es-kew-LEN-tuh (10-11, 12-7)

Nyssa sylvatica NIS-suh sil-VAT-ih-kuh (5-9, 9-2)

Osteospermum ecklonis os-tee-o-SPUR-mum ek-LON-iss (10-11, 8-1)

Panicum virgatum PAN-ih-kum vur-GAY-tum (4-9, 9-1)

Picea abies PY-see-uh AY-beez (3-8, 8-1)

P. glauca P. GLAW-kuh (3–6, 6–1)

P. orientalis P. aw-ree-en-TAL-iss (4–8, 8–1)

P. pungens P. PUN-ienz (3–8, 8–1)

Pinus mugo PY-nus MYEW-go (3–7, 7–1)

P. strobus P. STRO-bus (4–9, 9–1)

P. sylvestris P. sil-VES-triss (3-7, 7-1)

Q-Z

Sedum ternatum SEE-dum ter-NAY-tum

Sequoiadendron giganteum suh-kwoy-uh-DEN-dron jy-GAN-tee-um (6-9, 9-6) Salvia farinacea SAL-vee-uh fah-rih-NAYsee-uh (8-11, 12-1)

Solenostemon scutellarioides

so-len-O-stee-mon skoo-tuh-lo-ee-OY-deez (11-12, 12-1)

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

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

Taxus × media TAK-suss MEE-dee-uh (4-7, 7-1)

Thunbergia alata thun-BUR-jee-uh ah-LAY-tuh (11, 12-10)

Thymus quinquecostatus var. ibukiensis TY-muss kwin-kweh-koh-STAY-tuss

var. ih-boo-kee-EN-sis (7-9, 9-1) Thuja occidentalis THEW-yuh

ahk-sih-den-TAL-iss (2-7, 7-1) Veronica prostrata ver-ON-ih-kuh

pros-TRAY-tuh (6-9, 9-6)

Weigela florida wy-JEEL-yuh FLOR-ih-duh (4-8, 8-1)

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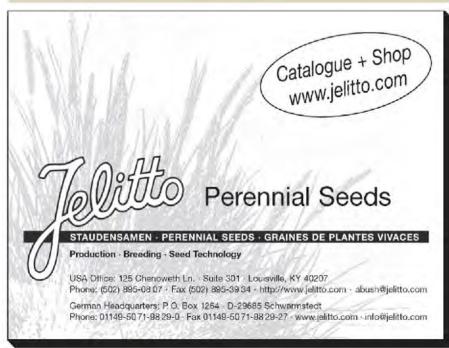
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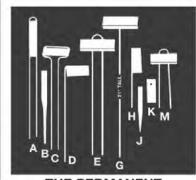
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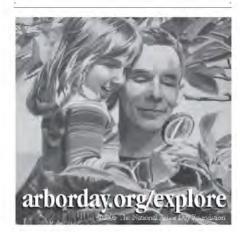
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PLANT IN THE SPOTLIGHT

Skunk Cabbage: This Intriguing Native Heats Up Winter

by Graham Rice

THE SKUNK CABBAGE (Symplocarpus foetidus) is one of the most curious and widespread wild-flowers of the upper midwestern and northeastern United States. Its disparaging common name tends to devalue a fascinating plant that, while certainly not a horticultural marvel, is sometimes cheekily referred to as the American hosta (especially for the benefit of overseas visitors). But a number of unusual features makes this relatively demure plant quite intriguing.

Its flowers are shaped much as you would expect from a member of the arum family (Aracaceae). An outer hood or cowl, technically known as the spathe, is just a few inches tall and sits at ground level. Its color varies from plant to plant ranging from dark maroon at one extreme to pale green at the other and in between a wide variety of streaked and speckled patterns.

The spathe shelters a stubby spike of floral parts, the spadix, which can usually only be seen by going down on your hands and knees—but this may be getting a little too personal,

for then you'll notice a not altogether pleasant smell. The strength of this odor varies with the temperature and, perhaps, the time of day. But since the skunk cabbage is the first wildflower to open in earliest spring, the chill air often reduces the smell to a level humans can hardly detect.

A wide variety of insects, mainly beetles and flies, have been found inside the flowers, and it was generally assumed that the smell attracted the requisite pollinating insects. Experiments have revealed, however, that the flowers can also be wind pollinated. Either way, little seed is actually produced, and deer or birds may eat what does begin to ripen in late summer.

HOT STUFF

But when the plants begin flowering in March, two unexpected features become apparent. One is that the flowers are thermoregulatory—they raise their temperature above that of the surrounding area. This is sometimes clearly demonstrated





Top: Heat generated by skunk cabbage flowers melts snow around them. Above: In moist sites, colonies of skunk cabbage provide attractive masses of bold foliage.

when you see snow melting in a ring immediately around the flowers. This rise in temperature intensifies the "fragrance," which attracts pollinators.

The second feature that becomes obvious if you come across these plants early in the season is that sometimes they are dug up and eaten. The fat starchy roots of skunk cabbage are a favorite food of black bears, which are emerging from hibernation and needing to fatten themselves up.

As the leaves unfurl, more evidence of the bears' attention may be obvious-sometimes clear, bite-sized pieces are munched out of individual

leaves, or the whole crown of the plant may be torn apart. But undamaged plants soon open their bold, paddle-shaped leaves, which arch out from the crown, sometimes reaching 18 inches long.

USES IN THE GARDEN

It is the boldness and the general habit of skunk cabbage foliage that draw comparisons with hostas. They make striking plants in damp or boggy ground in sun or part shade, developing into large colonies over time. They are tough too, hardy in USDA Zones 3 to 7 and heat tolerant to AHS Zones 8 to 2.

Given the opportunity in a naturalistic garden setting, the skunk cabbage makes up for its lack of flamboyance with its other intriguing characteristics.

Award-winning garden book author Graham Rice is the editor-in-chief of the American Horticultural Society Encyclopedia of Perennials.





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