The American GARDENER.

The Magazine of the American Horticultural Society

January / February 2011

New Plants for 2011

Unusual Trees with Garden Potential

The AHS's River Farm: A Center of Horticulture







For more information on including the AHS in your estate planning and charitable giving, or to make a gift to honor or remember a loved one, please contact Courtney Capstack at (703) 768-5700 ext. 127.

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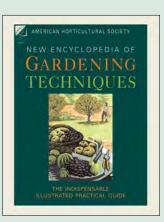
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—Dominique Browning
The New York Times



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"You'll find step-by-step instructions for pruning, watering, propagating; information about all categories of plants...sections on organic techniques and recycling; and how to treat pests and disease.... Consider it a plant-lover's mutual fund—a little of this and little of that, in a dandy investment."

—Ginny Smith Philadelphia Inquirer

"This is a must have for gardeners and landscape designers."

—Joel M. Lerner The Washington Post

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Inniswood Garden Society • Morris Arboretum • Oklahoma Botanical Garden & Arboretum

NOTES FROM RIVER FARM

UR RIVER FARM headquarters in Alexandria, Virginia, is the crown jewel of the American Horticultural Society. The acquisition of this 25-acre property in 1973, through the generosity of philanthropist Enid A. Haupt, gave the AHS national prominence, energized a staff previously habituated to working from a series of cramped, rented office spaces, and provided us with a spectacularly beautiful showcase from which to communicate our national mission.

Yet despite its charismatic setting and historic significance, River Farm is not without its challenges. The buildings, most constructed in the 1920s and 1930s, are showing their age; the property requires significant upkeep; and, from time to time, critical infrastructural components, like our wells, have faltered, compromising not only safety, but our staff's ability to do their day-to-day duties such as organizing educational programs, putting together the magazine, maintaining the gardens, and hosting children's groups.



Tom Underwood and Harry Rissetto

The AHS is now at another one of those crossroads, and we need your help. Our immediate needs are basic and not very glamorous—as stewards of this historic property that borders the Potomac River, we must transition from septic fields and wells to the municipal water and sewer system. On top of that, our electrical wiring and cabling is outdated in this era of digital communications. The costs of these critical improvements are well beyond our normal resources. So we are asking all our members and friends to make a special gift to help the AHS meet this critical and urgent need. Your support will empower the AHS to focus all its energies on expanding the programs that are central to the success of our national mission.

How does one fundraise for an infrastructure project such as this? After much discussion and debate, we decided on a unit of measure familiar to every gardener. Approximately 4,000 feet of pipe and cable will be used in the project. Each gift of \$250 will support one foot of piping or new cable needed. A gift of \$750 will take us a yard closer to our goal for this campaign.

To give you a sense of River Farm's significance as the AHS's national headquarters, in this issue we have published an updated account of River Farm's history, its importance to the AHS mission, and its value to America's gardeners. Once you've read this, we trust you will understand why we are so committed to River Farm and to the infrastructure project. Please help us reach our goal by sending a contribution of any amount in the envelope included in this issue.

Also in this issue, you will find features on fragrant annuals, cutting-edge trees, and growing carnivorous plants in containers. And we are debuting a new column, "Garden Solutions," to help you solve common garden problems.

Happy gardening!

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



CONTACTS FOR AHS PROGRAMS, MEMBERSHIP BENEFITS & DEPARTMENTS

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

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

DEVELOPMENT To make a gift to the American Horticultural Society, or for information about a donation you have already made, call (800) 777-7931 ext. 127.

E-NEWSLETTER To sign up for our monthly e-newsletter, visit *www.ahs.org*.

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

NATIONAL CHILDREN & YOUTH GARDEN SYMPOSIUM For information about the Society's annual National Children & Youth Garden Symposium, call (800) 777-7931 ext. 137 or visit the Youth Gardening section of www.ahs.org.

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

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

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

WEBSITE: www.ahs.org The AHS website is a valuable source of information about the Society's programs and activities. To access the members-only section of the website, the user name is **ahs** and the password is **oak** <u>until February 1, 2011</u>, when the new user name will be **garden** and the new password will be **ahs2011**.

MEMBERS' FORUM

CREATING A STATE-FLOWER GARDEN

I am Chief Petty Officer Vaughn Eason with the 2d Medical Battalion based at Camp Lejeune, North Carolina. I would like to plant a garden that includes the official flower for each U.S. state. I am writing to ask if you can assist me in obtaining seeds or plants representing all the state flowers.

Vaughn C. Eason 2d Medical Battalion, 2d MLG PSC Box 20129 Camp Lejeune, NC 28542-0129 Vaughn.eason@usmc.mil

Editor's note: We provided CPO Eason with an article from the November/December 2004 issue of *The American Gardener* that lists the current state flowers. If any AHS members are able to assist with locating seeds or plants, please contact CPO Eason directly.

MORE ON THE DIGITAL EDITION

I look forward to each issue of *The American Gardener* magazine because it is packed with so many beautifully written and illustrated articles. I realize many

PLEASE NOTE:

New log-in information to access the member's-only area of the AHS website (www.ahs.org) takes effect February 1, 2011. See page 10 for details.

publications are developing an electronic option, but my back and my eyes do not allow me to sit at the computer any longer than necessary, so reading a digital magazine is totally out of the question. I do hope you will be able to continue publishing the magazine in paper form, as it brings me so much pleasure.

Susan C. Smith Southfield, Michigan

The November/December digital edition was wonderful! The articles were interesting and well written, and the pictures and illustrations were beautiful!

Babs Ramming Carrollton, Texas

I still prefer to sit in my comfy lounge chair with my American Horticultural Society magazine rather than try to read it from the computer.

Aileen Goldman Rockville, Maryland

Editor's note: Don't worry; AHS members will continue to receive the printed version of the magazine as well as a link to the digital edition. We like to think of it as offering the best of both worlds.

PRONUNCIATION RESOURCES

I own a small business called Earthwalk Twentyone in Helena, Montana, and I'm trying to find a comprehensive plant dictionary that includes how to pronounce scientific names. I have the AHS *A–Z Encyclopedia of Garden Plants*, and as a member of the AHS, I receive the magazine with a few (wonderful!) pronunciations of names in the back, but it would be so helpful and time-saving if I had a fine dictionary for references all in one place. Do you know of such a book?

Eunice Swain Helena, Montana

Editor's note: There's really not one single comprehensive source for plant pronunciations, but one fairly good publication is *The Pronouncing Dictionary of Plant Names* (American Nurseryman Publishing, Chicago, Illinois, 2006); www.amerinursery.com.

NEW GARDEN COACH

I wanted to thank you for the recent article on garden coaching (July/August 2010). I am expanding from being a garden photographer/writer/lecturer to being also a garden coach and find that each endeavor enhances and draws upon the others. The article was a great inspiration.

Karen Bussolini South Kent, Connecticut

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.





THE AMERICAN HORTICULTURAL SOCIETY TRAVEL STUDY PROGRAM 2011 TOURS



with AHS Host Jane Diamantis and Tour Escort Susie Orso of Specialtours

Explore the beautiful and storied Loire Valley in northwestern France in springtime. This exclusive tour will provide entrée to some of the finest privately-owned historic châteaus and gardens, including Château de Cheverny, Château de Chenonceau, and the inspirational ornamental potager at Villandry. For the grand finale, we will enjoy the international "Journées des Plantes" festival at the Domaine de Courson, south of Paris.



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

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

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



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

with AHS Host Kurt Bluemel and Tour Escort Harriet Landseer of Specialtours

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



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News from the AHS

January / February 2011

PROGRAMS • EVENTS • ANNOUNCEMENTS

2011 SEED EXCHANGE CATALOG ONLINE FOR AHS MEMBERS

IT'S THE time of year when seed catalogs proliferate, tempting gardeners with a kaleidoscope of plants. The American Horticultural Society also produces a seed catalog as part of its annual Seed Exchange program, exclusively for members. This catalog is special because all of its seeds come from members or are donated by seed companies, resulting in a diverse selection you can't find anywhere else. This year, the more than 200 offerings range from yellowwood trees to basil, cardoon, and unusual natives such as snapdragon beardtongue (*Keckiella antirrhinoides*).

"Our seed exchange program is a great way to try out different seed varieties," says **James Gagliardi**, River Farm's horticulturist, "and the best part is that it is a collaborative effort by AHS members from all over the country—so there are all kinds of unusual and hard-to-find seeds in the exchange."

The Seed Exchange program is free for AHS members, although donations are requested to defray the cost of shipping and handling. Donations above a certain level can earn you a copy of *Homegrown Harvest*, the AHS's latest book, which describes how to create a sustainable—and bountiful—kitchen garden.

The deadline to submit orders is March 15; AHS members who donated seeds this year get first pick of available seeds until February 1. To order seeds, consult the catalog and order form on the AHS website, *www.ahs.org*. There's also a list of seeds and order form on pages 55 and 56 of this issue. For questions, e-mail seeds@ahs.org.

2011 AHS TRAVEL STUDY PROGRAM

WHETHER YOU say garden, *jardin*, or *zahrada*, traveling to different regions or countries can give you a new appreciation for gardening. This year, the AHS offers three exclusive trips to exciting garden destinations around the world.

From May 5 to 14, experience northwestern France's historic châteaux, such as Château

de Cheverny, Château de Chenonceau, and the fabled potager at Villandry, on the "Loire Valley and the Festival at the Domaine de Courson" tour. This trip will conclude with a visit to the annual Parisian plant festival, Journées des Plantes.

"Gardens and Innovation: Chicagoland and Rockford," takes place August 17 to 21 and will introduce travelers to the Chicago's many horticultural wonders. These include private and public gardens such as Lurie Gardens in Chicago's Millennium Park, Chicago Botanic Garden, and Garfield Park Conservatory.



The English Walled Garden at Chicago Botanic Garden

From Renaissance and Baroque gardens to Neo-classical and 20th-century gardens and more, the "Castles and Gardens of Bohemia and Moravia" trip from September 25 to October 6 is a trip through time. This excursion focuses on the architectural marvels of the Czech Republic as well as the historic gardens of Bohemia and Moravia.

For more information, visit the "Travel Study" section of the AHS website or contact our travel planner, MacNair Travel, at ahs@macnairtravel.com or (703) 650-5262.

NEW PARTNERSHIP WITH GARDENING SYMPOSIUM

THE AHS has established a new horticultural partnership with the Great Gardens and Landscaping Symposium, an annual



Tulips and forget-me-nots signal spring in Vermont.

spring event held in the Northeast. This year's event, scheduled for April 1 and 2 at the four-star Equinox Resort in Manchester, Vermont, features lectures, book signings, opportunities to mingle with garden experts, and a wide array of vendor displays.

"Most of our attendees are garden hobbyists, and this year they have the opportunity to listen to six engaging lectures on a variety of topics ranging from annuals to perennials to design techniques and color designing,"

says **Kerry Mendez**, founder and organizer of the symposium.

Among this year's guest speakers is kitchen garden expert and cookbook author **Ellen Ecker Ogden**, who'll be discussing the art of designing a classic potager, and **William Cullina**, the director of horticulture and plant curator for the Coastal Maine Botanical Gardens in Boothbay, who will address how different plant characteristics influence their use in garden design.

AHS Spring Garden Market

As you're marking important dates on your calendar for 2011, be sure to include the AHS Spring Garden Market in April. This annual event has become one of the most anticipated plant sales in the Washington, D.C. area.

AHS members enjoy an exclusive opportunity to preview and purchase plants and garden-related products on AHS Members Night on Thursday, April 14. On April 15 and 16, the market opens to the public. "What's great about the plant sale," says AHS Horticulturist James Gagliardi, "is its gorgeous location—you can enjoy River Farm's gardens in bloom in the spring, while at the same time getting a head start in your garden by exploring a wide selection of native plants, vegetables, herbs, shrubs, and perennials from a variety of top regional vendors." There will also be educational activities and plant-related arts and crafts.

During the plant sale, also stop by the newly refurbished AHS Garden Shop for garden-themed items and books. For additional information, call (703) 768-5700 or visit www.ahs.org/riverfarm.

In addition to providing one-year AHS memberships to all symposium attendees, the Society will have a booth at the event. For more information about the symposium or to register, visit www.pyours.com/Symposium2011.html; for questions, call (518) 885-3471.

Gifts of Note

In addition to vital support through membership dues, the American Horticultural Society relies on grants, bequests, and other gifts to support its programs. We would like to thank the following donors for gifts received between October 1 and November 30, 2010.

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New Password for AHS Website

As an AHS member, you have exclusive access to the members-only section of the AHS website (www.ahs.org), providing you with a wealth of benefits, information, and discounts. You can browse issues of The American Gardener dating back to January/February 2001, access recordings of AHS webinars, peruse the annual Seed Exchange catalog, and more.

What's new this year is that, as of February 1, 2011, you will need to use both a new user name (garden) and password (ahs2011) to access the members-only area of the website. To log in, click on the members-only link and type both the user name and password in lowercase letters. And in case you forget the new password or user name, you can always look it up on page 5 of each magazine issue, or e-mail membership@ahs.org.

10TH ANNUAL AMERICA IN BLOOM CONTEST

WHETHER YOU'RE a green-thumbed gardener, a YouTube savant, or a grassroots organizer, no talent goes unused in American in Bloom's (AIB) annual beautification competition. Now in its 10th year, this program encourages communities across the nation to vie for awards both by population size and specified criteria, such as tidiness, heritage preservation, and floral display.

There are also category awards to compete for. For example, the AHS-sponsored Community Involvement Award recognizes the cooperation between citizens that's necessary for successful beautification efforts. For the tech-savvy, the YouTube Award encourages neighbors to showcase just how



People of all ages get involved in beautifying Fayetteville, Arkansas.

much AIB has changed their community. "America in Bloom helps towns harness untapped energy, talent, and resources," says AIB Executive Director Laura Kunkle, "creating synergy among all demographics to champion greening, enhance environmental awareness, promote economic development, and improve quality of life. It's a great way to create

meaningful, visible, and constructive beautification projects."

The deadline for registering for the 2011 AIB contest is February 28. The 10th Annual AIB Symposium and Awards Ceremony will be held October 6 to 8 in Washington, D.C.

To enter the 2011 contest or learn more about AIB, call (614) 487-1117 or visit www.americainbloom.org.

2011 EPCOT INTERNATIONAL FLOWER & GARDEN FESTIVAL

FOR MORE THAN a decade, the AHS has been a proud sponsor of the Epcot International Flower & Garden Festival at Walt Disney World in Lake Buena Vista, Florida. This year, the 18th annual floral extravaganza will be held from March 2 to May 15.



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

MAR. 2-MAY 15. Epcot International Flower & Garden Festival. Lake Buena Vista, Florida.

MAR. 23-27. President's Council Trip. Houston, Texas. Hosted by AHS Board Member Gay Estes.

APR. 1 & 2. Great Gardens and Landscaping Symposium. Manchester, Vermont.

APR. 10 & 11. Colonial Williamsburg Garden Symposium. Williamsburg, Virginia.

APR. 15 & 16. Spring Garden Market. River Farm, Alexandria, Virginia. (Note: AHS Members-only preview sale is Thursday, April 14.)

MAY 5-14. The Loire Valley and the Festival of the Domaine de Courson. AHS Travel Study Program. Loire Valley, France.

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

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

Featuring elaborate gardens, whimsical topiaries of well known Disney characters, and over a million blooming flowers, this year's festival also showcases Minnie's Magnificent Butterfly Garden, with hundreds of different kinds of butterflies. Along with demonstrations of advanced gardening techniques, on the weekend, gardeners can learn tips from horticultural experts at one of the festival's many Garden Town Programs.

For more information, visit www.disneyworld.com/flower or call (407) 934-7639.

COLONIAL WILLIAMSBURG GARDEN SYMPOSIUM

CO-SPONSORED BY the AHS, this year's Colonial Williamsburg Garden Symposium is for every gardener who doesn't want to sacrifice beauty to create a low-maintenance, environmentally friendly garden. From April 10 to 11, guests can learn first-hand from top garden writers and horticulturists as they explore this year's theme—"Timeless Ideas for Today's Gardens" —through a series of talks in the historic setting of Colonial Williamsburg in Virginia.

"Our focus this year," says Laura Viancour, Colonial Williamsburg's garden programs coordinator, "is on practical gardening methods, and how gardeners can work with—rather than against—nature." She adds that she's especially excited about this year's speakers and the extra opportunities registrants have, such as going behind the scenes with Colonial Williamsburg staff. Speakers include the award-winning author **Suzy Bales**, who'll talk about down-to-earth gardening, and **Doug Tallamy**, professor and chair of the department of entomology and wildlife ecology at the University of Delaware, who'll address ways to incorporate native plants into your garden. AHS members are eli-



The Reid Garden at Colonial Williamsburg

gible for a discount on admission to the symposium. To learn more, call (800) 603-0948 or visit www.history.org/conted.

GARDEN PHOTOGRAPHY COMPETITION

IN THE DEAD of winter, when all we have as a reminder of a once-blooming garden are photos, there's no better time to pick out your favorite garden images and submit them to the Gardeners of America/Men's Garden Club of America's (TGOA/MGCA) annual garden photography contest. Thanks to a partnership with the AHS, TGOA/MGCA accepts submissions from AHS members in categories such as wildflowers, roses, landscapes, and more.

"Besides giving people the incentive to go out into their gardens and view the flowers, our photography contest is also the highlight of our annual convention banquet because it is here that the many excellent images are set to music and projected for the audience, making for an entertaining evening," says **Sheryl Bacon**, TGOA/MGCA administrative assistant. The summer National Convention is also where the photography contest winners are announced. Submit your favorite photograph by the February 16 deadline, and for AHS members, your \$15 contest entrance fee also grants you a one-year membership in TGOA/MGCA. To register or learn more, call (515) 278-0295, or visit www.tgoa-mgca.org. For a copy of the contest manual, contact **Sherra Schuck** at sschuck4@kc.rr.com.

News written by Editorial Intern Patrick Morgan.



New Plants for 2011

PLANTS ARE sizing down, growing straight up, and taking on brilliant new hues in 2011, while home gardeners are snapping up edibles and opting for containers overflowing with plants of every type. It may take plant breeders a bit of time to catch up with gardeners' inclinations, but new plant introductions for 2011 demonstrate that growers, despite a difficult economy, are getting the message.

One of the hottest new trends taking hold all over the country is vertical gar-



dening, according to Diane Blazek, executive director of the National Gardening Bureau. Because people don't have the space, she says, they want plants that will grow five or six feet up rather than wide. Landscape designers and public gardens all over the country are installing vertical walls bursting with texture and color; the largest one in the country, at 3,590 square feet, recently opened at Longwood Gardens in Pennsylvania.

The local food movement and the growth of farmers markets in many communities continue to spur extraordinary interest in edible plants of all kinds. Nicholas Staddon, the director of new plant introductions at Monrovia Growers, says the continued popularity of organic gardening and food plants signals a cul-

Edible, compact, upright, and colorful are the themes of this year's new plant introductions.

BY JANE BERGER

tural shift rather than just a trend. "People want to have edibles as part of their garden," he says, "so what we're starting to see is edibles being used as ornamentals."

Dan Heims, president of Terra Nova Nurseries in Oregon, says that during tough economic times, "people are looking for value." Thus new introductions of workhorse perennials such as coral bells (*Heuchera* spp.), daylilies (*Hemerocallis* spp.), and coneflowers (*Echinacea* spp.) continue to be popular, he says, because they have long seasons of interest, are easy to grow, and, in the case of coneflowers, make excellent cut flowers.

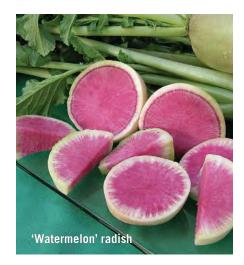
Ryan McGrath, marketing director at Spring Meadow Nursery, which develops shrubs for the Proven Winners marketing consortium, says breeders continue to focus on shrubs that are smaller, easy to care for, and have flowers and interesting foliage through as many seasons as possible. "We're trying to find miniaturized versions of shrubs we know are successful and consumers demand," he says.

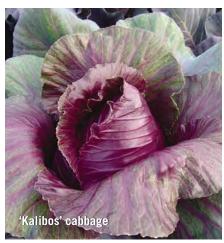
Here are some of the plants that represent the new directions in gardening in the coming year.

VEGETABLES AND FRUITS

If you like vibrant colors, try adding some vegetables to your ornamental garden this year. Blazek says anything that gives gardeners "bragging rights," like a purple carrot, is popular because it's something "you can't buy in a supermarket." So you might want to try magenta-fleshed 'Watermelon' heirloom radishes from Renee's Garden or deep purple 'Amethyst' dwarf stringless beans from Thompson & Morgan.







From Johnny's Selected Seeds comes 'Defiant PhR', a new tomato bred to be resistant to the fungal diseases that have ravaged tomato crops the last couple of years. This mid-size tomato is highly resistant to late blight and somewhat resistant to early blight. The six- to eight-ounce, deep red, globe-shaped fruits are medium-firm with good texture and flavor.

Tomato lovers may also want to try 'Orange Wellington' from Ball Horticultural and W. Atlee Burpee. This colorful, 12-ounce, mid-season indeterminate variety is nearly seedless.

A compact fennel, 'Orion', from Cook's Garden, is a must for small households. Cook's is also offering a unique red-colored 'Kalibos' cabbage that can be planted in spring for a late-summer and fall harvest.

Blueberries are among the stars of the new edible revival, hence one of Monrovia's top new plants is Bountiful Blue® blueberry, (*Vaccinium corymbosum* 'FLX-2', Zones 5–9, 9–1), which has blue-tinged foliage and bears loads of large, sweet

berries. Monrovia's Nicholas Staddon says this three- to four-foot-tall plant makes a perfect hedge because the evergreen foliage takes on a purple-pink color in autumn.

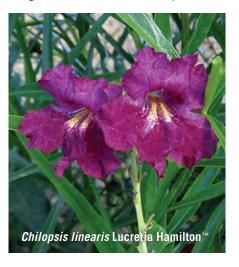
If you are looking for neighborhood bragging rights, be the first on your block to grow the 'Pink Lemonade' blueberry (Zones 4–8, 8–1), which has true pink berries that have a sweeter flavor than the standard fruits. Developed through the USDA's breeding program, this hybrid blueberry is being released through wholesale Briggs Nursery in Washington. It grows four to five feet tall and about as wide.

Another option is Blue Suede®, a new hybrid blueberry for Zones 6 to 9, 9 to 1 from Gardener's Confidence Collection. Though it blooms later than other varieties, fruits ripen sooner. It grows three to five feet tall and wide and has fiery fall color.

TREES AND SHRUBS

If you're in the market for a shade tree, the Emerald City™ tulip tree (Liriodendron tulipifera 'JFS-Oz', Zones 5–9, 9–2) from J. Frank Schmidt Nursery in Boring, Oregon, is one to consider. An upright grower, it tops out at 50 to 60 feet with a 25-foot spread. Its foliage is darker green and glossier than the typical native trees found in eastern forests, turning golden yellow in fall. Although introduced a few years ago, it is only now becoming readily available at the retail level.

A petite tree with exciting potential is Rising Sun™ redbud (Cercis canadensis 'JN2', Zones 5–9, 9–2), released through Garden Debut. The heart-shaped foliage ranges in color from lemon-yellow to



apricot or orange, holding its color into autumn. Growing to 12 feet tall and slightly broader, it bears the typical fuchsia-colored redbud flowers on bare branches in early spring.

For western gardeners, Lucretia Hamilton™ desert willow (Chilopsis linearis, Zones 6–10, 10–6) is a hummingbird magnet selected for its naturally compact habit. Discovered by Ron Gass of Mountain States Nursery and offered through High Country Gardens in Santa Fe, New Mexico, it provides a long-blooming summer display of burgundy-red flowers. It grows to the lower extent of its size—12 to 18 feet high and wide—in USDA Zone 6.

Proven Winners' Little Lime™ panicled hydrangea (Hydrangea paniculata 'Jane', Zones 3–8, 8–1) is a dwarf version of the brand's popular 'Limelight' selection. It grows only three to five feet high and wide, with the same upright, long-

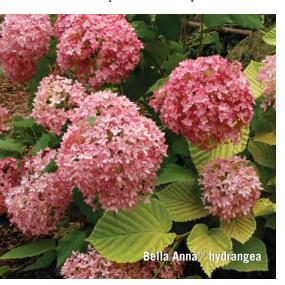






flowering lime-green blooms that eventually fade to pink. Suitable for a container, it could light up a small deck or patio.

If you have room for another hydrangea, Bailey Nurseries is introducing Bella Anna™ (Hydrangea arborescens 'PIIHA-1', Zones 4–9, 9–1), a pink-flowered mophead that is part of the re-



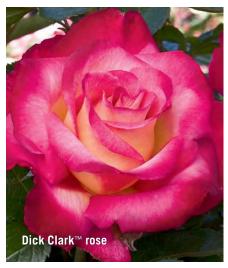
blooming Endless Summer® line. Growing three to five feet tall and wide, it bears magenta-pink clusters of flowers from midsummer into fall.

In the conifer department, a few selections from Iseli Nursery in Oregon are finally reaching garden centers across the country in substantial numbers. Among these is 'Niagara Falls', a ground-hugging, cascading sport of the familiar weeping white pine (*Pinus strobus*, Zones 3–8, 8–1).

I fell in love with this selection when I visited Iseli a couple of years ago. Discovered in 1998 by Mike and Ken Yeager of Hickory Hollow Nursery in New York, its name aptly describes its flowing habit. Another Iseli winner is 'Gold Strike', a dwarf juniper (*Juniperus horizontalis*, Zones 3–9, 9–1) with a spreading habit and brilliant chartreuse needles spring through fall that take on coral tones later in the year.

ROSES

Roses have just been getting better and better in recent years, and the new ones for 2011 are no exception. Tom Carruth, director of research and marketing for Weeks Roses, says breeders are focusing on disease resistance, fragrance, and "floriferous plants." For 2011, Weeks is introducing another of its steady stream

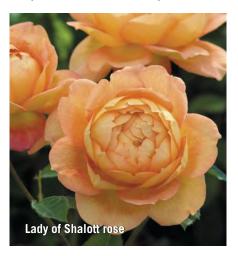


of All-America Rose Selections (AARS) winners, a grandiflora type called Dick Clark™ (Rosa 'WEKfunk', Zones 6–9, 9–1). Its flowers open white with a pink edge, then begin to blush when the sun hits the petals, finishing up with a deep burgundy color.

Proven Winners has picked up a Weeks rose called Home Run® (Rosa 'WEKcisbako', Zones 4–9, 9–1) for 2011. This shrub rose has single scarlet blooms, excellent black spot and mildew resistance, and "a capacity to bloom and bloom," according to Carruth. He warns against deadheading, however, lest you snip off the forthcoming flowers.

Jackson & Perkins introduced this year's second AARS winner, Walking on Sunshine™ (Rosa 'Jacmcady', Zones 6–9, 9–1), a vigorous and disease-tolerant floribunda rose with ruffled, banana-yellow flowers that exude a mild anise scent. It grows to about four feet tall and wide.

David Austin's five new roses include Lady of Shalott (Rosa 'Ausnyson', Zones



5–9, 9–5), which the company considers one of the best roses it has ever produced. Early buds are orange-red, opening to chalice-shaped apricot blooms. Each petal is salmon-pink on the upper side and golden yellow underneath. Flowers have a tea fragrance with hints of clove and spiced apple and are borne atop a bushy shrub with slightly arching stems.

VINES AND CLIMBERS

For those looking to enhance the vertical dimension, Monrovia is introducing two new sausage vines (*Holboellia* spp.) as part of the Dan Hinkley Collection of noteworthy plants discovered by the renowned



plant explorer. Holboellia coriacea 'Cathedral Gem' (Zones 6-10, 10-6) is an easyto-grow, evergreen vine with glossy green leaves and clusters of highly perfumed flowers in late winter and early spring. It was found growing on the wall of Winchester Cathedral in Britain. Holboellia latifolia 'Ritak' (Zones 6-10, 10-6) flowers from early to late spring, with purplelavender, cinnamon-scented, fuchsialike blooms followed by fleshy lavender-pink fruits. Hinkley located it in a remote corner of northeastern Nepal.



From the American Beauties collection (a grower consortium that includes North Creek Nurseries in Landenberg, Pennsylvania), comes a new cultivar of Kentucky wisteria (Wisteria macrostachya 'Blue Moon', 3-9, 9-3). Much less aggressive than the Asian wisterias, this American native selection grows to 25 feet high with fragrant, lavender-blue flower clusters.

Introduced by Novalis, Madame Rosy® trumpet vine (Campsis 'HOMR', Zones 5-9, 9-6) is a hybrid between the native

Campsis radicans and Asian C. grandiflora. Growing 15 to 25 feet tall, it bears clusters of salmon-rose, trumpet-shaped flowers from May to September. Vines don't form seedpods, so flowering is continuous.

PERENNIALS AND GRASSES

Perennials are riding out the economic downturn with strong sales of plants that provide value in terms of vigor, long bloom, vibrant colors, knockout foliage, and texture.

Dan Heims of Terra Nova Nurseries, known for his penchant for flamboyant colors, doesn't disappoint with Heuchera 'Midnight Bayou' (Zones 4-9, 9-1), a stunning heat-tolerant plant with iridescent purple leaves over a black background. Gardeners would be at a loose end without at least one new coneflower introduction, so Heims obliges with Echinacea 'Flame Thrower' (Zones 4-9, 9-1), distinguished by bright orange flowers that make a real statement when massed.

Over the last couple of years, Blooms of Bressingham has been releasing penstemon selections developed through the University of Nebraska's highly regarded breeding program. A promising new one is Penstemon 'Sweet Joanne' (Zones 5-8, 8-5), which grows to two feet tall with

Wholesale Nurseries/Marketing

Visit these companies' websites to locate retail sources for their plants.

American Beauties, www.abnativeplants.com.

Anthony Tesselaar Plants, www.tesselaar.com.

Bailey Nurseries, www.bailynurseries.com.

Ball Horticultural Co., www.ballhort.com.

Blooms of Bressingham, www.bloomsofbressingham.com.

Garden Debut, www.gardendebut.com.

Gardener's Confidence Collection.

www.gardenersconfidence.com.

Iseli Nursery, www.iseli-nursery.com.

Jackson & Perkins, www.jacksonandperkins.com.

J. Frank Schmidt, www.jfschmidt.com.

Monrovia. www.monrovia.com.

Mountain States Wholesale Nursery, www.mswn.com.

Novalis. www.novalis.com.

PlantHaven, www.planthaven.com.

Proven Winners, www.provenwinners.com.

Southern Living Plant Collection,

www.southernlivingplants.com.

Spring Meadows Nursery, www.springmeadowsnursery.com. Terra Nova Nurseries, www.terranovanurseries.com. Weeks Roses, www.weeksroses.com.

Retail Sources

The Cook's Garden, Warminster, PA. (800) 457-9703. www.cooksgarden.com.

David Austin Roses, Tyler, TX. (800) 328-8893.

www.davidaustinroses.com.

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

www.highcountrygardens.com.

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

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

Seeds of Change, www.seedsofchange.com.

Thompson & Morgan, Jackson, NJ. (800) 274-7333. www.tmseeds.com.

W. Atlee Burpee & Co., Warminster, PA. (800) 333-5808. www.burpee.com.



pale lavender-pink, trumpet-shaped flowers in midsummer.

Native plant fans will also treasure a new baneberry (*Actaea pachypoda* 'Misty Blue', Zones 3–8, 8–1) discovered at the Mt. Cuba Center in Delaware. It has white spring flowers that are followed by the doll's-eye fruit set off by red stalks in fall. The fruits are poisonous if eaten, so this is not a good choice if young children frequent your garden. It grows two to three feet tall and wide in part shade.

Monrovia is releasing two new Itoh intersectional peonies—Misaka™ Beautiful Blossom ('Smith Opus 1') and Takara™ Treasure ('Smith Opus 2'), both Zones 3–8, 8–1. These hybrids resulted from crosses between herbaceous and tree peonies by the late Japanese hybridizer Toichi Itoh. They have huge, almost eight-inch-diameter blooms that make magnificent cut flowers. They also offer an intense sweet scent, disease resistance, and a five- to six-week blooming cycle.

High Country Gardens is introducing 'Blonde Ambition', a new selection of the native blue grama grass (*Bouteloua gracilis*, Zones 4–9, 9–4) that bears chartreuse flowers on two- to three-foot stems.

Another grasslike beauty is *Carex oshimensis* Everest ('Fiwhite', Zones 6–9, 9–1), a Japanese sedge selection that came

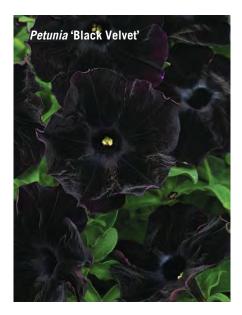


out in limited release in 2010 and now is available through Anthony Tesselaar Plants. Fountainlike clumps of the white-and-green striped foliage make elegant groundcovers or container specimens in sun or part shade.

ANNUALS AND TENDER PLANTS

You have to wonder what's going on when two companies claim to have the "world's only black petunia." If you'd like to decide for yourself, try both 'Black Velvet' petunia from Ball Horticultural and W. Atlee Burpee's 'Black Cat', which is reported to have great disease resistance and vigor.

Ball Horticultural is releasing two new coleus selections with "wow" potential— Versa™ Crimson Gold and Redhead,



both suited to sun or shade. Redhead—a bright red color with a velvety texture—grows 18 to 24 inches tall; Crimson Gold which has deep red leaves lined in golden green, is slightly taller. Both are spectacular in containers or borders.

From Proven Winners, there are two new Superbells® *Calibrachoa:* the vibrant dark purple 'Blackberry Punch' and 'Coralberry Punch', which has coralcolored blooms with burgundy throats. I also liked the 'Gold Dust' *Mecardonia*, a great choice for filling in those bare garden spaces with cheerful yellow flowers that bloom from May to October.

A dwarf with a tight, rounded habit and a spread of only 12 inches, *Abutilon* 'Lucky Lantern Tangerine' from PlantHaven is



suitable for summer containers. And from Anthony Tesselaar Plants, there are two new offerings in the popular Bonfire® begonia series with dark chocolate leaves—one with red-orange flowers (Choc Red) and the other with pink blooms (Choc Pink). Both grow to 20 inches tall, making perfect container or hanging basket specimens.

Only time will tell which of these plants become garden classics, but there's certainly more than enough choice for you to find something interesting to try wherever you garden.

Jane Berger is a landscape designer and writer based in Woods Hole, Massachusetts. She blogs at gardendesignonline.com.

ADDITIONAL SELECTIONS FOR 2011

Vegetables

'Apollo' broccoli

This cross between a sprouting or calabrese-type broccoli and kale produces tender stems and ruffled leaves; the floral side shoots can be harvested continuously. (W. Atlee Burpee & Co.)



'Pixie' cabbage

Ideal for small households, this diminutive cabbage is softball-sized at harvest. (Renee's Garden)

'Salt and Pepper' cucumber

A disease-resistant, organically grown, pickling cucumber (three to five inches long) with white skin and black spines. (Johnny's Selected Seeds)

Annuals and Tender Perennials

Canna Tropicanna® Black

(Anthony Tesselaar Plants)

('LonOl' canna)
Striking purple/black foliage and bright orange flowers on a four- to six-foot plant. Zones 7–11, 12–1.

Petunia Phantom

('Balpephan' petunia)
A vigorous grower with flowers that have a cream-colored, star-shape pattern surrounded by black.
(Ball Horticultural)



Tropaeolum majus 'Buttercream'

(nasturtium)

Two-tone pastel-yellow flowers grace this mounding heirloom nasturtium. (Renee's Garden)

Perennials and Grasses

Achillea 'Pineapple Mango'

The flowerheads on this yarrow mature from rich pink to yellow-salmon to pale primrose yellow. Zones 4–8, 8–1. (Blooms of Bressingham)

Amsonia ciliata 'Spring Sky'

(threadleaf bluestar)

A compact bluestar (to two feet) with sky-blue spring flowers and bright yellow fall foliage. Zones 4–9, 9–4. (American Beauties)



Hemerocallis Kokomo Sunset™

('SPd 06-02' daylily)

One of five new selections in the Enjoy 24/7 series, this reblooming daylily has ruffled yellow flowers with a red-blushed center. Zones 5–9, 9–5. (Garden Debut)

Iberis Absolutely Amethyst™

('IB2401' candytuft)
This hardy groundcover has lavender flowers. Zones 4–9, 9–4.
(Proven Winners)

Sedum 'Elsie's Gold'

Variegated foliage (silver, green, and gold) contrast with shell-pink flowers that age to deep magenta by fall.

Zones 3–9, 9–3. (PlantHaven)

Trees, Shrubs, and Climbers

Chaenomeles speciosa Double Take™

('Orange Storm' flowering quince) Growing three to five feet tall and wide, this shrub has extra-large, brilliant orange-red double flowers in early spring. Zones 5–9, 9–5. (Proven Winners)

Juniperus scopulorum First Editions® Sky High ('Bailigh' juniper)

A small, columnar juniper with dense silver blue foliage. Grows 12 feet high and three to five feet wide. Zones 3–7, 8–3. (Bailey Nurseries)

Lagerstroemia Diamond Dazzle

('PIILAG-I' crape myrtle)

This dwarf crape myrtle grows three to five feet tall and wide and bears white flowers from late summer to fall. Zones 6–9, 9–6. (Gardener's Confidence Collection)

Rosa Purple Splash™

('WEKspitrib' rose)

A relatively thorn-free climber to 12 feet. Apple-scented, wine-purple flowers are streaked and stippled in white. Zones 5–9, 9–5. (Weeks Roses)

growing Carnivorous Plants in containers By carole of

BY CAROLE OTTESEN



Making a container bog garden with carnivorous plants is an easy and entertaining project.

F YOU THINK of bogs as slimy, snakey, and squishy underfoot and the words "bog garden" strike you as an oxymoron, read on! You may become one of a growing number of gardeners who will discard images of pre-historic human sacrifice and man-eating Little-Shop-of-Horrors plants to discover the pleasures of bog gardening. If so, you'll learn that bogs are unique ecosystems that are easily



Left: Hybrid pitcher plants bloom at the Atlanta Botanical Garden, Above: A Venus flytrap exhibits the remains of a digested fly.

maintained, happily containerized, and, best of all, home to a range of fascinatingly beautiful, carnivorous plants.

Loosely interpreted, the word "bog" refers to any ground that is water-logged. But the kind of bog that supports carnivorous plants is both water logged and nutrient poor. Usually highly acidic, it is composed of accumulated organic material-most often, sphagnum peat.

HOW TO CREATE YOUR OWN BOG GARDEN PLANTER

Containers make it easy to satisfy the needs of carnivorous plants, which are: an acidic, low-nutrient growing medium, mineral-free water, consistent moisture, and full sun. The growing medium is a blend of fine sphagnum peat and children's playground sand that has been washed. To supply the plants with mineral-free water, you must collect rainwater or use bottled drinking water labeled sodium-free; simply boiling tap water will not remove minerals.

One of the attractions of growing carnivorous plants is their low maintenance. For several years, I've grown them in containers left outside year round in an exposed area of my USDA Zone 7, AHS Zone 7 garden in Maryland. I've lost some sundews and Venus flytraps to smothering by sphagnum moss but not to winter cold.

—С.О.



- Assorted carnivorous plants
- Container with a drainage hole and a deep dish or tray that holds water in which the container can be set to keep the growing medium wet
- Sphagnum peat
- Sand (well washed)
- Perlite or pine needles (optional)
- Bucket for mixing growing medium
- Water (mineral free)
- Sheets of live sphagnum moss



1. PREPARING. Combine equal amounts of sphagnum peat and sand in a bucket with water until you get a mudlike mixture. You can also mix in perlite or pine needles for texture. Then fill the container with the mixture—firming it down to remove air pockets—to within two inches of its rim. Set the container in a water-filled tray.



3. FINISHING. Carefully arrange wet pieces of live sheet sphagnum moss on top of the growing medium around each plant. This makes the container more attractive and also helps prevent the medium from drying.



2. PLANTING. Arrange the potted plants on the surface of the filled container until you get a design you like. A tip: Set taller plants either in the middle or off to one side. Then make a hole in the growing medium below each plant and insert the plants, tamping down gently around the rootballs.



4. MAINTAINING. Water regularly to keep medium wet. Remove the occasional weed and overgrown sphagnum moss as needed. Plants go dormant in the winter. In spring, cut off dead parts with pruning shears before growth resumes.

The kinds of plants that live in this nutrient-poor habitat descended from primitive pre-historic ancestors and have had eons to develop cunning mechanisms for deriving nourishment by means other than from the soil. In other words, they trap their own food.

"Most folks assume that such weird vegetation certainly must come from some far-off, exotic, and tropical country, necessitating a hot and steamy greenhouse in which to grow them," writes nurseryman Peter D'Amato of California Carnivores in The Savage Garden, which received an AHS Book Award in 1999. "In truth...most carnivorous plants grow in temperate climates...and the North American continent has the widest variety of ornamental carnivorous plant genera in the world."

Being able to watch these ornamental natives dine has great entertainment value as well as a practical aspect: Plants that feed themselves don't need fertilizer. In fact, fertilizer, good soil, and mineral-enriched water are all too rich a diet for most carnivorous plants. What they need is pure water, a sterile, acidic growing medium, and a place in the sun. These simple needs render them ideally suited for life in

a container where they can be combined with other plants or grown alone. Either way, their culture is so easy, a child can take care of them.

Actually, young children, being the primitive beings they are, love to tend them. Their ghoulish curiosity has not been dulled by years of concentrated civilization. They will watch with fascination as pitcher plants lure unsuspecting insects to be imprisoned and digested. Forget grandma's gallstones, the fingernail that fell off when the car door slammed on it, or the desiccated anole you finally found under the dishwasher. Containerized bog gardens with their ravishing, ravenous plants are the ultimate show-and-tell.

PLANTS FOR THE BOG GARDEN

Finding plants well suited to a bog garden environment is actually quite easy, especially since many carnivorous plants are native to North America. Just be sure you purchase your plants from a reputable source (see "Sources," opposite page). Many bog plants are illegally harvested from the wild and certain species are endangered. Buying propagated plants is not only easy on the environment and likelier to yield healthy plants, it will enrich your bog with extraordinarily ornamental hybrids and selections.



Sitting in a deep, water-filled tray, this terracotta planter of blooming red pitcher plants makes an attractive and unusual centerpiece for a patio table.

Over the last decade or so, a number of outstanding pitcher plants (Sarracenia spp.) with gorgeous leaves and spectacular flowers have been selected and propagated by tissue culture. One of these, released by the Atlanta Botanical Garden (ABG), is Sarracenia leucophylla 'Tarnok,' a white-topped pitcher with maroon-red

veins. It bears cranberry-red flowers that stay showy from spring until fall.

Pitcher plants are eating machines. Every aspect of their anatomy is adapted to lure, trap, and digest food. Nectar glands and bright red veins attract prey to the plant's lip—a structure that doubles as a handy landing pad. From here, the in-





Left: A closeup view of a sundew's tentaclelike leaves shows the exuded drops of a sticky substance that serve to ensnare insects. Above: The aptly-named cobra orchid is native to California and Oregon.

Sources

California Carnivores, Sebastopol, CA. (707) 824-0433. www.californiacarnivores.com. Carnivorous Plant Nursery, Derwood, MD. (301) 519-7505. www.carnivorousplantnursery.com. Sarracenia Northwest, Eagle Creek, OR. (503) 630-7522. http://cobraplant.com.

Resources

Carnivorous Plants of the United States and Canada by Donald E. Schnell, Timber Press, Portland, Oregon, 2002.

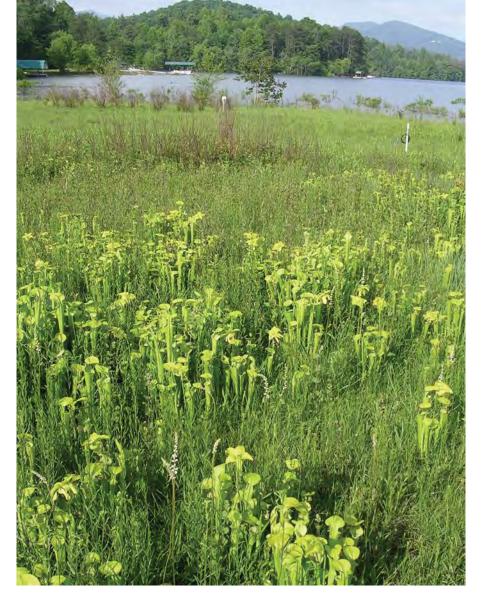
Growing Carnivorous Plants by Barry Rice. Timber Press, Portland, OR, 2006.

International Carnivorous Plant Society, www.carnivorousplants.org. The Savage Garden by Peter D'Amato, Ten Speed Press, Berkeley, California, 1998.

sects—often flesh flies (Sarcophagidae) and ant species—are lured down inside the pitcher—almost always a one-way trip. Downward-pointing hairs accelerate progress down, but impede any escape upward. Farther along the tubular leaf is the slippery slope. On its sticky edge, the unfortunate insects struggle, then plummet to their deaths in the drowning pool at the base of the pitcher.

Venus flytrap (*Dionaea muscipula*) is well-named. Its eyelid-shaped leaves form two halves of an efficient trap. When lured by nectar, an insect lands on one of the leaves and the eye shuts. Large hairs, like eyelashes, act as bars to keep it imprisoned while enzymes in the leaf glands digest it. While Venus flytrap is endangered in the wild, plants have been produced by tissue culture. A beautiful red cultivar, 'Akai Ryu' (sometimes listed as 'Red Dragon') was introduced by ABG in 1997.

Sundews (*Drosera* spp.) have long tentaclelike leaves that are covered with a sticky substance that glitters like dew in the sunlight. It also acts as a powerful glue, so when an insect lands on the leaves it is stuck fast. As the insect struggles to escape, hairs on the tentacles close



Endangered green pitcher plant (Sarracenia oreophila) grows wild in a Georgia wetland.

around it and digestive enzymes begin their grisly work.

Cobra orchid (*Darlingtonia californica*) resembles a cobra head with a hood and "fangs"—a fishtail-shaped appendage below the hood. Native to California and coastal Oregon, cobra orchids are denizens of running water in areas underlain by serpentine rock—habitat requirements that are difficult to duplicate in a container garden. Insect prey are attracted by a sweet nectar fragrance and may fly or crawl to the rolled edge of the plant's mouth from which they topple into the depth of the pitcher's hollow leaf. Downward-pointing hairs impede escape.

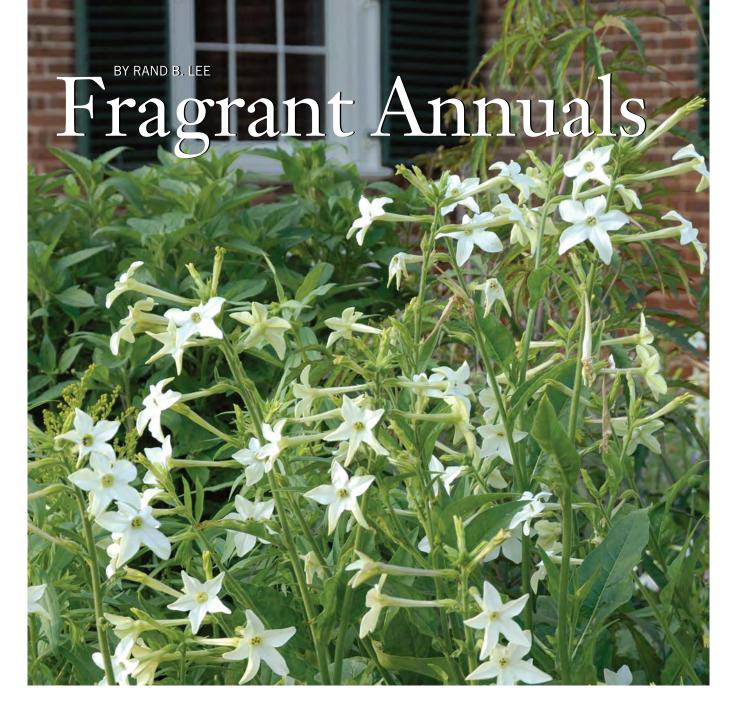
RARE AND ENDANGERED PLANTS

Carnivorous species turn up with discouraging regularity on rare and endangered lists. Over 30 species and sub-species of *Sarracenia* appear on many state lists of

rare, protected, or at-risk plants. And three pitcher plant species as well as the Venus flytrap have been listed as "federally endangered."

Ironically, while digging up a single Venus flytrap in North Carolina could land you in jail with fines up to \$50,000, razing an entire bog to make way for a housing development doesn't seem to raise an eyebrow. "In the United States, over 95 percent of the original carnivorous plant habitats along the southeastern coastal plain are gone," says D'Amato, adding, "the devastation and disappearance of carnivorous plant habitats throughout the world is currently beyond alarming."

Carole Ottesen is a contributing writer for The American Gardener. This is an adapted version of an article she wrote for the magazine in July/August 2003.



ROWING UP in Connecticut, the first plants I came to know and love were four o'clocks (Mirabilis jalapa). My mother showed me how to plant the big, black, knobbed seeds. The plants grew quickly in our rich loamy soil, and when they really did open their cerise or magenta trumpets at around four o'clock, I found to my delight that the flowers gave forth a light, lemony perfume that grew stronger as the evening advanced.

My second love was the big-flowered pansies (Viola ×wittrockiana) we bought by the flat every spring. I would kiss their

Integrating sweetly-scented annuals in mixed containers or beds is an easy way to increase sensory appeal in your garden.

faces, breathing in a rich perfume that later I found again in wallflowers.

I was also taken with the heirloom 'Clarke's Heavenly Blue' morning glories (Ipomoea tricolor) that Sarah Jane Hodge

next door grew up her swing set every summer. When I stuck my face into a blossom they smelled like perfumed lettuce. Fragrant annuals were my introduction to flower gardening, and they still delight me, nearly 55 years later.

ANNUALS VERSUS TENDER PERENNIALS

Of the plants mentioned above, only morning glories are true annuals. Those pansies are actually short-lived perennials that overwintered regularly in our USDA Zone 6 garden. And four o'clocks are tender tuberous perennials; their roots can be dug in fall for replanting the next spring.

Statuesque jasmine tobacco (Nicotiana alata) is ideal for a cottage garden, drawing evening pollinators with its fragrant flowers.

True annuals are plants that complete their entire life cycle within one growing season. Of the true annuals bearing scented blossoms, many bloom at night or bear rather pale-hued flowers adapted to shade, in their wild forms at least. This minimal color occurs because, from an evolutionary viewpoint, scent in flowers serves to attract pollinators, primarily butterflies, moths, and flies, which are drawn more to scent than to color. Scent is rare in bright blue, blazing red, and rich gold flowers because these are adapted to attract bees or hummingbirds, which are drawn to color more than scent. Since true annuals do not survive winter, the USDA Hardiness Zone for them is listed as "o".

TRUE ANNUALS

Perhaps the best known scented true annual is the **sweet pea** (Lathyrus odoratus, USDA Hardiness Zone o, AHS Heat Zones 8–1). A Sicilian wildflower, it is one of the few members of the pea family (Fabaceae) to bear a perfume. It's a favorite of Renee Shepherd of Renee's Garden, located in Felton, California. "They come in gorgeous colors, and their fragrance is exquisite and unduplicatable...somewhere between honeysuckle and orange blossom," says Shepherd. She explains that growing them is easy, provided they are planted at the right time; they are daylength sensitive, requiring longer days to trigger growth and bloom. "Out here,



Sweet pea selection 'Lady Grisel Hamilton' has fragrant lavender-blue flowers.

where the winters are relatively mild, we plant sweet peas in fall with the bulbs," she says. "In cold climates, they're best planted in very early spring." (For additional suggestions from regional experts, see "Regional Recommendations," page 27.)

Particularly well-scented cultivars, all of which can get up to four feet (and thus need support), include 'Black Knight',

with its rich maroon blossoms; 'Lady Grisel Hamilton', which bears three to four lavender blossoms per long cutting stem; and 'Mrs. Collier', which bears numerous white to cream blossoms. 'Incense Mix' is a very fragrant mixture of cream, pink, white, and bicolor varieties. 'April in Paris' is one of Shepherd's favorites. "The scent is much fuller and richer than that of most modern varieties," she says. For borders or containers, Shepherd recommends shorter varieties such as the superdwarf 'Cupid' or the semi-dwarf 'Jack and Jill'.

Mignonette (Reseda odorata, Zones o, 6−1) is nothing much to look at: a green leafy Mediterranean weed with more or less upright stems to 20 inches high, bearing thin, somewhat fleshy oval leaves and spikes of nondescript, pale creamy-green flowers (unkind writers often describe them as "dull whitish") with orange to rust-colored anthers. But the fragrance that arises from the blossoms, once sniffed, is never forgotten: intense, sweet, delicious, exciting, and absolutely French.

Mignonette's common name, translated directly from the French, means "little darling," and in 19th-century Paris it was often grown in windowboxes. 'Red Monarch' has deep red anthers, and 'Grandiflora' has larger-than-usual flower clusters with yellowish anthers. But the best strains to look for are the ones University of Georgia horticulturist Allan Armitage recommends: 'Fragrant Beauty' and 'True Machet'. You will never find these plants in garden centers; you must grow them yourself, from seed.

Annual **thorn apples** (Datura spp.) belong to the deadly nightshade family (Solanaceae), and all parts of the plants, especially the seeds, are highly poisonous. But their tubular to funnel-shaped, nightblooming, upright to dangling flowers are not only beautiful but also among the most fragrant in nature.

Downy thorn apple, also called angel's trumpet (Datura innoxia, Zones 0, 12-4), is a fuzzy-leaved annual native to Central America. A big sprawler, it can grow to three feet tall and four to six feet wide, with large, broadly oval, sometimes wavy-edged green leaves. Its eight-inch-long tubular, white to lavender, green-veined flowers have flared, often wavy, five-lobed lips. The distinctive fruits are egg-shaped, with long slender spines. The flowers are most fra-



Intense fragrance more than compensates for mignonette's somewhat bland-looking flowers.



A cultivar of Datura metel, 'Belle Blanche' has fragrant white flowers suffused with pink.

grant at night. It's a favorite of Ed Rasmussen, owner of the Fragrant Path seed company in Nebraska. It attracts evening hawk moths, or hummingbird moths, which, says Rasmussen, "may be the only creatures in our region that have a proboscis long enough to reach the flower's nectar because the trumpet is so long."

Datura metel (Zones 0, 12-4) is a sixfooter, native to southern China. It sports blue-green, oval, wavy-edged to coarsely serrated leaves. The fragrant eight-inchwide blossoms, with lips composed of up to 10 lobes, come in dark purple, shining white, or pale yellow, and include double and triple forms. The whites are the most heavily night-perfumed. The spherical fruits are studded with conical thorns.

Thorn apples' shiny black angular seeds sprout readily in warm well-drained soil, and the plants are ideal for tubs and regular to dry garden soil in full sun.

Moroccan toadflax (Linaria maroccana, Zones 0, 9-1) is an annual snapdragon relative that is native, unsurprisingly, to Morocco. In the wild, the upright branching plants can get 16 inches tall. Their narrow leaves—arranged in whorls lower down on their stems changing to alternating and widely spaced higher up-get about one-and-a-half inches long at most. What is remarkable about these wildflowers are their spurred blossoms: held at the tips of their stems. They bloom in a brilliant violet-purple with an orange to yellow "palate" (the mouthy part of the flower), patched with a lighter color for good measure.

The many hybrid varieties offer a wide range of sizes and exciting color combinations. And one strain, 'Enchantment', is fragrant enough to knock your socks off at 20 paces. Growing 14 to 16 inches tall, its flowers are a dark reddish-magenta with a gold palate, and they exude a complex, winelike, deliriously pungent perfume far out of proportion to their size.

The plants grow best with full sun, sandy or otherwise well-drained soils, and cool weather. They should be sown, or planted as young starts, before the last frost in spring. Try scattering the seeds in your spring bulb bed, or planting them in back of your pansies and Johnny-jump-ups.

FRAGRANT PLANTS GROWN AS ANNUALS

Many plants sold as annuals in garden centers are in fact tender perennials or biennials treated to a season of growth before they appear on the shelves. One example of this is **stock** (Matthiola spp.), which is a biennial in the cabbage family (Brassicaceae).

Matthiola incana (Zones 5–8, 8–5), the day-scented stock, is the species from which most garden stocks are derived. Most produce single spikes of four-petaled or double flowers in what garden writer Louise Beebe Wilder perfectly describes as old, worn chintz hues: "old rose, dim purple, delicate buff, [and] cream." The blossoms smell heavily of cloves, with a hint of brassicaceous rankness, like aging hyacinths. Typically, the doubles are more strongly scented than the singles. 'Excelsior Mammoth Column' (two to three feet tall by about eight inches wide) is an extremely fragrant heirloom cutting strain; nearly half their flowers are double. 'Trysomic Seven-Week Mix' is an early-blooming, heat-tolerant strain with up to 70 percent double blooms; plants reach 12 to 15 inch-



'Vintage Rose' stock has double flowers in an artful blend of pink, white, and green.

Sources

Annie's Annuals and Perennials, Richmond, CA. (888) 266-4370. www.anniesannuals.com.

The Fragrant Path, P.O. Box 328, Fort Calhoun, NE 68023. Thompson & Morgan, Aurora, IN. (800) 274-7333. www.tmseeds.com. Renee's Garden, Felton, CA. (888) 880-7228. www.reneesgarden.com.

Resources

Annuals and Tender Plants for North American Gardens by Wayne Winterrowd. Random House Books, New York, 2004.

Armitage's Garden Annuals: A Color Encyclopedia by Allan M. Armitage. Timber Press, Portland, Oregon, 2004.

Armitage's Manual of Annuals, Biennials and Half-Hardy Perennials by Allan M. Armitage. Timber Press, Portland, Oregon, 2001. **Discovering Annuals** by Graham Rice. Timber Press, Portland, Oregon, 1999.

es tall. 'Vintage Series' (15 to 20 inches tall by 12 to 14 inches wide) makes wellbranched plants with up to 60 percent double flowers in burgundy, dusty rose, lavender, peach, red, white, or pale yellow.

Stocks are said to prefer well-drained soil but in Santa Fe, where I live, they do perfectly well on our alkaline clay so long as their site is augmented with lots of compost and given some protection from the worst of the New Mexico afternoon sun; stocks, like their relatives, broccoli and cabbage, like to be grown cool.

Wallflowers (Erysimum cheiri, formerly Cheiranthus cheiri, Zones 3-7, 7-1) also



Wallflowers, like their cabbage-family relatives, thrive in cooler weather.

belong to the cabbage family and have very similar growing requirements. Their long, narrow leaves are stiff and dark, lustrous green; with age the stems and branches become woody. Their four-petaled blossoms may be primrose, gold, lilac, mauve, red, orange, cream, or bicolored, and they bear a soft, sweet, slightly musky perfume with a hint of Russian leather.

Seed-strains include 'Charity Mix', which grows to 10 inches tall; it blooms in fall and again the following spring; 'Harlequin' grows 10 to 12 inches, with a very wide color range; 'Super' is extra-tall at 14 to 16 inches, in ruby, rose, chamois, scarlet, and gold.

Named single-color cultivars include 'Old Bloody Warrior', a rare antique clonal variety sporting fully double flowers in dark cinnamon red; 'Harpur Crewe', an exquisite double gold; 'Cloth of Gold', a rich yellow; 'Covent Garden', a warm orangey-rust; and 'Vulcan', with deep velvety crimson flowers.

Heliotrope (Heliotropium arborescens, Zones 11, 12-1 is a half-hardy perennial in the borage family (Boraginaceae). The plants bear pointed, oval, corrugated, dark green leaves, grayish on their undersides and a bit fuzzy, sometimes purplish around the edges. They can reach five feet high in their native Peru and in the Pacific Northwest, but in most American gardens are unlikely to top two feet. Their very small flowers are funnelshaped, with five flared petals at the tips; they come in white, lilac, violet-blue, purple, and deep violet, and are borne in



'Fragrant Delight' is one of the reliably fragrant selections of heliotrope.

curling trusses that bend towards shifting available light.

Heliotrope's fragrance can vary considerably not only from cultivar to cultivar but also from plant to plant. Strains said to be reliably perfumed include 'Fragrant Delight', which bears rich purple blossom clusters on plants 18 to 24 inches tall by about 24 inches wide; 'White' (also listed as 'Alba'), which bears beautiful white flowers that smell like vanilla baby powder; Scentropia™ 'Dark Blue' and Scentropia™ 'Silver' (both to 15 inches tall), which bear large scented clusters of purple or snowwhite blossoms, respectively.

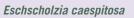
The plants do best with cool conditions and moist, compost-enriched, well drained soil; they are hardy to about 45 degrees Fahrenheit.

Jasmine tobacco (Nicotiana alata, Zones 10-11, 12-1) is an upright tender perennial herb native to Argentina and Brazil. Plants grow four to six feet tall by about a foot wide, with sticky, sparsely branched stems and large, spoon-shaped, leaves that connect to their stems by winged petioles (alata means "winged"). The two- to four-inch-long, trumpetshaped blossoms are white with five flared star-shaped petals. They open in summer from late afternoon to early morning, releasing an exquisite, far-ranging jasmine-

MORE FRAGRANT ANNUALS

Plant name	Height/Spread (inches)	Characteristics		SDA Hardiness, AHS Heat Zones
Brachycome iberidifolia 'Mixed Colors' (Swan River daisy)	10–12/24	Sweetly scented blue, pink, violet, and white one-inch daisies in summer. Spreading plants, good for baskets.	Australia	0, 12–1
Clarkia breweri (syn. Eucharidium breweri)	8/9–12	Xeric annual. Pendant, richly scented, fringed pink flowers April through June.	California	0, 9–1
Dianthus caryophyllus 'Early Dwarf Vienna'	14/10	Tender perennial. Richly clove-scented, single to double fringed flowers. Blooms first year from seed.	Europe	7–10, 10–7
Dianthus 'Loveliness'	12–18/8–10	Biennial/short-lived perennial. Deeply fringed, strongly perfumed white, pink, lilac, or rose flowers in summer; blooms first year from seed.	Hybrid origin	3–9, 9–1
Eschscholzia caespitosa (tufted poppy)	8–10/10	Sweetly scented yellow cups; ferny foliage. Average to rich soil.	California	0, 9–1
Gilia tricolor (bird's eyes)	12–30/6–12	Feathery foliage; half-inch, violet to lavender, chocolate-scented bellflowers with purple-spotted throats and blue pollen. Summer, for dryish soils.	California	0, 12–1
Linanthus grandiflorus (grand linanthus)	14–20/9–20	Ferny foliage; sweetly scented, white to lavender-flushed cups; mid-spring to summer.	California	0, 8–1
Mentzelia lindleyi (blazing star)	10–20/9	Feathery leaves; evening-scented gold cups, orange-red at base in summer.	California	0, 9–1
Phlox drummondii "Red Form" (red annual phlox)	4–18/6–10	Crimson, sweetly soap-scented flowers in summer. Red form is the most fragrant.	Texas	0, 12–1
Proboscidea fragrans (sweet unicorn plant)	12–40/36	Five-lobed leaves; fragrant violet-red to purple flowers blotched darker purple and banded in bright yellow; decorative seedpods.	Texas to Mex	ico 0, 11–4
Tropaeolum majus 'Double Gleam Hybrids' (nasturtium)	12/6–12	Semi-trailing, sweetly scented, semidouble flowers in yellow, orange, and scarlet.	Hybrid (specinative to Boli and Colombia	via
Viola xwittrockiana 'Fizzy Lemonberry' (pansy)	6–8/8–10	Very sweetly scented, frilly, yellow and purple flowers.	Hybrid origin	8–11, 9–1
Zaluzianskya capensis (night phlox)	12–18/12	Honey-scented, reddish-purple, and white summer flowers, scent is sweetest at night.	South Africa	9–11, 12–5







Gilia tricolor



Zaluzianskya capensis

REGIONAL RECOMMENDATIONS

In addition to my own favorites, here are recommendations from experts in different regions of the country.

Renee Shepherd, owner of Renee's Garden in Felton, California, is partial to heliotrope, which, she says, "is an old-fashioned cottage garden flower that smells like cherry pie." The semidwarf 'Marine' is the strain she grows.

Shepherd reports that sweet alyssum (Lobularia maritima, Zones 10-11, 12-1) is the annual that draws the widest range of pollinators and other beneficial insects to her garden. "I love its sweet meadow grass fragrance," she says.

Ed Rasmussen, owner of the Fragrant Path seed company in Fort Calhoun, Nebraska, places jasmine tobacco (Nicotiana alata) high on his list of favorite scented annuals for his region. He plants it at the edge of his patio, near his computer room where he often finds himself in the evening. "There it mopes during the day, but I am not there to notice it then," he says. "Come evening, the large white stars expand and release their rich perfume into the night air." He cites several advantages to this scented annual: "You really only need to plant it once since it will reseed and come back on its own. It can tolerate light frosts so usually lasts well into the fall. Another advantage is that it will grow and flower in a fair amount of shade."

Moonflower (Ipomoea alba, Zones 10-11, 12-10) is also a favorite of garden writer and consultant Linda Askey, who lives in Alabama. She suggests cutting a mature, spiral-shaped bud to place in a vase indoors to open, where it will release its sweet fragrance.

Another Askey favorite is woodland tobacco, also known as white shooting stars (Nicotiana sylvestris, Zones 10-11, 12-1). Native to Argentina, these vigorous, strong-stemmed plants grow three to five feet tall by three feet wide, and bear sweetly scented clusters of night-fragrant blossoms—each flower is a white, five-lobed trumpet with a very long, thin corolla tube.



For border edges, grow compact nicotiana hybrids such as 'Perfume Deep Purple'.

like scent that brings hawk moths and other pollinators out in droves.

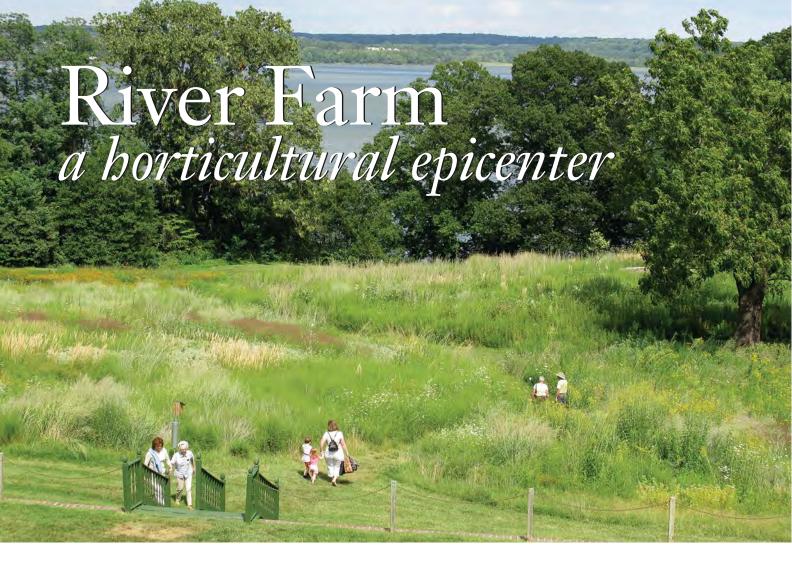
Jasmine tobacco is easily raised from seed in a sunny to partly shady spot in rich soil, and will often self-sow; the plants are reputed to be root-hardy south of USDA Zones 7 or 8. Set them in the ground or in tubs outdoors against the wall beneath your bedroom window, and your dreams will be sweet indeed.

Nicotiana ×sanderae (Zones 10–11, 12–1) is the botanic moniker for the bedding nicotianas available in most garden centers. They are the result of crossing jasmine tobacco with N. forgetiana, a Brazilian annual or short-lived perennial garden species bearing purplish-scarlet and green blossoms. N. ×sanderae is a shrubby, stickyfurry, day-blooming plant that grows one to two feet tall or more depending on the cultivar, with wavy-edged, spoon-shaped leaves. Its N. forgetiana genes have been coaxed into a range of somewhat muddy colors from green, lilac, pink, salmon, and rose through red, crimson, and purple.

Many seed strains exist, most without much scent to my nose even at night. There are some exceptions. N. ×sanderae 'Perfume' strain (10 to 12 inches tall) bears upward-facing blossoms all summer in a wide range of colors. The flowers possess respectable late afternoon to morning fragrance, particularly in humid climates, and one color, 'Perfume Deep Purple', is a 2006 All-American Selections winner that flowers in a riveting, saturated grape. 'Domino Mix', to 14 inches, comes in nine colors and is reputed to have good afternoon fragrance, too. But my favorite N. xsanderae strain is a Russian heirloom called 'Perfect'. Plants grow two to three feet tall, with scented blooms in gorgeous muted pastels: dusky plum to terracotta and rose. (For additional scented annuals see page 26).

All good things come to an end. When the first fall frost blackens the annuals growing in my Santa Fe yard, I mourn them. They seem so eager to please, with their bright faces and sweet perfumes; they sparkle so readily in my beds, borders, boxes, and window ledges; they endure so uncomplainingly the snobbery of those who dismiss them as "mere annuals." I urge you to stuff as many as possible into your garden next year. I certainly will. o

A regular contributor to The American Gardener, Rand B. Lee is a garden writer based in Santa Fe, New Mexico.



Steeped in history, the American Horticultural Society's headquarters at River Farm is both a living example of the Society's mission, and a platform from which the organization delivers educational programs and outreach to members and gardeners nationwide. BY VIVEKA NEVELN

EMEMBER THE last time you moved into a new home? Along with unpacking your belongings and redecorating, you began to discover the quirks and characteristics of your new residence. You started to get to know the neighbors. Maybe you even began planning a garden out back. Everything felt new, exciting, and a little chaotic.

So it was for the American Horticultural Society (AHS) when it moved into its current headquarters at River Farm almost four decades ago. At the time this 25acre property along the Potomac River in Virginia already boasted an impressive horticultural heritage, including centuries-old trees and other unique plants to

treasure. The land also had a rich historical legacy, once belonging to President George Washington himself. And after many years of operating out of borrowed spaces and cramped quarters, this new home presented a tremendous opportunity to revitalize the AHS. But first, a fresh coat of paint, some new furnishings, and making friends with resident ghosts.

A STORIED PAST

Though George Washington never lived at River Farm, the land's connection with our first president was the catalyst for the AHS acquiring its new home from then owner Malcolm Matheson, Sr. An engineer who worked in the home construction industry, Matheson lived on the estate for more than five decades with his family. In 1971, anticipating retirement, he began entertaining offers for his beautiful riverfront property. The Soviet Embassy expressed interest and perhaps had there not been a Cold War going on, River Farm might have ended up as a staff retreat for Russian dignitaries. Instead, media reports of the prospective sale whipped up such a public furor over the idea of "foreign interests" occupying land once belonging to George Washington that the State Department intervened to stop the sale.

A couple of years later, horticultural philanthropist and AHS Board member

River Farm's four-acre André Bluemel Meadow serves as a visitor's destination and an outdoor classroom for school groups and garden clubs.

Enid A. Haupt enabled the Society to acquire River Farm with a \$1 million donation. On May Day in 1974, Haupt and First Lady Patricia Nixon helped the AHS open its new headquarters. Addressing the crowd of horticultural and government dignitaries invited to the event, then AHS President David Leach said, "River Farm represents an opportunity to preserve an historic heritage while at the same time establishing a national center dealing with



Above: Pat Nixon, left, and Enid A. Haupt were guests of honor at the dedication of the new AHS headquarters on May 1, 1974. Top right: A visiting children's group gets an introduction to growing vegetables in containers. Bottom right: A majestic Osage orange (Maclura pomifera) tree at River Farm was recently named the national champion.

the most important components of our environmental crisis. It is our wish to maintain a living and livable landscape for the enjoyment of future generations."

This "historic heritage" was one of the first things the AHS began digging into upon assuming ownership of River Farm (for a timeline of key dates, see "The George Washington Connection," page 32). Though little remains from Washington's time, the foundations of the main residence (now known as the Estate house) appear to be original to the mid-1700s, when the land was known as Clifton's Neck. Over the years, one of the most notable residents of this modest home was Tobias Lear, Washington's personal secretary, who was given rent-free use of the property in 1795.

When Lear took up residence, he named his home Walnut Tree Farm, possibly because of the venerable black walnut trees (Juglans nigra) that to this day remain





in the meadow leading down to the Potomac River. Years later, Lear dubbed it Wellington, most likely in honor of the Duke of Wellington, one of heroes of the Battle of Waterloo, which brought an end to Napoleon's reign in 1815. A year later, Lear shot himself with a pistol, though the details are sketchy and there are conflicting reports as to where the suicide occurred. Some sources indicate he died at the farm. others that he pulled the trigger in the garden at his Washington, D.C., home. Whichever version is true, River Farm staff members sometimes attribute odd happenings to Lear's restless spirit.

Along with the walnuts, another arboreal example of living history at River Farm is a gigantic, gnarled Osage orange tree (Maclura pomifera). This tree, estimated to be more than 200 years old, was





Above: River Farm served as a showcase for new plant introductions during a spring event sponsored by the horticulture industry. Above right: Uncommon and rare plants at River Farm include a grove of Franklin trees. Right: Participants in an AHS Garden School on trees gather at River Farm.

recently recognized as a National Champion by the National Register of Big Trees, designating it the largest of its species in the United States.

Many of River Farm's other large, old trees and shrubs date to the 1920s and '30s, when the Matheson family extensively renovated the Estate house and created a parklike landscape around it. Picture neatly trimmed boxwood hedges, sweeping lawns, and stately specimen trees. Since taking over the stewardship of River Farm, the AHS has maintained many of the property's prominent landscape features of that period so that what a visitor sees today is reminiscent of a "gentleman's estate" from a bygone era of gracious living in the 1930s.

FROM PRIVATE ESTATE TO NATIONAL HEADQUARTERS

Soon after moving in, the AHS renamed the Wellington estate River Farm in honor of George Washington and



opened the grounds to the public. Taking inspiration from the first president's legacy of horticultural innovation, practical experimentation, and conservation, the Society has endeavored to dovetail these ideals with its own mission when making enhancements to River Farm.

For example, over the years several plant societies have woven among River Farm's boxwoods some of the best plants for American gardens, including dahlias, daylilies, ivies, irises, roses, and azaleas.

Near to a towering burr oak (Quercus macrocarpa) and ancient American holly (Ilex opaca), a grove of rare Franklin trees (Franklinia alatamaha) was planted in 1983 as part of an evaluation program for the U.S. National Arboretum. Another happy result of a plant trial in the 1980s is a row of hardy camellias that bloom profusely every winter and early spring on the edge of River Farm's woodland. Developed by USDA plant breeder William Ackerman, one of these camellias made its way into



Each year, future horticulturists learn real-world skills while participating in the AHS's Horticultural Internship program. Here, two interns learn how to properly prune a formal espalier of apple and pear trees at River Farm.

the trade as 'River Farm Beauty'. A demonstration orchard planted in 1981 showcases cultivars of apple, pear, and persimmon trees developed for the mid-Atlantic region. Thousands of other native and exotic plants round out the collections and

provide year-round interest in the gardens.

Reflecting one of the AHS's most important initiatives, River Farm's children's garden encourages exploration of the natural world through play. Completed in 1993 in conjunction with the Society's first



Shown here during filming for a *Today Show* feature on author Catherine Zimmerman, the André Bluemel Meadow has been widely profiled in national and regional media.

annual National Children & Youth Garden Symposium, this garden has been a model for similar gardens around the country. Area school groups often take field trips to this garden and it has served as an outdoor classroom for the AHS's own programs for young gardeners.

Another of the AHS's key messages—sustainable gardening—is exemplified by River Farm's four-acre André Bluemel Meadow. Originally a swath of lawn sloping down to the Potomac River, this area is now planted with native perennials and grasses to provide wildlife habitat and a more earth friendly alternative to turfgrass.

Visitors can catch glimpses of the Washington Monument and admire the river views while exploring the meadow. For most of the year, the meadow hums with the activity of all sorts of wildlife, from pollinating insects and songbirds to small mammals such as foxes and groundhogs. As one of the few such ecosystems in the area, it is often a destination for garden clubs, school groups, bird watchers, and photographers. The meadow has also inspired a recently published book about meadow-making and has been featured in other gardening books and articles.

As a testament to River Farm's exemplary gardens, the American Society for Horticultural Science designated it as a horticultural landmark in 2004. This honor is given in recognition of a site's "historical, scientific, environmental, and aesthetic value."

"River Farm is an American icon, one that gardeners are fortunate to have ownership of through the AHS," says University of Georgia horticulturist Allan Armitage, who is currently an AHS Board member. "As a gardener and lover of plants, I am not as interested in how historically wonderful it may be. I am drawn to the magnificent vista of the Potomac, I see the wildflower meadow and the gardens beckoning me to explore."

CELEBRATING AMERICAN HORTICULTURE

Not only has River Farm become the embodiment of the AHS's multi-faceted mission, its gardens and grounds have provided a fitting place for the Society to bring together the equally diverse field of horticulture. For home gardeners, handson workshops teach practical techniques such as tree planting and pruning, guid-

THE GEORGE WASHINGTON CONNECTION

A portion of a 1,800-acre parcel of land that has changed hands numerous times since Virginia was colonized, what is now River Farm has been home to a variety of people, starting with the Native Americans who frequented the area. Here are some highlights of River Farm's history prior to the AHS's occupancy.

1653 Captain Giles Brent acquires a grant for the 1,800-acre tract of land that includes River Farm. The property is called Piscataway Neck.

1739 The land passes to William Clifton, who married into the Brent family. He renames it Clifton's Neck and builds the original house at River Farm in 1757.

1760 Clifton sells the property to George Washington, who called it his "Neck Plantation." A portion of this land becomes what Washington calls his River Farm, comprising seven fields and 1.200 acres.

1790 As a wedding present, Washington gives his nephew George Augustine Washington and his wife Fanny Bassett use of Walnut Tree Farm, the northernmost parcel of the Neck Plantation totaling some 200 acres, which includes the land the AHS's River Farm is on today.

1795 Washington's personal secretary Tobias Lear takes up residence at Walnut Tree Farm, now as the husband of Fanny Bassett, who had been widowed in 1793. Years later, Lear renames

1816 Upon Lear's death, the property returns to the Washington family.

1859 Charles Augustine Washington sells 652 acres of the Neck Plantation to three Quaker brothers. One of them, Isaac Snowden, lived on what is now the AHS's River Farm.

1866 280 acres including River Farm was sold to new owners. Over the next 60 years, the land is subdivided and sold off for summer homes for D.C. residents.

1919 Malcolm Matheson Sr. purchases Wellington—now a 27-acre estate—and extensively renovates the house and gardens.

1971 The Soviet Union tries to purchase the property as a retreat for its diplomats. The U.S. State Department intercedes to stop the sale because of its historic connection to the country's first president.

1973 The AHS purchases the now 25-acre property using a generous donation from the Enid A. Haupt Charitable Trust, renaming it River Farm in honor of George Washington.



Malcolm Matheson, Sr.

ed tours allow visitors to discover new plants to try in their own gardens, and lectures by gardening experts inspire and instruct on everything from flower arranging to rain gardening.

Gardening personalities have used the AHS's headquarters as a stage set and demonstration site for television and radio programs. For the horticulture industry, River Farm has served as a venue for evaluating new introductions from national and international plant development companies. And every year, the AHS holds an awards ceremony honoring national horticultural leaders who have made outstanding contributions to fields such as garden design, urban beautification, horticultural communication, and teaching.

"What truly sets River Farm apart is that, while it has such a fascinating history, its evolution is on a continuum rather than remaining frozen in a particular period of time," says AHS Executive Direc-



Young visitors admire a crape myrtle in River Farm's children's garden.

tor Tom Underwood. "The result is a place where the past and present commingle, old and new ideas harmoniously mesh, and every aspect of horticulture and gardening is celebrated and spotlighted."

At the core of the Society's work is a passionate belief that gardens and gardening can change lives and make the world a better place, as manifested by River Farm. To that end, more gardens, more educational programs, and new facilities will continue the evolution of River Farm into a center for American horticulture. Much like strong roots help a plant to thrive, River Farm provides an anchor for the AHS's important work. This home base enables the Society to provide authoritative gardening education and resources while directing progress in the horticultural field so that every gardener and every American may benefit.

Viveka Neveln is associate editor of The American Gardener.







ANNOUNCING THE AMERICAN HORTICULTURAL SOCIETY'S

"BY THE FOOT"

CAMPAIGN

THE CHALLENGE AT HAND

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

AN INVESTMENT IN TODAY AND TOMORROW

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

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



MAKING A DIFFERENCE, FOOT BY FOOT

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



To underwrite a foot (or feet!), please use the "Help Gardening Grow" envelope included with this issue of *The American* Gardener and note "By the Foot Campaign." You may also contact. Courtney Capstack, Development and Outreach Manager, by phone at 703-768-5700 ext. 127 or by e-mail at ccapstack@ahs.org. Special recognition is available for gifts of 20 feet or more.

Cutting-Edge Trees

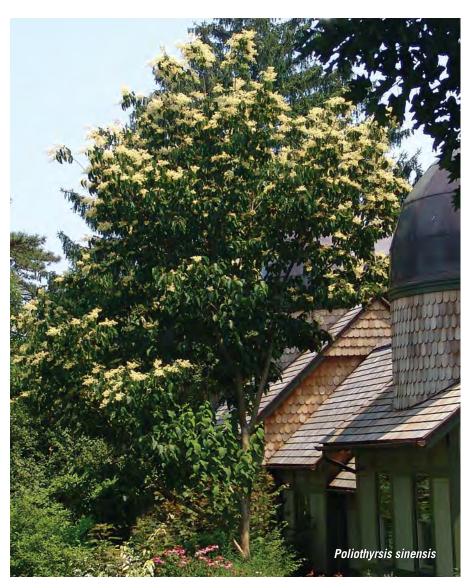
Ready to go beyond the triedand-true specimen trees? If you're willing to go out on a limb, consider some of these promising trees that botanical gardens have been evaluating.

BY ANDREW BUNTING

T MANY public gardens and arboreta, a key mission is to evalu-▲ ate new plants for home landscape use. For example, the Scott Arboretum in Swarthmore, Pennsylvania, where I work as curator, receives a steady stream of new cultivars of fairly common tree genera, such as maples, ashes, oaks and flowering cherries, which we add to our gardens and collections for evaluation. From time to time we also get in more uncommon and rare species of trees from plant hunters or other botanical gardens. Many of these trees have shown potential for broader use in American home landscapes and are worth getting to know. I've also compared notes with other woody plant experts around the country to find out what other up-and-coming trees are out there.

CHINESE PEARLBLOOM TREE

In 1993, the Scott Arboretum received six seedlings of Poliothyrsis sinensis (USDA Zones 6-8, AHS Zones 8-5) from horticulturist J.C. Raulston of the North Carolina State University Arboretum (now the JC Raulston Arboretum) in Raleigh. These trees—as well as a couple of others I will discuss—were part of an annual plant distribution by Raulston, who died in 1996. Discovered in central China, P. sinensis was introduced to Western horti-



culture in 1908 by plant hunter E.H. Wilson, who provided seeds to the Arnold Arboretum in Jamaica Plain, Massachusetts. A member of a relatively obscure family, Flacourtiaceae, it is sometimes referred to as Chinese pearlbloom tree.

Now, 17 years later, the three remaining trees at the Scott Arboretum are approximately 30 feet tall. These fast-growing deciduous trees thrive in full sun and seem very tolerant of poor soils and difficult growing conditions. In July and August, just when the garden needs a splash of color, the ends of the branches are covered

in large, loose panicles of small, yellowishwhite flowers; these are succeeded by decorative seed capsules that often hang on into winter. In the fall, the lustrous, dark green, oblong leaves turn beautiful hues of orange and yellow. It has proven relatively easy to grow from seed.

SHY FLOWERING BEAUTY

Another summer-blooming tree is *Em*menopterys henryi (Zones 7-9, 9-6), also introduced by E. H. Wilson, who described it as "one of the most strikingly beautiful trees of the Chinese forests."

In the wild, trees have been known to reach more than 100 feet tall, but most plants in cultivation are significantly smaller; the likely mature size is 30 to 50 feet. The ovate to oblong leaves, adorned by a pink petiole, are large and tropical-looking.

Part of the mystique of this tree is that it takes many years before it sets flowers. The first tree to flower in the United States was in a private collection in Silver Spring,



Maryland, in 1994. Since then, other plants have flowered at the JC Raulston Arboretum, at Quarryhill Botanical Garden in Glen Ellen, California, and at the Scott Arboretum. The gardener's patience is rewarded by the funnel-shaped white flowers, which bloom in large terminal corymbs from June to July. The smaller flowers are surrounded by large white bracts that appear to float above the foliage. From late summer to fall, spindleshaped seed capsules develop.

The tree thrives in full sun with moist, fertile soil. Swarthmore, in USDA Zone 7a, seems to be at the northern edge of its hardiness range.

SWEETHEART TREE

Another of the trees the Scott Arboretum received through the Raulston distribution was Euscaphis japonica (Zones 6-8, 8–6), sometimes referred to as the sweetheart tree, a plant Raulston himself brought back from a trip to South Korea





in 1985. It is native not only to Korea, but also to Japan and eastern China.

After growing slowly for years, our lone specimen is now a stunning small tree 15 feet tall; current estimates are that the tree's mature size will be 25 to 30 feet. Our tree is single-trunked and branches at about six feet. Its glossy, pinnately compound leaves turn purple in the fall. The gray branches exhibit a slight white striation, which provides winter interest. Quarter-inch, yellow-white flowers bloom in terminal inflorescences in early to midsummer.

The tree's most stunning attribute, however, is its fruits. In late summer, the sprays of small, green, leathery, heartshaped fruits turn to light pink, gradually darkening to a striking cerise. From October into November, the fruits begin to open up, revealing shiny black seeds that dangle from an opening in the pod. The contrast between the pink and black is quite striking.

ASIAN SASSAFRAS

Many gardeners are familiar with sassafras (Sassafras albidum), which is native throughout the eastern part of the United States. Although not widely cultivated in gardens, it is prized for its thicketlike growth habit, its wildlife-attracting fruits, and its stunning orange and yellow fall color. I am much taken with the beauty of another member of the genus, Sassafras tzumu (Zones 7-9, 9-6), which is native to the central and eastern parts of China.

Like the American sassafras, this species has a sympodial, or layered, branching habit that gives it an elegant, tiered effect. The leaves are larger than Sassafras albidum, but come in the same three shapes (entire, mitten-shaped, and three-lobed) as our native species and turn similarly brilliant shades of yellow and orange in fall.

"It's a fantastic, highly textural and fastgrowing tree in the Pacific Northwest and not known nearly as well as it should be," says plant explorer and author Dan Hinkley, who lives in Indianola, Washington. "The autumn color it provides is long and intense—perhaps better than any deciduous tree that I grow." This tree can reach 40 feet tall in 10 years. It is hardy from USDA Zone 7b south and seems well acclimated to both the Pacific Northwest and the southeastern United States.

NEW MAGNOLIAS

In the last 20 years, many new and exciting magnolia species have been introduced. Among these are Asian natives such as Magnolia biondii, M. cathcartii, M. chapensis, M. ernestii, M. kwangtungensis, M. yunnanensis, and M. yuyuanensis. These species are slowly finding their ways into American nurseries and gardens by way of botanical institutions such as Quarryhill Botanical Garden in Glen Ellen, California; the University of California Botanical Garden at Berkeley; the University of British Columbia Botanical Garden in Vancouver; and the Atlanta Botanical Garden.

Of these, I particularly like M. yuyua-

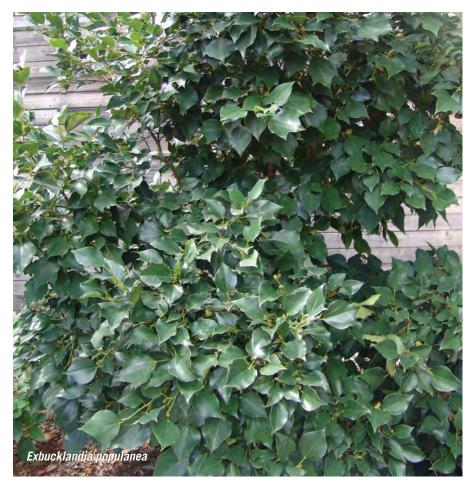


nensis, which is a beautifully shaped, upright evergreen species with an expected mature height of 25 to 40 feet. The narrow, dark green leaves have a characteristic boat shape. Although somewhat fleeting, the flowers are stunning when they appear in late spring and early summer. Each features six leathery, creamywhite tepals surrounding a deep purplered cluster of stamens. The hardiness and adaptability of this species is still being determined, but I am aware of specimens flourishing at Magnolian Grove Arboretum in Pickens County, South Carolina, in Overland Park, Kansas, and in Washington, D.C.

WITCH HAZEL RELATIVE

Another striking broad-leaved evergreen is Exbucklandia populanea (Zones 8–10, 10-7), a curious member of the witch hazel family. It is an upright, pyramidalshaped tree that has interestingly lobed, glossy green leaves. In his book Trees for All Seasons, Sean Hogan describes these as "looking for all the world like a giant Algerian ivy." Hogan, the owner of Cistus Nursery near Portland, Oregon, also reports that the leaves take on a coppery to bronze cast in winter.

The plant is native to the Himalayan region in and around the tiny kingdom of Bhutan, where Georgia plantsman Scott McMahan reported observing ancient specimens more than 100 feet tall.



MORE UNCOMMON SPECIMEN TREES TO CONSIDER

Plant name	Height/Width (feet)	Notable characteristics		ISDA Hardiness, AHS Heat Zones
Acer laevigatum	45/30	purple tint; entire, non-lobed leaves; evergreen	China, India, Nepal, Vietnam	8–10, 10–7 1
Alangium chinense	20/15	white flowers; single trunk or multi-stem; yellow fall color	China	6–9, 9–6
Cathaya argyrophylla	60/30	upright, conical, pinelike tree; evergreen;	China	6–9, 9–6
Cinnamomum chekiangense	45/18	emerging foliage is soft pink; evergreen	China	7b–9, 9–7
Clethra monostachya	15/8	white, slightly fragrant flowers in summer; yellow fall color	China	7–10, 10–6
Lagerstroemia subcostata	20/20	white flowers; cinnamon-colored flaking bark; orange-yellow fall color	Japan, China	7–9, 9–6
Pinckneya bracteata	20/15	large pink flowers in early summer; dull yellow fall color	southern Georg and northern Flo	•
Platycarya strobilacea	45/25	fine foliage, interesting bristly, conelike fruits; yellow fall color	China	6–9, 9–6
Quercus buckleyi	50/30	rounded habit, medium-sized; red fall color	Texas	5–9, 10–6
Sycopsis sinensis	15/15	yellow to red flowers; interesting upright habit; evergreen	China	7–9, 9–7





It's hard to imagine the tree attaining such heights in North America, but I have seen specimens growing equally well at Plant Delights Nursery near Raleigh, North Carolina, and at the UC Botanical Garden at Berkeley, where there is a century-old specimen that is 25 feet tall. Yet at the Atlanta Botanical Garden (ABG), the staff has tried this tree on numerous occasions without success. Jamie Blackburn, ABG's curator of woodland gardens, suggests that this is probably due to an issue of provenance, where some plants in cultivation are the result of collections from northern regions or higher altitudes, which would contribute to them being more winter hardy.

According to Hogan, Exbucklandia is difficult to propagate, which explains why it is not yet more widely available.

DAPHNIPHYLLUM

Throughout eastern North America, one of the biggest challenges for gardeners is browsing by white-tailed deer. Many plants are listed as deer resistant, but this designation means very little in areas where the deer population is significant. Among the few plant groups that are truly deer-proof is Daphniphyllum, a member of the daphne family that is only just starting to find its way into nurseries.

While there are a number of Daphniphyllum species and cultivars hardy to the Southeast, California, and the Pacific Northwest, only two are reliable in the Northeast. One, D. humile, is a slowgrowing rounded shrub reaching only about five feet tall and wide over 10 to 15 years. More pertinent to this discussion is D. macropodum (Zones 7-10, 10-7),

which will become a large shrub or small tree in the mid-Atlantic states, growing up to two feet a year to reach 15 to 25 feet tall at maturity.

Daphniphyllum macropodum resembles a rhododendron. Its large leaves are glossy, dark green above and silverywhite beneath, supported by petioles that are sometimes a striking pink-red. The clusters of emerging pink flower buds are highly ornamental in March and April, but the small green or purplish flowers are fairly inconspicuous. Although fruit set is not reliable, the grapelike fruits are deep blue-black with a slight white sheen, contrasting nicely with the pink petioles in early summer.

Resources

"A Late Summer Ornamental: Poliothyrsis sinensis" by Stephen A. Spongberg, Arnoldia (Fall 1994 issue). http://arnoldia.arboretum. harvard.edu/pdf/articles/918.pdf. International Oak Society, www.internationaloaksociety.org. International Magnolia Society, www.magnoliasociety.org. **Manual of Woody Landscape Plants** (6th edition) by Michael Dirr. Stipes Publishing, Champaign, Illinois, 2009.

Native Trees for North American Landcapes by Guy Sternberg with Jim Wilson. Timber Press, Portland, Oregon, 2004.

Trees for All Seasons: Broadleaved Evergreens for Temperate Climates by Sean Hogan. Timber Press, Portland, Oregon, 2008.

Sources

Cistus Nursery, Sauvie Island, OR. (503) 621-2233. www.cistusnursery.com. Colvos Creek Nursery, Vashon, WA. (206) 749-9518. www.colvoscreeknursery.com. Forestfarm, Williams, OR. (541) 846-7269. www.forestfarm.com. Heronswood Nursery, Warminster, PA. (877) 674-4714. www.heronswoodnursery.com. Woodlanders, Inc., Aiken, SC. (803) 648-7522. www.woodlanders.net.



Daphniphyllum macropodum seems to be fairly adaptable to exposure. At my home garden in Swarthmore, I planted a small specimen in dense, dry shade at the base of a Norway spruce (Picea abies). Despite this inhospitable site, the plant is thriving. Equally vigorous specimens are growing in both deep shade and full sun at the Scott Arboretum.

TAIWANESE CONIFER

One of the most elegant of all the conifers is also one of the most obscure in cultivation. Introduced in 1921 by E. H. Wilson, Taiwania cryptomerioides (Zones 8–9, 9–7) is native to the western slopes of Mount Morrison in Taiwan. In 1931, it was given the Award of Merit by the Royal Horticultural Society, but since then has existed as a rarity even in botanical gardens.

Commonly known as taiwania or coffin tree (the latter apparently because its wood was used for coffins), this striking pyramidal conifer has long swooping branches that support drooping branchlets cloaked in painfully sharp, bluishgreen needles. It has reddish bark that exfoliates in strips. In the wild, it can reach well over 100 feet tall. On the West

Coast, there are several fine specimens in the range of 40 to 50 feet tall at the UC Botanical Garden at Berkeley, the University of Washington Botanic Gardens in Seattle, and the University of British Columbia Botanical Garden.

Descriptions in reference books would lead readers to believe this is a finicky plant that will only grow in sheltered humid forests, yet I have seen wonderful specimens growing with very little protection at the United States National Arboretum in Washington, D.C., at the Bartlett Arboretum in Charlotte, North Carolina, and at the Atlanta Botanical Garden. At the Scott Arboretum, we planted our first specimen this past fall. I suspect that with a little protection it will thrive in USDA Zone 7a.

FRANKLINIA REINVIGORATED

For the last several years there has been a buzz in the horticultural community regarding the possibility of reinvigorating the fabled but finicky Franklin tree (Franklinia alatamaha, Zones 6–9, 9–6) by crossing it with closely related genera in the camellia family (Theaceae). Candidates for this intergeneric cross have included the drought tolerant loblolly bay (Gordonia lasianthus), an evergreen na-



tive along the coastal plain from Virginia to Florida, and Schima argentea, a southeast Asian native.

For those not familiar with the history of the Franklin tree, it was discovered along the banks of the Altamaha River in Georgia in 1765 by Philadelphia plant explorers John and William Bartram. The Bartrams collected seed, which was fortuitous because soon thereafter the wild trees vanished—all the Franklin trees in existence today trace back to the Bartrams' collection. The tree was named in honor of the Bartrams' friend, Benjamin Franklin.

A specimen tree with four-season interest, the Franklin tree is best known for its large, white, camellialike flowers with a yellow center, which appear in late summer. The drooping leaves turn fire engine red in October and November, and the gray bark with white striations offers winter appeal. Yet, partly because of its lack of genetic diversity, the plant also has several shortcomings: It is not very tolerant of drought, can be difficult to transplant, and is susceptible to root rot. Among the objectives of crossing Franklinia with related genera is the possibility of developing a plant that retains the outstanding attributes of *Franklinia* but that would be more vigorous and tolerant of disease and drought (and perhaps evergreen).



Over the last decade, plant breeder Thomas G. Ranney and colleagues at North Carolina State University (NCSU) have successfully developed intermediate hybrids between Franklinia and Gordonia (×Gordlinia grandiflora) and between Franklinia and Schima (×Schimlinia floribunda). Although still under evaluation, these hybrids hold great potential for the gardening world. Ranney, who works at NCSU's Mountain Horticultural Crops Research and Extension Center in Fletcher, continues to work on refining the ornamental attributes of these hybrids.

For those of us who enjoy the chance to grow unusual trees, the options are endless. New plants are constantly being introduced by plant collectors searching out species from the farthest reaches of the United States and the world. Botanic gardens and arboreta are more than happy to obtain seeds or cuttings, grow and evaluate the plants for many years, and, eventually introduce plants with the exciting potential of Emmenopterys henryi or Sassafras tzumu to gardeners everywhere. •

Andrew Bunting is curator at the Scott Arboretum of Swarthmore College in Swarthmore, Pennsylvania.

GARDEN SOLUTIONS

Taking a Big-Picture Approach to Problem-Solving

by Scott Aker

In this issue we are pleased to debut a new column written by Scott Aker, a nationally respected horticulturist who has spent much of his career helping gardeners prevent or solve garden problems.



O MATTER where you garden, you'll encounter challenges such as slugs eating your hostas, tender plants succumbing to early frosts, and plants suffering from improper soil pH. From my experience, the best approach to tackling issues like these is to understand the nature of the problem and then use what you know to address the root cause rather than treat the symptoms. By adopting this philosophy, you will ensure your gardening experience is not only successful but also personally rewarding. And that's the approach to garden problem solving I'm going to take in this column.

GARDENING PHILOSOPHY

My introduction to solving garden problems was trial by fire, as my first job after earning a master's degree in horticulture was a short stint with the Cooperative Extension Service in a largely suburban county outside Washington, D.C. In the course of responding to a steady stream of questions from panicked gardeners, I discovered that I really enjoyed helping them. I came to the conclusion that gardeners sometimes hold themselves to a standard that is impossibly high by attempting to duplicate the manipulated images of plants and gardens in catalogs and magazines. Often they felt discouraged because of conflicting advice they received from different sources.

While working as an Extension agent, I was introduced to, and quickly embraced, the concept of Integrated Pest Management (IPM). IPM is a logical framework for solving garden problems using a combination of prevention and control methods. That way, if one means of control isn't satisfactory, you have other ways to solve the problem. In the IPM philosophy, use of pesticides especially toxic ones—is always a last resort.

One of the major components of IPM is regularly monitoring plants so that pest, disease, or cultural problems can be identified in their early stages. This purposeful examination of the garden not only yields tremendous dividends in maintaining plant health, but can also become one of the most enjoyable and illuminating tasks a gardener does.

Whenever I help anyone with a gardening problem, I try to give them the background information—a sort of natural history lesson set in their own landscape—that allows them to see the bigger picture. Most gardeners seem to share my fascination with the intricacies of life in the garden, and realize that understanding the interaction of plants, their environment, and other living things is key to understanding how any garden works.

SCOTT AKER: THE ANSWER MAN

Scott Aker grew up in the challenging environment of the High Plains, which he describes as "a place where drought,



stony soil, and nearly constant wind made the list of easily grown plants a short one." He learned early that even the best plans don't always yield the intended results, but also that each region offers both gardening challenges and rewards. "My corner of the High Plains had its own palette of plants that thrived in its harsh climate," recalls Aker. "I still remember the tall columns of delphiniums, fra-

grant dianthus and lilacs, and irises that spread with no regard to iris borers, and I have never equaled them in the many places I have settled down long enough to garden."

Aker's peregrinations have taken him to various locations in the Midwest and the mid-Atlantic region. In addition to his work as a Cooperative Extension agent, he spent time breeding chrysanthemums at the University of Minnesota and experimented with cut flower production at the University of Maryland. He also created and implemented an IPM program at a major public garden in Washington, D.C. and has written and lectured extensively on the subject.

Aker will be answering a few gardening questions in each issue, so please send questions to saker@ahs.org or mail them to The American Gardener at the address on page 8.

UNDERSTANDING THE BIG PICTURE

In this column I intend to cover a variety of topics that will guide you to a deeper and more holistic understanding of what is going on in your garden. I want you to understand the way the whole system functions, so you can observe nature at work in your own garden, hone your gardener's instincts, and learn to use your judgment and experience to complement the gardening information you have picked up from classes, magazines, and books.

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

Gardening Q&A

PRUNING PEACHES

I have three peach trees and got my first crop of fruit last summer. How and when should I prune the trees?

Peach trees should be pruned so they branch low for ease of thinning, spraying, and harvesting the fruit. You want to aim for a trunk that is about three feet in height with four main branches arranged at the top of the trunk and growing outward from it. You should then remove all the weak branches from each of these scaffold branches, as well as any branches that are growing downward and any branches growing upright. If these scaffold branches aren't present in the right position, you may have to cut back the top portion of the trunk to stimulate branching at a lower level.

Wait to prune your trees until the buds begin to swell in spring. Early pruning may cause the trees to break dormancy too soon, resulting in a greater chance of injury from late frost.

RECALCITRANT AMARYLLIS

I received an amaryllis last Christmas and I followed the after care instructions, growing it in a large pot on the patio all summer. In September, I brought it into the basement and let it dry thoroughly. I brought it upstairs and started watering it, but it refuses to grow. What did I do wrong? Hippeastrum species that have been bred to develop the modern amaryllis are native to subtropical areas where there's a pronounced difference between warm, rainy summers and cooler, drier winters. They need about 10 weeks of temperatures around 55 degrees Fahrenheit during their dormant period. I give my bulbs some of their cold treatment by leaving them outdoors in an area sheltered from rain until threat of killing frost. I then move them to an unheated space to finish their dormant period. If you want the leaves to begin to grow at the same time the flower stalk develops, place your amaryllis in a warm location that remains a consistent 75 to 80 degrees, such as the closet that houses a hot water heater. Then, water the pot and put it where it can get strong indirect light. It sounds like you started chilling your amaryllis at the right time, but I suspect your basement just wasn't cool enough to meet the need for chilling.











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Tasty and Easy-to-Grow Parsley

by Christy Bracey

VER THE last decade, Americans have been discovering the virtues of parsley (Petroselinum crispum), which is a versatile culinary herb and tough, attractive garden plant.

Parsley belongs to the carrot family (Apiaceae), along with celery, chervil, and parsnips. Like these relatives, it is a good source of vitamin C and vitamin A, as well as beta-carotene, iron, and folic acid.

There are two major types of parsley: curly-leaf (P. crispum var. crispum) and

growing from seed ensures you have a greater choice of varieties.

Plant parsley in full sun or light shade; in regions where summers are hot, light afternoon shade is beneficial. It grows best in sandy loam, but just about any welldrained soil will do. Incorporating compost into the soil prior to planting and providing consistent moisture during the growing season will promote lush growth. Parsley also grows well in containers.

Parsley plants average 10 to 18 inches tall



Above, left: Curly-leaf parsley and marigolds make an attractive pairing in the vegetable garden. Above, right: Flat-leaf parsley, growing here with cabbage, has an assertive flavor.

Italian or flat-leaf (P. crispum var. neapolitanum). The former excels as a decorative and tasty garnish, while the latter has a more assertive flavor and is a popular ingredient in soups, stews, pesto, and salads.

GROWING GUIDELINES

Although parsley is a biennial, it is typically grown as an annual in USDA Hardiness Zone 3 to 10. It can be grown from seed or purchased as young plants, but and 12 inches wide. Their mounding shape and good looks recommend them for placement outside of the vegetable patch. The tightly crinkled leaves of the curly-leaf types make a bright green, compact border for ornamental beds, while the elegant, fernlike habit of flat leaf varieties combines well in mixed plantings of colorful annuals. Either type makes an attractive addition to a mixed container garden.

In many areas, providing some protection—such as row covering, straw mulch,

Planting Basics

GETTING STARTED

Indoors: Sow seeds eight to 10 weeks prior to the last expected frost. Soak the seeds in water overnight, then cover them lightly with seed-starting mix. Use a heat mat to speed germination. Harden off seedlings and transplant to the garden when they reach about two inches tall.

Outdoors: Sow seeds directly in the garden in spring while the weather is still cool. Cover seeds lightly with soil and keep them evenly moist.

If only a few plants are needed, they can be purchased at a garden center and transplanted in spring while the weather is still cool. Plants tolerate light frost.

SPACING

Thin seedlings to 12 to 18 inches apart when they are an inch to two inches tall. Seedlings can be transplanted as long as care is taken when digging up the long tap root.

DAYS TO MATURITY

Harvesting can begin about 70 to 80 days after sowing seed.

or a cold frame—as temperatures drop in the fall will allow harvesting throughout winter. Plants started in pots outdoors over the summer can be taken indoors for use in winter as long as a cool spot with good light is available.

In USDA Zones 5 to 11, parsley will likely survive the winter outdoors. You can continue to harvest second-year plants until they begin to flower; after flowering, the leaves are less appealing both in flavor and texture. If you let some of your plants develop flowers, they will attract beneficial insects, and seeds may self-sow, providing a source of new plants.

If parsley has an imperfection, it's slow and inconsistent germination caused by natural compounds in the seed coat. Seedlings may take 20 to 40 days to emerge, although soaking seeds prior to planting and using bottom heat helps speed germination indoors. When sowing seeds directly in the garden, keep the seed bed moist. A good practice is to mix radish seeds with parsley seeds before planting; the radish seeds sprout quickly, marking the planting site for the parsley.

PESTS AND DISEASES

Those same natural compounds that earn parsley seed its reputation for slow germination prevent competition from weeds and may deter some pests. Aphids and spider mites may still have a sip or nibble of plants as they grow, but can be controlled with sprays of soapy water. Parsley's only real nemesis is the larvae of the eastern black swallowtail butterfly. These large green and black caterpillars with bright yellow spots are hard to miss, but they can easily be hand-picked from the plants. Better yet, grow a few sacrificial plants to accommodate these beautiful butterflies.

RECOMMENDED VARIETIES

Flat-leaf varieties are my personal favorite for cooking, 'Gigante Italian' is an heirloom variety with a mellow, sweet flavor and flat, glossy leaves. For a bolder flavor, try 'Catalogno'.

In addition to serving as garnish, curlyleaf varieties add flavor and texture to salads, dips, and soups. 'Krausa' produces bright green, moderately curled leaves that are as ornamental as they are tasty. Another moderately curled variety, 'Xenon', produces uniform stems of dark green leaves; it's a good choice for containers. For densely curled leaves, try 'Sweet Curly' or 'Green River'—both vigorous varieties. If you prefer darker green, heavily curled leaves, 'Darki' is a good choice, and it tolerates low temperatures.

ENJOYING THE HARVEST

To harvest, snip leaves from the outside of the clump, cutting them at the base of the stem. Up to a third of a single, well-established plant can be harvested at any time and will stimulate new growth.

Parsley brightens and adds depth to almost any savory dish, sprinkled over veg-

Sources

The Cooks' Garden, Warminster, PA. (800) 457-9703. www.cooksgarden.com. Renee's Garden, Felton, CA. (888) 880-7228. www.reneesgarden.com. Richter's Herbs, Goodwood, Ontario, Canada. (905) 640-6677. www.richters.com.

etables and breads, blended with butter or cream cheese, or stirred into soups, stews, or pastas just before serving. It is best enjoyed fresh. Freshly cut stems will last several days if wrapped loosely in a moist paper towel and stored in a sealable plastic bag in the refrigerator.

Flat-leaf varieties are better for drying than the curly-leaf types. To dry, simply spread the leaves on a clean towel out of direct sunlight to air dry. A food dehydrator or slightly warmed oven will hasten the drying process.

Christy Bracey is a freelance writer based in Crofton, Maryland.



GARDENER'S NOTEBOOK

Horticultural News and Research Important to American Gardeners

ENLIGHTENED WAYS TO CONTROL POWDERY MILDEW

It turns out that light therapy isn't just for humans—roses suffering from powdery mildew (Podosphaera pannosa) benefit, too. A study, published in the September 2010 issue of *Plant Disease*, found that as little as one hour of red light exposure prevents mildew from making spores so it can't spread. Even though scientists aren't sure whether the light is triggering a response by the roses or in the fungus itself, this discovery corroborates similar findings of several other plants surmounting diseases through light therapy.

Another shocking development—literally—on the powdery mildew front comes out of Kinki University in Osaka, Japan. Researchers have had success with controlling this pernicious fungal disease



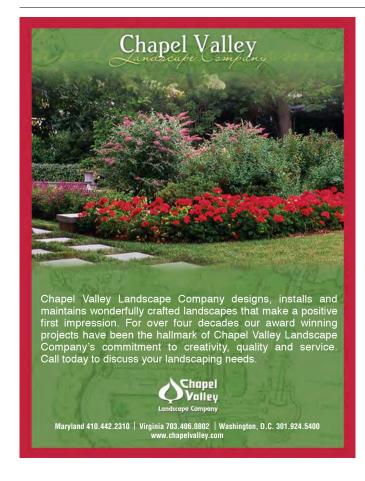
Powdery mildew (Podosphaera pannosa) affects a variety of ornamental plants.

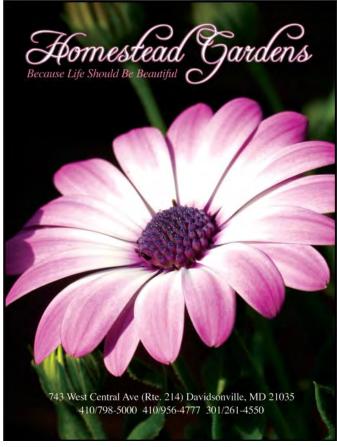
on tomatoes using weak electrical charges. A little shock therapy rid the tomatoes of the mildew, and appeared to have no detrimental effect on the plants.

BEATING BUGS WITH PLANT PHENOLOGY

Although it's common practice to apply pesticides according to the calendar, this poses a problem: there aren't many calendar-carrying bugs out there.

Researchers at Auburn University in Alabama are compiling data that will eventually lead to a revolutionary new way of fighting pesky insects. In gardens across Alabama, they're tracking the bloom phases of specific plants to see how they align with the developmental stages of certain plant pests. The end goal is to create a calendar that horticulturists and home gardeners can use to keep better track of bugs-because, in the insect world, the stages of flowering plants are much more relevant to a pest's timing than, say, whether it's Thursday or Friday.





PEOPLE and PLACES in the NEWS

Gardener's Supply Names 2010 Garden Crusader

Mike Devlin wields a trowel rather than a sword, but he's still every bit the crusader. The grand prize winner of Gardener's Supply's 2010 Garden Crusader



Award, Devlin has wielded a variety of gardening tools for over 25 years to create and maintain 90 food-producing community gardens in Camden, New Jersey.

Considered the poorest small city in the U.S., Camden is also home to the fastest growing community garden initiative in the nation—thanks in large part to Devlin. As the founder and director of Camden City Garden Club, Devlin helps city residents build gardens. He also developed the Camden Children's Garden, a four-and-a-half-acre garden overflowing with educational exhibits, and every year, through a National Gardening Association program

called Grow Lab, he helps teach gardening to hundreds of school children.

"There is plenty of land, plenty of hunger, and a real desire among residents to build gardens," says Devlin, "and we have the resources to help." To date, about 10 percent of Camden's residents receive produce that is grown in Devlin's community gardens.

Since 2001, Gardener's Supply has recognized individuals who improve their world through gardening by presenting the Garden Crusader Award. For more information about the award, visit www.gardeners.com.

New Director of U.S. National Arboretum

In December, the U.S. Department of Agriculture (USDA) named Colien Hefferan the new director of the U.S. National Arboretum. Hefferan replaces Thomas S. Elias,



who retired in December 2009. As director, Hefferan will lead a special review and assessment of the arboretum's sustainability strategies and future. "Dr. Hefferan has outstanding leadership skills and extensive outreach experience that will prove invaluable to the Arboretum," says USDA Agricultural Research Service Administrator Edward Knipling.

Hefferan first started working for the USDA in 1979. In 2000, she was appointed administrator of USDA's Cooperative State Research, Education, and Extension Service, which promotes programs that advance agriculture, the en-

vironment, and communities across the nation. Most recently she served as an advisor to the director of USDA's National Institute of Food and Agriculture.

Established by Congress in 1927, the U.S. National Arboretum comprises 440 acres and is among the world's top woody plant research facilities and public gardens. For more information about the arboretum, visit www.usnausda.gov.

The science behind this calendar is called phenology, which is the study of the cycles and seasonal changes of plants and insects, and how these are affected by climate and weather patterns. This calendar will help reduce pesticide use because less pesticide is needed if problems are detected early on.

To follow the progress of this study, visit http://ag.auburn.edu/phenology.

2011 PERENNIAL PLANT OF THE YEAR

Known by such names as Arkansas blue star and threadleaf blue star, you would think that Amsonia hubrichtii's most notable feature is its pale blue spring flowers. However, it is also prized for its golden-yellow fall color. Besides its ability to provide multiseason interest, this low-maintenance plant thrives in a variety of climates. These features have



plant-selling firms. On every continent, without salesmen. REFUSE "just as good," false, cheaply made,

unbalancing substitutes - often 991/2% water. **NOTHING IS AT ALL "LIKE" SUPERthrive®** 50 VITAMINS-HORMONES

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GREEN GARAGE® by Rita Pelczar

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

CHESTNUT TOOLS GARDEN KNEELER

If you spend much time in your garden at ground level—sowing seeds, transplanting seedlings, hand weeding—you will probably appreciate the use of this simple tool. It's a kneeler with a contour pad that is both comfortable and sturdy. The contour allows you to shift your weight between knees and shins, which helps reduce fatigue. And getting up and down is much easier using the corrosion-resistant steel frame and set-back handles that help you stand without getting in your way as you work. And it's very lightweight, something I particularly appreciate when toting it around my fairly large garden on a hot summer day. Lee Valley Tools, Ltd., www.leevalley.com.

CENTURION LOPPERS

Sharp and sturdy pruners and loppers go a long way to facilitate pruning chores, and I have found Centurion's line of tools more than up to the task. Their titanium blades stay sharp after repeated uses. And if you're like me and have trouble relocating tools after setting them down somewhere, their bright yellow handles make them easy to spot should you lose track of them. The pruners are equipped with cushioned, ergonomically designed grips to reduce strain from repetitive motion. The loppers also have cushioned handles and are available with ratcheting style cutters for extra power.

Centurion Tools, www.centurionbrands.com.

BARE GROUND SOLUTION

If you live in a cold climate, ice and snow can make getting your winter garden chores done a slippery problem. De-icing salt is effective, but can burn nearby



plants so I prefer to use Bare Ground Solution. Composed of magnesium chloride with a non-corrosive, gluten-based additive, this product is biodegradable and can be applied to sidewalks, driveways, and paths without harm to pets or plants. By preventing snow and ice from clinging to treated surfaces, it reduces snow accumulation and ice buildup that result from up to three inches of snowfall, and is effective at temperatures down to minus 20 degrees Fahrenheit. Applied as a fine spray, it remains effective for up to two weeks after application. It can be purchased with a sprayer or you can use your own sprayer.

Gardener's Supply, www.gardeners.com.

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

earned it the title of Perennial Plant of the Year for 2011 from the Perennial Plant Association (PPA). Started in 1990, the award program highlights perennials that gardeners can grow with confidence, says PPA Executive Director Steven Still.

Growing up to 36 inches tall and wide, A. hubrichtii (USDA Zones 4-9, AHS Zones 9-5) is native to Arkansas



Amsonia hubrichtii sports clusters of starshaped blue flowers in spring.

and Oklahoma. It grows best in full sun or part shade but is not picky about soil so long as it's well-drained. Deer tend to leave this plant alone, as do most insect pests and diseases. For more information about the Perennial Plant of the Year, visit www.perennialplant.org.

LOSS OF RUSSIAN SEED BANK COULD **ENDANGER WORLD'S BIODIVERSITY**

The international year of biodiversity has taken an ironic twist. In August, a Russian court took the first steps toward destroying the world's premier seed bank near St. Petersburg, Russia, to make room for a housing development.

With more than 5,000 rare varieties of fruits and berries in its collection, the Pavlovsk Experimental Station makes an invaluable contribution to global plant diversity. Ninety percent of the seed bank's varieties are found nowhere else on earth. The collection is also unique because it is primarily a field collection, so most of these rare seeds are preserved by being grown in fields. As a result, moving the seed bank is particularly difficult because it would entail transplanting actual plants.

In addition to its collection, the Pavlovsk Experimental Station has historic value, being founded in 1926 by Nikolai

Vavilov, a Russian horticulturist. When the German army besieged Leningrad during World War II, a dozen Soviet scientists saved the plants and seeds for posterity, but starved to death in the process.

To help save the Pavlovsk Experimental Station and to learn more, visit www.fooddemocracynow.org.

RAIN GARDENS TO THE RESCUE

When all else fails to clean up a polluted neighborhood lake, plant a garden. That's what residents of the Powderhorn neighborhood of Minneapolis have discovered, thanks to Metro Blooms. This Minneapolis-based nonprofit organization helps to beautify the city and protect the environment through gardening. Over the past year, it has helped the Powderhorn community install 122 rain gardens, with a goal of planting 250 by 2012. Rain gardens are designed to capture and absorb rain water, reducing the amount of fertilizer, oil, and other pollutants that get washed into waterways after a storm.

For this community, stormwater runoff resulted in excess phosphorus, sediment,



As part of the Metro Blooms program, a team of student volunteers plants a rain garden.

and other debris polluting Powderhorn Lake to the point that it could no longer be used for recreational activities such as swimming or fishing. While Metro Blooms is working on quantifying the positive environmental impact these rain gardens are having, Becky Rice, the organization's executive director, says the project is certainly making an educational impact. "We've seen an increase in the residents' awareness of their environmental influence," she says. "They're realizing that

what they do in their yards impacts their water quality."

For more information about Metro Blooms and the rain garden project, visit www.metroblooms.org.

NEW SUSTAINABLE GARDENING RESOURCE

The United States Botanic Garden and the Lady Bird Johnson Wildflower Center have recently teamed up to launch Landscapes for Life, an online resource designed to help gardeners work with and support the environment. This resource is based on the Sustainable Sites Initiative, the nation's first rating system for sustainable landscapes, also jointly developed by the USBG and the Wildflower Center with several other partnering organizations. Currently in its inaugural stage, this website will provide a fully developed curriculum by this spring. For now, www.landscapeforlife.org offers a downloadable workbook on getting started with sustainable landscape practices and lots of useful earth-friendly garden advice.

Written by Editorial Intern Patrick Morgan.







Recommendations for Your Gardening Library

The Encyclopedia of Container Plants

Ray Rogers, photography by Rob Cardillo. Timber Press, Portland, Oregon, 2010. 344 pages. Publisher's price, hardcover: \$34.95.

Continuous Container Gardens

Sara Begg Townsend and Roanne Robbins. Storey Publishing, North Adams, Massachusetts, 2011. 270 pages. Publisher's price, softcover: \$19.95.

THE WELL-DESIGNED and hard-working container garden has wooed and wowed gardeners for many reasons, including its suitability for smaller living spaces and low-maintenance environments. Indeed, the countless new varieties of dwarf plants and huge selection of unique containers at garden centers should also be credited with the ever-expanding potted landscape.

To start planning your container gardens for spring, here are two inspiring new books to mine for ideas.

The Encyclopedia of Container Plants by Ray Rogers with photography by Rob Cardillo is exactly what it promises. This



is the go-to reference for plants that play well with pots. The book opens with ideas for container groupings and design styles. That's followed by an extensive tour of more than 500 outstanding plants to grow in containers.

In addition to providing basic growing details, the text for each plant zeroes in on what many designers and home gardeners really wish to know: What are the

plant's aesthetic attributes? A seasoned veteran of container design, Rogers addresses flower and foliage palette, line, form, space, and texture. I particularly appreciate his conversational tone and first-hand examples of growing each plant. Cardillo's excellent images illustrate plant details and examples of how plants are used in the container. This is the book to buy when you find yourself bored with growing the same old container plants year after year.

Continuous Container Gardens by Sara Begg Townsend and



Roanne Robbins offers a clever and playful approach to the year-round container. The book features "planting recipes" for 12 themed designs and suggestions for updating them, season by season. The authors give each project an entertaining title, such as "Cool Bark" or "Very Berried," which empha-

sizes the main color or texture that unifies the design through the different seasons.

For example, the "Purple Deluxe" design features purple foliage plants and their complementary accents. There's a "backbone plant," a dark-twig Japanese maple called 'Bloodgood' that remains in the container year-round. In spring, the bare-branched Japanese maple shares the stage with black mondo grass, 'Palace Purple' heuchera, pansies, and tricolored garden sage. By summer, weeping brown sedge and Microbiota decussata are added to the pot. In the autumn, cranberry cotoneaster lends a seasonal touch. And an array of gold and silver conifers replaces the perennials and sedge for a sparkly winter display.

The recipes and project ideas will jump-start your own designs and change how you view the "year-round" potted garden. This is a great guide for beginners or anyone stuck in a container rut, offering all the advice needed for successful and eye-catching container gardens.

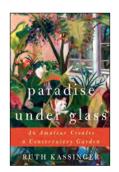
—Debra Prinzing

Debra Prinzing is a Seattle- and Los Angeles-based outdoor living expert. Her next book is A Fresh Bouquet: Seasonal, Local, and Sustainable Flowers (www.afreshbouquet.com).

Paradise Under Glass

Ruth Kassinger. William Morrow, New York, New York, 2010. 347 pages. Publisher's price, hardcover: \$24.99.

GARDENERS KNOW WELL how an obsession can grow—orchid collections, auricula theaters, stumperies—they begin to



take over our lives. In this gardening memoir, Ruth Kassinger, a self-confessed non-gardener, tells her story of falling for gardening—in particular, falling for exotic beauties that must live in a specially built environment of their own.

Changes in her life, her sister's death, and her own illness set Kassinger on the path to plants. "Warm and humid, beautiful, ever-green, peaceful and still, a conservatory would be the perfect antidote to

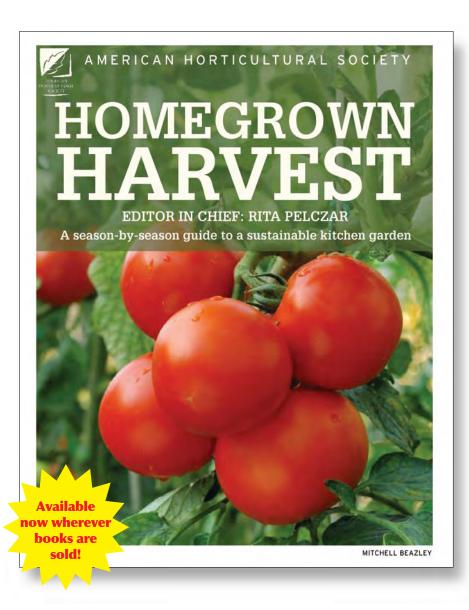
the losses and changes of middle age," she writes in the introduction. "It would be my personal tropical paradise where nothing unexpected lurked in the landscape."

This idea floated around in her mind until the moment Kassinger saw her one houseplant, rescued from years of neglect, begin to bloom after she makes an effort to save it. Then she "got serious." The book chronicles the decisions she made and the plants she chose to make her conservatory dream a reality.

This is no how-to book, but a celebration of conservatories in all their guises, and the plants that inhabit them. Kassinger

NEW from the American Horticultural Society

A season-by-season guide to a sustainable kitchen garden



HOW AND WHEN TO GROW EVERYTHING YOU WANT IN YOUR OWN KITCHEN GARDEN

- Advice on planning, setting up, and designing your garden
- Expert, earth-friendly techniques for successfully growing and harvesting herbs, fruits, and vegetables
- Suggestions on the best crop varieties for different regions
- A season-by-season guide for bringing the freshest fruits, herbs, and vegetables from garden to plate

To view an excerpt from the book, visit www.ahs.org.



Here's what the reviewers are saying:

The book's sumptuous tone, instructive photographs, and detailed directions should give beginning gardeners the enthusiasm and confidence to get started and organizationally challenged old-timers a sigh of relief that they won't have to figure out what to do next.

—Publisher's Weekly

The American Horticultural Society's experts cover a wide selection of practices to help create the healthiest, biggest, tastiest fruits and vegetables, with photographs illustrating how to plant and harvest. The seasonal format is a guide within a guide.

—Joel M. Lerner, The Washington Post

Homegrown Harvest walks you through the ins and outs of edible gardening thoroughly and clearly. You'll return to it again and again.

-Kym Pokorny, The Oregonian



ALSO INCLUDES...

- Handy charts that tell you when to sow seeds and harvest different vegetables
- Resource list and glossary
- More than 300 color photographs throughout

Hardcover, \$32.50

304 pages

may begin a chapter with the simple tale of buying a potted calamondin, but soon you are wandering with her through centuries of citrus and their journey from Asia to the gardens of Italy, up to France and into the reign of King James I of England, who created a special house for his orange trees.

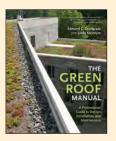
More recent horticultural history is told, such as when a search for colorful plants leads her to Logee's Greenhouses, a tropical-plant supplier; still, it's the history long past that I enjoyed the most: Joseph Paxton's Crystal Palace, the pteridomania (fern frenzy) that struck Victorian women, early plant hunters, and Wardian cases—all neatly tied to Kassinger's personal story.

I had only two small problems with the book. First, the bibliography needs notes to accompany the alphabetical listing by author; a reader who wants to know more about the Crystal Palace will not know to look under Piggott, J.R., for *Palace of the People*, but instead would want to look in an annotated bibliography or one arranged by subject to find more. Second, even the most entertaining nonfiction book needs an index—how else can you quickly get back to the page with the story about the first pineapple to set fruit in Europe? (It was in 1687, by the way.) Otherwise, this is a well-written and enjoyable read that might just have you dreaming of your own paradise under glass.

—Marty Wingate

Marty Wingate writes and speaks about gardens and travel, leading tours to American and European destinations. Visit her at www.martywingate.com.

Green roofs have become increasingly popular in the United States over the last decade because of their ability to mitigate



urban issues such as heat island effects and stormwater management. However, creating successful ones involves many variables. *The Green Roof Manual* by Edmund Snodgrass and Linda McIntyre (Timber Press, 2010, \$39.95) seeks to define and describe these variables in the context of the still nascent North American green roof industry. "More

green roofs in more places," explain the authors in the introduction, "have added breadth as well as depth to what we know about how this technology, mature in Europe but less tested in our more variable climate and more freewheeling regulatory and building cultures, performs in North America." This well-researched book gathers up the current body of knowledge, covering topics such as green roof anatomy, the design and build process, and maintenance considerations, and presents it through clear prose and more than 200 color photographs. The extensive bibliography is a testament to how thoroughly the authors know their subject, and there also is a lengthy list of resources for further information. Anyone involved with and interested in green roofs would be well advised to acquire this indispensible reference. —Viveka Neveln, Associate Editor



GARDENER'S BOOKS

Books for Finding Your Inner Landscape Designer

O YOU FIND yourself mentally re-doing your home landscape—or your neighbor's—each time you drive by? Or do you wish you could have a well designed garden but just don't know where to start? Tucked within the covers of these recently published books, you'll find practical information, insightful references, and inspiring ideas to help you draw up those stellar garden plans you've been fantasizing about.

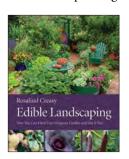
Understanding Garden Design: The Complete Handbook for Aspiring Designers (Timber Press, 2010, \$34.95) provides a



thorough overview of the design process. As a former interior designer turned professional landscape designer, Vanessa Gardner Nagel presents a concise introduction to garden design from site documentation to irrigation concepts, but her real focus is the artistic approach to garden design. Nagel's advice centers around color, form, and texture in garden design, plant selection, and orna-

mentation. Drawings offer practical design considerations—like where to place the hammock in relation to the grill and the trash cans—while photographs of playful and colorful design elements offer innovative design ideas.

If you are going to spend significant time and money on a new landscape design, why not plan to have your garden and

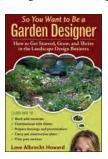


eat it too? Revised from the 1982 original, *Edible Landscaping* by Rosalind Creasy (Sierra Club Books, 2010, \$39.95) challenges the "unwritten law against planting vegetables in a suburban front yard" with beautiful designs the neighbors will appreciate. The book's first half deals with the "howtos" and other practical considerations for your garden plan. The second half

of the book is an encyclopedia of more than 75 edible plants and their kitchen and landscape uses. Here you can find detailed information such as how to eat a pawpaw, which crops need at least two plants for pollination, and how to process pomegranates without "leaving the kitchen looking like the set of a bad 'slasher' movie." With more than 165 additional edibles in the "Big List of Edible Plants" appendix, even picky eaters in tough climates will find something tasty to plant in the front yard.

Perhaps you aspire to more than just designing your own garden. So You Want to Be a Garden Designer: How to Get Started, Grow, and Thrive in the Landscape Design Business (Timber Press, 2010, \$29.95) provides a thorough, practi-

cal, and encouraging guide to becoming a professional garden designer. Drawing from her own experience, Love Albrecht



Howard begins by describing the skills and knowledge needed to go from passionate gardener to successful garden designer. Subsequent chapters cover the basic principles of sound garden design and how to run a small business. Howard often uses humorous anecdotes to present techniques for dealing with clients and subcontractors, preparing designs, and essentially how to handle the unexpected,

which Howard says you should expect in this business!

One way to gain a better understanding of a craft is to learn about its historical roots. To that end, art historian Therese



O'Malley has compiled *Keywords in Landscape Design* (Yale University Press, 2010, \$125). This enormous, 700-page-plus tome digs into the history of American landscape design by way of the terms and concepts used to describe landscape features. One hundred terms from the early Colonial period (1600s) to the mid-19th century are defined and explored through

primary sources—excerpts from letters, period drawings, plans, and periodicals, all accompanied by more than 1,000 images. So if you want to know the difference between an arbor and a bower, or if you are curious what Ralph Waldo Emerson and Thomas Jefferson had to say about hedges, this book delivers.

In *Best Garden Design* (RHS/Firefly Books, 2010, \$35) garden designer Chris Young has amassed a photographic treasure



trove depicting garden spaces created exclusively for the Royal Horticultural Society's Chelsea Flower Show from 2004 to 2009. This book brims with unique design ideas for any garden—large or small, urban or rural, formal or whimsical, royal or pedestrian. Chapters cover specific garden elements, such as planting, sustainability, and lighting. Each page features

beautiful photos from the show gardens with captions describing how the design elements work. Illuminating case studies at the end of each chapter deconstruct the successful elements of award-winning designs.

—Caroline Bentley

Garden writer Caroline Bentley has big plans for redesigning her garden in Alexandria, Virginia, this spring.

REGIONAL HAPPENINGS

Horticultural Events from Around the Country

NORTHEAST

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

RAP JAN. 30. Native Vines for the Home Garden. Class. New England Wild Flower Society. Blithewold Mansion, Gardens & Arboretum. Bristol, Rhode Island. (401) 253-2707. www.blithewold.org.

RAP FEB. 1. Native Groundcovers. Class. Garden in the Woods. New England Wild Flower Society. Framingham, Massachusetts. (508) 877-7630. www.newenglandwild.org.

RAP FEB. 7. Restoring Hawaii's Marvels of **Evolution.** Talk. Arnold Arboretum. Boston, Massachusetts. (617) 524-1718. www.arboretum.harvard.edu.

- * FEB. 24-27. 19th Annual Rhode Island Spring Flower & Garden Show. Rhode Island Convention Center. Providence, Rhode Island. (401) 272-0980. www.flowershow.com.
- FEB. 24-27. 30th Annual Connecticut Flower & Garden Show. Connecticut Convention Center. Hartford, Connecticut. (860) 844-8461. www.ctflowershow.com.

RAP FEB. 26 & 27. Orchid Show. The Niagara Frontier Orchid Society & The Gardens. The Buffalo and Erie County Botanical Gardens. Buffalo, New York. (716) 827-1584. www.buffalogardens.com.

MAR. 3-6. CNY Blooms Flower & Garden Show. Oncenter Complex. Syracuse, New York. (800) 979-1879. www.cnyblooms.com.

MID-ATLANTIC

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

JAN. 23. New Goosebump Plants. Lecture. Swarthmore College. Swarthmore, Pennsylvania. (610) 328-8023. www.scottarboretum.org.

JAN. 23-28. North American Gladiolus Council Convention. Crown Plaza Hotel. Pittsburgh, Pennsylvania. (269) 731-4259. www.gladworld.org.

JAN. 25 & 26. NJ PLANTS. Nurserv. Landscape and Garden Center Trade Show. New Jersey Convention Center. Edison, New Jersey. (800) 332-3976. www.macevents.com.

Flower and garden shows that offer free or discounted admission to AHS members or present AHS awards are designated by a 🛞 symbol. For details on the specific benefits offered, visit www.ahs.org/events/index.htm and click on "Flower and Home and Garden Shows."

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

JAN. 29. Enhance Your Winter Landscape. Lecture. Mt. Cuba Center. Greenville, Delaware. (302) 239-4244. www.mtcubacenter.org.

※ FEB. 10–13. Maymont Flower & Garden Show. Greater Richmond Convention Center. Richmond, Virginia. (804) 358-7166. www.maymont.org.

FEB. 17. Creative Approaches for Ecological Landscaping. Land Ethics Symposium. Bowman's Hill Wildflower Preserve. Langhorne, Pennsylvania. (215) 862-2924. www.bhwp.org.

REB. 17-20. New Jersey Flower & Garden Show. New Jersey Convention Center. Edison, New Jersey. (732) 449-4004. www.njflowershow.com.

FEB. 25. Green Matters 2011: The Real Food Renaissance. Symposium. Brookside Gardens. Wheaton, Maryland. (301) 962-1400. www.brooksidegardens.org.

- MAR. 4-6. Mid-Atlantic Home & Flower **Show.** Virginia Beach Convention Center. Virginia Beach, Virginia. (757) 523-4737. www.midatlantichomeandflowershow.com.
- **MAR.** 6-13. **Philadelphia International** Flower Show "Springtime in Paris." The Pennsylvania Horticultural Society. Pennsylvania Convention Center. Philadelphia, Pennsylvania. (215) 988-8826. www.phsonline.org.

SOUTHEAST

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

JAN. 28–30. 25th Annual Southern Gardening Symposium. Callaway Gardens. Pine Mountain, Georgia. (706) 663-5187. www.callawaygardens.com.

RAP FEB. 1. The Meaning of Flowers. Class. Daniel Stowe Botanical Garden. Belmont, North Carolina. (704) 825-4490. www.dsbg.org.

FEB. 2. Teaching about the 'Green Plant Blues.' Workshop. The Endangered Plant Stewardship Network. The State Botanical Garden of Georgia. Athens, Georgia. (706) 542-1244. www.uga.edu/botgarden.

FEB. 5. Perennial Plant Symposium: The Pleasure Garden. Atlanta Botanical Garden. Atlanta, Georgia. (404) 876-5859. www.atlantabotanicalgarden.org.

* FEB. 25-27. Southeastern Flower Show. Cobb Galleria Centre. Atlanta, Georgia. (404) 351-1074. www.sehort.org.

MAR. 1. Davidson Horticultural Symposium. The Davidson Garden Club, Davidson College. Davidson, North Carolina. (704) 604-6618. www.davidsonsymposium.org.

※ MAR. 3–6. **Nashville Lawn & Garden** Show. Tennessee State Fairgrounds, Nashville, Tennessee. (615) 876-7680. www.nashvillelawnandgardenshow.com.

MAR. 19 & 20. Jacksonville Orchid Show. Garden Club of Jacksonville. Jacksonville, Florida. (904) 307-4557. www.jaxorchidsociety.org.

MAR. 24-27. Plant Fair and Sale. Callaway Gardens. Pine Mountain, Georgia. (706) 663-5187. www.callawaygardens.com.

NORTH CENTRAL

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

RAP JAN. 4-MAR. 21. Chocolate: The Bitter and the Sweet. Exhibit. Olbrich Botanical Gardens. Madison, Wisconsin. (608) 246-4550. www.olbrich.org.

JAN. 24-26. Central Environmental Nursery Trade Show. Ohio Landscape & Nursery Association. Columbus, Ohio. (614) 899-1195. www.onla.org.

RAP JAN. 29. Gumballs and Superballs: Discover Rainforest Plants. Class. Chicago Botanic Garden. Glencoe, Illinois. (847) 835-5440. www.chicagobotanic.org.

RAP FEB. 2. Lunch and Learn: Landscape Styles in a Nutshell. Morton Arboretum. Lisle, Illinois. (630) 725-2103. www.mortonarb.org.

RAP FEB. 5. Sustainability Symposium 2011: Healing Spaces. Cleveland Botanical Gardens. Cleveland, Ohio. (216) 721-1600. www.cbgarden.org.

RAP FEB. 26. Nature Photography Workshop. Foellinger-Freimann Botanical Conservatory. Fort Wayne, Indiana. (260) 427-6440. www.botanicalconservatory.org.

FEB. 26-MAR. 6. Central Ohio Home & Garden Show. Ohio Expo Center. Columbus, Ohio. (614) 461-5257. www.dispatchevents. com/home_garden.php.

 ★ MAR. 3–6. Fort Wayne Home & Garden Show. Allen County Memorial Coliseum. Fort Wayne, Indiana. (260) 432-1705. www.home-gardenshow.com.

SOUTH CENTRAL

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

RAP FEB. 10. Four Seasons in the Garden Workshop. Garvan Woodland Gardens. Hot Springs National Park, Arkansas. (501) 262-9300. www.garvangardens.org.

RAP FEB. 19. St. Louis Garden Blitz: The Edible Revolution. Seminars and demonstrations. Missouri Botanical Garden. St. Louis, Missouri. (636) 812-2333. www.mobot.org.

FEB. 25–27. All Texas Garden Show. Arlington Convention Center. Arlington, Texas. (817) 459-5000. www.texashomeandgarden.com.

* FEB. 25-27. 20th Annual Arkansas Flower & Garden Show. Statehouse Convention Center. Little Rock, Arkansas. (501) 821-4000. www.arflowerandgardenshow.org.

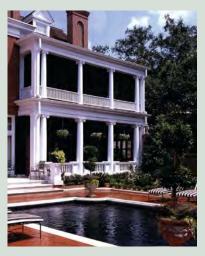
MAR. 2-6. Wichita Garden Show. Century II Civic Center. Wichita, Kansas. (316) 946-0883. www.wichitagardenshow.com.

MAR. 4-6. 32nd Annual Dallas Home & Garden Show. Dallas Market Hall. Dallas, Texas. (214) 655-6100. www.texashomeandgarden.com.

MAR. 11-13. ADS Convention and Show. American Daffodil Society. Jackson, Mississippi. (478) 783-2153. www.daffodilusa.org.

MAR. 18-20. 12th Annual Fort Worth Home

Savannah Tour of Homes and Gardens



Fine gardens and architecture will be on view for the 76th home tour.

DURING THE 76th Annual Savannah Tour of Homes and Gardens, you can roam the halls of some of Savannah's most beautiful private residences. From March 24 to 27, guests have the rare opportunity to visit these stately homes and gardens in the Historic Landmark District and Ardsley Park areas of Savannah,

Started in 1935 to raise charitable funds during the Great Depression, this annual event is presented by Women of Christ Church and the Historic Savannah Foundation. Visitors are invited to take self-guided walking tours of four to six different homes each day. "What sets us apart from most of the tours in town," says Katherine Albert, executive director of Savannah Tour of Homes and Gardens, "is that one, we're the oldest, and two, every single dime we make goes back into the community." All proceeds benefit preservation projects and charita-

ble organizations, such as Habitat for Humanity.

And if relishing some of the finest examples of southern gardening alongside Savannah's elaborate architecture isn't enough, the tours are complemented by many special events such as interactive history tours and gardening seminars.

For additional information or to purchase tickets, call (912) 234-8054 or visit www.savannahtourofhomes.org.

Grand Opening of Bookworm Gardens

TO MANY visitors, Bookworm Gardens will feel like a page straight out of a fairytale and that's because it is. Since its grand opening last October, this two-and-a-half-acre garden in Sheboygan, Wisconsin, has dazzled children and adults alike with its representation

of more than 70 popular children's books.

The culmination of over a decade of planning and fundraising, Bookworm Gardens is divided into several themed gardens that incorporate buildings, plants, and objects from beloved books such as Winnie the Pooh, Where the Wild Things Are, and Cloudy with a Chance of Meatballs. You—or the kids you are with can read the Magic Tree House series in an actual tree house or say hello to the fish in Dr. Seuss's McElligot's Pool. In addition, a Hansel and Gretel-inspired building provides space for classes and book readings.

"It's the physical elements in the garden that help bring the books to life for children," says Debra Denzer, executive director of Bookworm Gardens, a non-profit organization. "And the great thing is that all of the



Children enjoy Mr. McGregor's Garden from the story of Peter Rabbit.

books featured in the gardens are available for visitors to read at no charge—they're laminated and placed right into the gardens themselves." The staff at Bookworm Gardens firmly believe that every child should have the opportunity to read, which is why the gardens provide free admission to everyone.

To learn more about the gardens, which are open from dawn to dusk year-round, call (920) 287-7895 or visit www.bookwormgardens.org.

–Patrick Morgan, Editorial Intern



ENGRAVED BOTANICAL PLANT LABELS

PLANT IDENTIFICATION FOR EVERY GARDEN Order @ www.gardenmarkers.com FAX: 434-975-1627 PLANT LABELS - STAKES - TREE TACKS

To advertise in The American Gardener, call (703) 768-5700 ext. 120 or e-mail advertising@ahs.org.



Show. Fort Worth, Texas. (817) 392-7469. www.texashomeandgarden.com.

RAP MAR. 5-APR. 10. Dallas Blooms. Floral festival, Dallas Arboretum, Dallas, Texas. (214) 515-6500. www.dallasarboretum.org.

SOUTHWEST

AZ, NM, CO, UT

FEB. 5. From Garden to Kitchen. Class. Tucson Botanical Gardens, Tucson, Arizona, (520) 326-9686. www.tucsonbotanical.org.

RAP FEB. 24. 26 & MAR. 3. Fabulous Fruit Trees. Class. Red Butte Garden. Salt Lake City, Utah. (801) 587-5433. www.redbuttegarden.org.

FEB. 24 & 25. Water Conservation & Xeriscape Conference. Xeriscape Council of New Mexico. Albuquerque, New Mexico. (505) 468-1021. www.xeriscapenm.com.

MAR. 2-4. Collections and Design: Power to the Plants Symposium. American Public Gardens Association. Desert Botanical Garden. Phoenix, Arizona. (610) 708-3010. www.publicgardens.org.

※ MAR. 4-6. Maricopa County Home Show— Southwest Flower & Garden Experience. University of Phoenix Stadium. Phoenix, Arizona. (602) 485-1691. www.maricopa countyhomeshows.com.

WEST COAST

CA. NV. HI

JAN. 20. Botanical Art Through the Ages. Lecture. University of California Botanical Garden at Berkeley. Berkeley, California. (510) 643-2755. E-mail: garden@berkeley.edu.

RAP FEB. 5. Things to Do With Camellia sinensis. Class. Descanso Gardens. La Cañada Flintridge, California. (818) 949-7980. www.descansogardens.org.

RAP FEB. 7. 14. 21. 28. Exercise for People Who Love to Garden. Class. South Coast Botanic Garden Foundation. Palos Verdes Peninsula, California. (310) 544-1948. www.southcoastbotanicgarden.org.

RAP FEB. 9. Guided Tour. University of California Davis Arboretum. Davis, California. (530) 752-4880. http://arboretum. ucdavis.edu.

FEB. 10. Early Gardens of Los Angeles. Lecture. Southern California Horticultural Society. Los Angeles, California. (818) 567-1496. www.socalhort.org.

FEB. 17. Plant Introduction Tour. Springs

Preserve. Las Vegas, Nevada. (702) 822-7700. www.springspreserve.org.

FEB. 17. Sprouting a New Awareness: NorCal Spring Trade Show. San Mateo Expo Center. San Mateo, California. (530) 458-3190. www.norcaltradeshow.org.

Looking ahead

APR. 7-10. California State Flower, Food & Garden Show. Cal Expo Pavilion Building. Sacramento, California. (877) 696-6668, ext. 4. www.calstategardenshow.com.

NORTHWEST

AK, ID, MT, OR, WA, WY

JAN. 29 & 30. An Introduction to Botanical Art. Workshop. Center for Urban Horticulture. University of Washington Botanic Gardens. Seattle, Washington. (206) 543-8616. http://depts.washington.edu/uwbg.

* FEB. 23–27. Northwest Flower & Garden **Show.** Washington State Convention Center. Seattle, Washington. (800) 596-2832. www.gardenshow.com.

MAR. 5 & 6. Bamboo Fence Building Workshop. Portland Japanese Garden. Portland, Oregon. (503) 223-1321. www.japanesegarden.com.

RAP MAR. 12. 5th Annual Spring Garden Conference. Alaska Botanical Garden. Anchorage, Alaska. (907) 770-3692. www.alaskabg.org.

Looking ahead

RAP APR. 14. Organic Gardening Primer Class. Lakewold Gardens. Lakewood, Washington. (253) 584-4106 ext. 109. www.lakewoldgardens.org.

CANADA

RAP FEB. 10 & 17. Indoor Plants. Class. Toronto Botanical Garden. Toronto, Ontario. (416) 397-1340. www.torontobotanical garden.ca.

FEB. 17-APR. 25. Butterflies Go Free. Exhibition. Montréal Botanical Garden. Main Exhibition Greenhouse. Montréal, Québec. (514) 872-1400. www2.ville.montreal.qc.ca/jardin.

MAR. 16-20. 15th Anniversary Canada Blooms Festival. Flower show. Direct Energy Centre. Toronto, Ontario. (416) 447-8655. www.canadablooms.com.

RAP MAR. 20. Rock & Alpine Gardening: An Introduction. Class. Glendale Gardens & Woodland. Victoria, British Columbia. (250) 479-6162. www.glendalegardens.ca.

2011 AHS Seed Exchange

More than 200 kinds of seeds are offered in this year's Seed Exchange, available only to American Horticultural Society members. For a quick reference, here is the list of seeds to choose from, with an order form on the following page. To see the full catalog, visit www.ahs.org and click on the Seed Exchange link. If you prefer to receive a printed copy of the catalog, please send a self-addressed stamped legalsize envelope to us at Seed Exchange Catalog, 7931 East Boulevard Drive, Alexandria, VA 22308.

ANNUALS

- 1 Abelmoschus manihot
- 2 Amaranthus cruentus
- 3 Amaranthus tricolor 'Cinco de Mayo'
- 4 Ammi maius
- 5 Asclepias curassavica
- 6 Asclepias curassavica 'Bright Wings'
- 7 Begonia semperflorens
- 8 Rupleurum rotundifolium
- 9 Calendula officinalis
- 10 Calendula officinalis 'Flashback'
- 11 Calendula officinalis 'Pacific Beauty
- 12 Celosia argentea var. cristata (red)
- 13 Celosia argentea var. cristata (lemon-lime)
- 14 Centratherum intermedium
- 15 Cerinthe sp. mix
- 16 Clarkia elegans
- 17 Cleome hassleriana (pink and purple)
- 18 Cleome hassleriana (purple)
- 19 Cleome hassleriana (white)
- 20 Cleome hassleriana 'Colour Fountain'
- 21 Cleome hassleriana 'Violet Queen'
- 22 Cosmos bipinnatus (maroon and white)
- 23 Cosmos bipinnatus 'Sensation Mix'
- 24 Cosmos sulphureus
- 25 Datura innoxia
- 26 Datura metel (purple)
- 27 Datura metel (pale purple-white)
- 28 Eschscholzia californica
- 29 Gomphrena haageana
- 30 Helianthus annuus mix
- 31 Helianthus annuus 'Bright Bandolier'
- 32 Helianthus annuus 'Junior'
- 33 Helianthus annuus 'Red Sun'
- 34 Helianthus annuus 'The Joker'
- 35 Helianthus annuus 'Valentine'
- 36 Impatiens balsamina *
- 37 Impatiens walleriana
- 38 Lavatera trimestris 'Dwarf White Cherub'
- 39 Mimulus ×hybridus *
- 40 Mirabilis jalapa (mixed colors)
- 41 Mirabilis jalapa (magenta)
- 42 Mirabilis jalapa (red)
- 43 Mirabilis jalapa 'Broken Colors'
- 44 Moluccella laevis
- 45 Nicotiana alata
- 46 Nicotiana lansdorfii
- 47 Nigella damascena
- 48 Nigella damascena 'Bridal Veil'
- 49 Nigella damascena and Nigella hispanica mix
- 50 Papaver rhoeas
- **51** Papaver somniferum (mixed colors)
- 52 Papaver somniferum 'Lauren's Grape'
- 53 Petunia axillaris

- 55 Salvia coccinea 'Cherry Blossom'
- 54 Rudbeckia hirta
- 56 Scabiosa atropurpurea 'Ace of Spades'
- 57 Tagetes erecta 'Crackerjack'
- 58 Tagetes patula mix
- 59 Tagetes patula 'Petite' mix
- 60 Tagetes tenuifolia 'Starfire'
- 61 Talinum paniculatum

- 62 Tropaeolum majus 'Summer Charm'
- 63 Zinnia sp.
- 64 Zinnia elegans 'Blue Point' mix
- 65 Zinnia elegans Lilliput series
- 66 Zinnia marylandica
- 67 Zinnia pauciflora

HERBACEOUS PERENNIALS, **BIENNIALS & GRASSES**

- 68 Alcea rosea (white)
- 69 Alcea rosea (pink)
- 70 Alcea rosea 'Indian Spring' mix
- 71 Alcea rosea 'Indian Summer' mix
- 72 Amsonia tabernaemontana
- 73 Anemone virginiana
- 74 Anomatheca laxa *
- 75 Aquilegia chrysantha
- **76** Aquilegia hybrid
- 77 Aquilegia sp. (orange)
- 78 Aquilegia sp. (mixed colors)
- 79 Asclepias syriaca
- 80 Asclepias tuberosa
- 81 Aster × frikartii 'Monch'
- 82 Astrantia major
- 83 Athyrium niponicum var. pictum
- 84 Baptisia alba var. macrophylla
- 85 Baptisia australis
- 86 Belamcanda chinensis
- 87 Callirhoe digitata
- 88 Campanula persicifolia 'Alba'
- 89 Chasmanthium latifolium
- 90 Chelone glabra
- 91 Coreopsis lanceolata 'Sunburst'
- 92 Corydalis ochroleuca
- 93 Crocosmia 'Lucifer'
- 94 Cynara cardunculus
- 95 Dianthus barbatus
- 96 Dianthus deltoides 'Arctic Fire'
- 97 Dictamnus albus *
- 98 Dictamnus albus var. purpureus
- 99 Digitalis lanata 100 Digitalis lutea
- 101 Digitalis purpurea (mixed colors)
- 102 Digitalis purpurea (purple and white)
- 103 Digitalis purpurea 'Excelsior' mix
- 104 Dryopteris goldieana *
- 105 Echinacea purpurea
- 106 Echinops bannaticus
- 107 Echinops ritro
- 108 Erodium manescaui 109 Eryngium amethystinum
- 110 Eryngium maritimum
- 111 Eryngium planum
- 112 Eupatorium 'Gateway'*
- 113 Gaillardia sp.
- 114 Gaillardia 'Fanfare'
- 115 Gaillardia ×grandiflora
- 116 Glaucidium palmatum (pink)
- 117 Glaucidium palmatum (pale pink) *
- 118 Glaucidium palmatum 'Album' *
- 119 Glaucium flavum 120 Helenium autumnale
- 121 Hemerocallis sp.
- 122 Heuchera villosa
- 123 Hibiscus coccineus

- 124 Hibiscus moscheutos
- 125 Hibiscus moscheutos subsp. palustris
- 126 Hibiscus syriacus
- 127 Hosta sp. (green foliage)
- 128 Hosta sp. (blue foliage)
- 129 Hosta sp. (dwarf)
- 130 Inula orientalis 131 Iris sibirica
- 132 Lagurus ovatus
- 133 Leucanthemum × superbum
- 134 Ligularia stenocephala 'The Rocket'
- 135 Lilium formosanum
- 136 Lilium martagon *
- 137 Linum usitatissimum
- 138 Lobelia cardinalis 139 Lunaria annua
- 140 Lupinus sp.
- 141 Lychnis chalcedonica 'Rosea'
- 142 Lychnis coronaria
- 143 Myosotis sylvatica 'Blue Bird'
- 144 Oenothera glazioviana
- 145 Papaver nudicaule
- 146 Papaver orientale
- 147 Penstemon digitalis 'Mystica'
- 148 Penstemon × mexicali 'Red Rocks'
- 149 Penstemon pseudospectabilis 150 Sanguisorba canadensis
- 151 Scabiosa 'Beaujolais Bonnets'
- 152 Silphium perfoliatum 153 Tanacetum coccineum 'Robinson's
- Red'
- 154 Telekia speciosa 155 Thalictrum rochebrunianum *
- 156 Verbascum chaixii
- 157 Verbena bonariensis 158 Zizia aurea

- **TREES & SHRUBS**
- 159 Abutilon palmeri
- 160 Baccharis halimifolia
- 161 Caragana arborescens
- 162 Cercis canadensis 163 Cornus racemosa
- 164 Eucommia ulmoides
- 165 Firmiana simplex *
- 166 Magnolia ×loebneri 'Ballerina' ★ 167 Magnolia stellata *
- 168 Pavonia lasiopetala
- 169 Prunus umbellata 170 Radermachera sinica
- 171 Rosa 'Complicata'
- 172 Tetradium daniellii * 173 Ungnadia speciosa
- **VINES** 174 Cardiospermum halicacabum
- 175 Clematis crispa 176 Clematis fusca
- 177 Heteropterys glabra 178 Ipomoea coccinea
- 179 Ipomoea purpurea (blue/purple) 180 Ipomoea purpurea (purple with white throat)
- 181 Ipomoea purpurea 'Grandpa Ott's'
- 182 Ipomoea tricolor 'Dawn Star' 183 Lablab purpureus

- 184 Lablab purpureus 'Alba'
- 185 Lathyrus sativus 186 Phaseolus coccineus *

- 187 Anethum graveolens 'Bouquet' 188 Anethum graveolens 'Long Island
- Mammoth' 189 Borago officinalis
- 190 Borago officinalis and cultivar 'Alba'
- 191 Foeniculum vulgare 192 Foeniculum vulgare 'Purpureum'
- 193 Matricaria recutita 'Bodegold'
- 194 Ocimum basilicum (scented mix)
- 195 Ocimum basilicum (sweet)
- 196 Ocimum basilicum 'Fino Verde' 197 Ocimum basilicum 'Italian Cameo'
- 198 Ocimum basilicum 'Mrs. Burns'
- 199 Petroselinum crispum 200 Petroselinum crispum var.
- neapolitanum 201 Petroselinum crispum var.

neapolitanum 'Gigante'

- **VEGETABLES & FRUITS** 202 Abelmoschus esculentus 'Clemson
- 203 Allium tuberosum 204 Brassica rapa var. rapa 'Purple-Top
- White Globe'
- 205 Capsicum annuum 'Golden Treasure'
- 206 Chenopodium giganteum 207 Citrullus lanatus 'Allsweet'
- 208 Cucumis melo 'Ambrosia' *
- 209 Cucumis melo 'French Charentais' *
- 210 Cucurbita maxima 'Lakota' *
- 211 Daucus carota 'King Midas F1' 212 Diplotaxis tenuifolia

Spineless'

- 213 Glycine max 214 Lactuca sativa (romaine)
- 215 Lactuca sativa 'Tom Thumb' 216 Luffa cylindrica
- 217 Lycopersicon lycopersicum 'Black Cherry'
- 218 Lycopersicon lycopersicum 'Jubilee' * 219 Physalis ixocarpa *

- **BONUS SEEDS**
- A Adlumia fungosa B Citrullus lanatus 'Yellow Crimson'
- C Cladrastis kentukea D Desmanthus illinoensis
- E Dodecatheon dentatum F Iliamna remota
- G Keckiella antirrhinoides
- H Lycopersicon lycopersicum 'Reisetomate' I Magnolia tripetala
- K Pandorea jasminoides L Pseudotsuga menziesii var. glauca
- M Zephyranthes drummondii N Zinnia elegans 'Envy' O Prairie Wildflower Mix

J Meconopsis grandis

- * Limited quantity available
 - JANUARY / FEBRUARY 2011
- 55

2011 AHS SEED EXCHANGE ORDER FORM

Order deadline is March 15, 2011

Due to Federal regulations, seeds can only be shipped within the United States.

Name	FIRST CHOICE SEED SELECTIONS
Address	(List by numbers only, please.)
City	I
State Zip code	2
Daytime phone	3
E-mail	4
AHS member #	5
NOT A MEMBER? You must be an AHS member to order seeds. If you would like to join the AHS, please select an annual membership level below and add the fee to your payment. Visit www.ahs.org/join to find out more about membership and its many benefits.	6 7·
I would like to join the AHS: 🗆 \$35 national membership 🕒 \$50 sustaining membership	8 9
SELECTION AND CONTRIBUTIONS	II
Current AHS members can order up to 10 packets of seeds free of charge, but we do suggest a \$5 voluntary contribution to help defray postage and handling costs.	12
Orders of 11 to 15 packets incur a mandatory postage and handling fee of \$10. Orders for up to 15 packets plus two bonus selections incur a \$15 fee. Donations of \$50 or more will receive 15 packets of seeds, two bonus seed selections, and a copy of <i>Homegrown Harvest</i> (see page 49).	13 14 15
☐ Please send me 10 selections. (A \$5 donation is suggested to help cover shipping and handling costs.)	SUBSTITUTE SELECTIONS
☐ Please send me up to 15 seed selections for a \$10 donation.	I.
☐ Please send me up to 15 seed selections plus 2 additional bonus seed selections for a \$15 donation.	2
Please send me up to 15 seed selections plus 2 additional bonus seed selections and a copy of <i>Homegrown Harvest</i> for a donation of \$50 or more.	3· 4·
SEED DONOR PRIORITY	5 Do not substitute any of my selections.
I donated seeds to the 2011 Seed Exchange and thus get first choice (order due by 2/1/11).	
PAYMENT INFORMATION	BONUS SEED SELECTIONS
☐ Check enclosed. Please make the check payable to AHS.	(List by letters only, please.)
☐ Please charge this amount to my credit card:	I
□ \$5 □ \$10 □ \$15 □ \$50 □ Other \$	2
Card #	SUBSTITUTE BONUS SELECTIONS
Ехр	I
Signature	2
Name on credit card	
· ····································	Do not substitute any of my honus

selections.

please print

PRONUNCIATIONS AND PLANTING ZONES

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

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

A-E

Actaea pachypoda ak-TEE-uh pak-IH-po-duh (USDA Zones 3-8, AHS Zones 8-1)

Amsonia ciliata am-SO-nee-uh sil-ee-AY-tuh (4-9, 9-4)

A. hubrichtii A. hew-BRIK-tee-eye (4-9, 9-4)

Bouteloua gracilis boo-teh-LOO-uh GRASS-ih-liss (4-9, 9-3)

Campsis radicans KAMP-siss RAD-ih-kanz (5–9, 9–3)

C. grandiflora C. gran-dih-FLOR-uh (7-9, 9-7)

Carex oshimensis KAIR-eks o-she-MEN-sis (6–9, 9–1)

Cercis canadensis SUR-siss kan-uh-DEN-siss (5-9, 9-2)

Chilopsis linearis ky-LOP-siss lih-nee-YAR-iss (6–10, 10–6)

Daphniphyllum humile daf-nee-FIL-um HYEW-mih-lee (7-10, 10-7)

D. macropodum D. mak-ro-PO-dum (7–10, 10–7)

Darlingtonia californica dar-ling-TONE-ee-uh kal-ih-FORN-ih-kuh (5-8, 8-5)

Datura innoxia duh-TOOR-uh in-NOK-see-uh (0-0, 12-4)

D. metel D. MET-el (0-0, 12-4)

Dionaea muscipula dy-o-NEE-uh mus-KIP-yew-luh (8–10, 12–1) Dodecatheon clevelandii doh-deh-KATH-ee-on cleev-LAND-ee-eye (6-9, 9-5)

D. clevelandii ssp. insulare D. cleev-LAND-ee-eye ssp. in-sue-LAIR-ee (6-9, 9-5)

Emmenopterys henryi em-meh-NOP-ter-iss HEN-ree-eye (7–9, 9–6) **Erysimum cheiri** ee-RISS-ih-mum KEER-eye (3–7, 7–1) Euscaphis japonica yew-SKAY-fis jah-PON-ih-kuh (6-8, 8-6) Exbucklandia populanea ex-buck-LAND-ee-uh pop-yew-LAY-

nee-uh (8-10, 10-7)

Franklinia alatamaha frank-LIN-ee-uh ah-lah-tuh-MAH-hah (6-9, 9-6)

×Gordlinia grandiflora gord-LIN-nee-uh gran-dih-FLOR-uh (7-10, 10-7)

Gordonia lasianthus gor-DOH-nee-uh lah-see-AN-thus (8-10, 10-8)

Heliotropium arborescens hee-lee-o-TROP-ee-um ar-bo-RES-enz (11, 12-1)

Holboellia coriacea hol-BEE-lee-uh kor-ee-AY-see-uh (6–10, 10–6) H. latifolia H. lat-ih-FO-lee-uh (6-10, 10-5)

Hydrangea arborescens hy-DRAN-juh ar-bo-RES-enz (4–9, 9–1)

H. paniculata H. pan-ik-yew-LAY-tuh (3-8, 8-1)

Ilex opaca EYE-leks o-PAH-kuh (5-9, 9-5)

Ipomoea tricolor ih-po-ME-uh try-kul-ur (above 45°F, 12-1)

Juglans nigra JOO-glanz NY-gruh (5–9, 9–5)

Juniperus horizontalis joo-NIP-er-iss har-ih-zon-TAL-iss (3-9, 9-1)

J. scopulorum J. skop-yew-LOR-um (3-7, 7-2) Lathyrus odoratus LATH-ih-rus o-doh-RAY-tus (0-0, 8-1)

Linaria maroccana lih-NAIR-ee-uh mah-ROK-an-uh (0-0, 9-1) Liriodendron tulipifera leer-ee-o-DEN-dron too-lih-PIF-ur-uh

Maclura pomifera muh-KLUR-uh pom-IF-ur-uh (5–9, 9–5) Magnolia yuyuanensis mag-NOLE-yuh yew-yew-uh-NEN-siss

(Zones not yet established)

Matthiola incana mah-tee-O-luh in-KAN-uh (5-8, 8-5)

Mirabilis jalapa mih-RAB-ih-liss jah-LAP-ah (9-11, 12-1)

Nicotiana alata nih-ko-shee-AN-uh ah-LAY-tuh (10–11, 12–1) **N. forgetiana** N. for-get-ee-AN-uh (10-11, 12-1)

N. × sanderae N. san-DUR-ee (10-11, 12-1)

Petroselinum crispum var. crispum pet-ro-seh-LY-num

KRIS-pum var. KRIS-pum (5-9, 9-1)

P. crispum var. neapolitanum P. KRIS-pum var. nee-uh-pol-ih-TAN-um (5-9, 9-1)

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

Pinus strobus PY-nus STRO-bus (3-8, 8-1)

Poliothyrsis sinensis pol-ee-o-THEER-sis SY-nen-siss (6-8, 8-5)

Q-Z

Quercus macrocarpa KWER-kus mak-ro-KAR-puh (3-9, 9-1) Reseda odorata reh-SEE-duh o-doh-RAY-tuh (0-0, 6-1) Sarracenia leucophylla sar-uh-SEE-nee-uh loo-ko-FIL-uh (5-9, 9-1)

S. oreophila S. or-ee-OFF-il-uh (7-9, 9-6)

Sassafras albidum SASS-uh-frass AL-bih-dum (4-8, 8-3)

S. tzumu S. ZOO-moo (7-9, 9-6)

Schima argentea SKEE-muh ar-JEN-tee-uh (9-11, 12-8) × Schimlinia floribunda skim-LIN-ee-uh FLOR-ih-bun-duh (9-11, 12-8)

Taiwania cryptomerioides ty-WAH-nee-uh krip-toh-mair-ee-OYdeez (8-9, 9-7)

Tropaeolum majus tro-PEE-o-lum MAY-juss (0–0, 10–1) Vaccinium corymbosum vak-SIN-ee-um ko-rim-BO-sum (5-9, 9-1)

Viola xwittrockiana VY-o-luh wih-trah-kee-AN-nuh (4–8, 9–1) Wisteria macrostachya wis-TEER-ee-uh mak-ro-STAY-kee-vuh (6-9, 9-6)

PLANT IN THE SPOTLIGHT

Dodecatheon clevelandii: A Wild Cyclamen from California

by Carol Bornstein

CINCE LEAVING Michigan almost 30 years ago, I have made the acquaintance of many fine Caliof fornia native plants. My list of favorites keeps changing, but Cleveland's shooting star (Dodecatheon clevelandii) is always among them.

SHOOTING STARS

California is home to eight of the dozen or so species in the genus Dodecatheon, which is predominantly native to western North America. The lone representative of the eastern United States is eastern shooting star (D. meadia).

The genus possesses a list of evocative common names: American cowslip, rooster combs, bird-bills, mosquito-bills, mad violets, sailor caps, prairie pointers, and wild cyclamen. The last is particularly apt, because cyclamen are the Asian and European relatives of *Dodecatheon*.

In California, shooting stars comprise two basic categories: high-elevation species that bloom in late spring or summer and occur in moist habitats, and lowland species that bloom in late winter or spring and grow in the winter-wet, summer-dry Mediterranean climate regions of the state. They share easily recognizable flowers, whose slightly askew, reflexed petals are indeed reminiscent of cyclamen. Borne in loose umbels, the nodding white to magenta flowers seem to dance atop leafless stalks, stealing the show from the rather plain basal foliage.

Cleveland's shooting star (D. clevelandii, USDA Zones 6-9, AHS Zones 9-5) is one of the most appealing members of the genus. Found throughout much of California's Mediterranean core, this clove-scented perennial grows wild on grassy slopes and flats in chaparral, foothill woodland, and valley grassland communities from central California south into Baja California, Mexico. The most commonly cultivated form, D. clevelandii ssp. insulare, is found in southern California and the offshore Channel Islands.



Dodecatheon clevelandii

Emerging in fall, shortly after the rainy season begins, the plant's light green, somewhat succulent leaves signal the end of its summer dormancy period.

Soon thereafter, the flower stalk elongates, reaching eight to 16 inches tall. Once the buds open, the upswept petals of lilac, rose, magenta, or white appear poised for flight. Later, the ripening seeds

Sources

Annie's Annuals and Perennials.

Richmond, CA. (888) 266-4370. www.anniesannuals.com.

Theodore Payne Foundation,

Sun Valley, CA. (818) 768-1802. www.theodorepayne.org. Seeds by mail-order; plants onsite only.

Yerba Buena Nursery, Woodside, CA. (650) 851-1668. www.yerbabuena nursery.com. (No mail-order.)

within the tan seed capsules rattle in the slightest breeze.

GROWING REQUIREMENTS

Although widespread in nature, Cleveland's shooting star isn't as easy to find in commerce. Yet gardeners who successfully track down seeds or plants will be amply rewarded if they follow a few simple guidelines. Place them in a sunny or partly shaded location and keep them wellwatered from autumn through spring. Then allow them to dry out completely in summer, otherwise their delicate, fleshy roots will rot. The succulent leaves and roots attract snails, slugs, and gophers, so protect the plants from these pests. Seeds germinate fairly easily and plants reach flowering size in about three years.

There are many ways to appreciate shooting stars in the garden. Growing them in containers is the most reliable method, whether nestled into established plantings while in flower and whisked away as the foliage yellows, or combined with other compatible plants in a trough garden. Rock gardeners can tuck a few among bulbs, succulents, and other diminutive companions.

For a captivating effect, plant drifts in a grassy meadow or beneath the dappled shade of trees or tall shrubs such as redbuds or manzanitas (Arctostaphylos spp.). Be sure to retain the showy, dried inflorescences long enough to release the next generation of shooting star seeds.

A horticulturist and garden writer based in Santa Barbara, California, Carol Bornstein is a coauthor with David Fross and Bart O'Brien of California Native Plants for the Garden (Cachuma Press, 2005).





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