



The American GARDENER

The Magazine of the American Horticultural Society

January/February 2006

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new plants
for 2006



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NOTES FROM RIVER FARM

EACH NEW YEAR holds the joyful hope and promise of a new beginning, and for gardeners this rings even more true. Over the course of the holiday season, we heard from many of you. You inspired us and energized us with your kind thoughts and generosity. Thank you for your friendship, your financial support, and your good works. We look forward to 2006 as a bright new year of growth and accomplishment at your AHS.

At this time of year, we focus our attention at the AHS on our member benefits. Through the annual *Member Guide* included in this issue, we share with you some of the very special opportunities you have as an AHS member to explore the breadth of horticulture in America and share the joy of gardening.

This year, 190 public gardens have joined our Reciprocal Admissions Program (RAP), entitling you to visit these places of beauty and inspiration across America at little or no charge. I encourage you to search out these gardens near your home as well as in places you may visit across the nation. You might be interested to note that no fewer than 14 public gardens were affected by the severe hurricanes last year (for more on this, see the article on page 12). Please help these gardens directly by visiting them, patronizing their gift shops, and offering financial support if you can.

Major flower shows in America are also part of our member benefits, and your AHS membership card gives you free or discounted admission to many of these shows. Flower shows are some of the best places to experience the first burst of spring and collect ideas for the growing season to come. Treat yourself to a memorable weekend experience by traveling to one of these great American flower shows! This year, the AHS will debut a special exhibit at the Philadelphia Flower Show based on our new Green Garage® educational program. Be sure to visit us there and bring your friends!

The *Member Guide* also includes the 2006 AHS Seed Exchange, a listing of seeds supplied by AHS members across the country that you can try in your own garden. Seeds offer special magic and I encourage you to order some seeds this year and watch a new life sprout and grow. And, if you can, share the magic of seeds with a child. I think back to how my dear friend, nurseryman Vic Carlson, shared the magic of a tiny begonia seed when I was 14. It changed my life!

In addition to these unique AHS member benefits, there are many more. Whether you live close by our headquarters in Alexandria, Virginia, or in some other community across America, the AHS offers numerous opportunities for you to connect to the fascinating science of horticulture...to the fine art of the garden...to the compelling nature of our world. This year, we have a particularly outstanding lineup of educational events scheduled around the country and I hope you will consider joining us at one or more of them.

And so we start the New Year with the conviction that together we can connect ever more people with plants in this great land of ours.

Happy gardening,



—Katy Moss Warner, AHS President





MEMBERS' FORUM

MYCORRHIZAE ARTICLE ON TARGET

As a garden writer, I subscribe to many gardening publications, and the article "Mighty Mycorrhizae" published in the July/August issue is one of the best articles I have read in a long, long time. I'm a garden writer whose background is in journalism rather than horticulture, so beneficial soil fungi was always one of those topics that usually made my eyes glaze over. But author Doreen Howard laid out the case for them in clear, easy-to-understand terms that made the topic approachable both to beginning and sophisticated gardeners.

Plus, I loved Howard's scientific approach to testing the effects of mycorrhizae. Many garden writers are often deluged with new gardening products from manufacturers, but not many of us take the time to test them to see which ones work. In this case, Howard did it for us. Keep up the good work.

Shirley Remes
South Elgin, Illinois

MORE ON MYCORRHIZAE

Not enough is written and put "out there" about the importance of soil health and its direct relationship to healthy plants. Being the compost geek that I am, I was so excited to see the article "Mighty Mycorrhizae" by Doreen Howard in your July/August 2005 issue, as well as the interview with soil biologist Elaine Ingham on page 44. Both used plain language to explain the lessons of undisturbed, mulched soil.

Each year, I teach a variety of gardening workshops, including workshops on composting and raised-bed gardening. Convincing people to get rid of their tillers and to mulch with the grass clippings and leaves that they send away to the landfill is one of my goals, but to have the students understand *why* it is necessary to stop disturbing the living organisms in their soil and feed them instead is a welcome breakthrough. Why waste

time and money on plants and plantings if you haven't done the soil preparation that is going to support these plants?

My final statement that I make at the end of my composting workshops is always: "Feed the soil and let the soil feed the plants."

Thank you so much for "Mighty Mycorrhizae."

Jennifer Ewing
Talent, Oregon

SWEET ON CANDYTUFT

The November/December 2005 article "Beautiful Brassicas" highlighted one of my favorite spring-flowering plants, *Iberis sempervirens*. This plant owes its common name, candytuft, to Candia, the name used for Chania in West Crete (Greece) by the Venetian occupiers, not—as the article states—from the name for Cyprus. British botanist Oliver Rackham at Cambridge University tells me that it is a very rare wildflower but has been seen in recent times in the White Mountains of West Crete.

Unlike the author's experience, I successfully grow this plant in my USDA Zone 5 Maine garden. It remains evergreen for me except for one winter when temperatures plummeted to Zone 4 levels without adequate snowcover. Incidentally, I find that the varieties that bloom spring and fall are less showy in the spring than the variety that blooms just once a year.

Harriet Lewis Robinson
Otisfield, Maine

FLORIDA IMPOSTER

I enjoyed the habitat gardening article on tropical Florida and Hawaii by Joanne Wolfe in the November/December 2005 issue, but was disappointed to find a "seedling of misinformation."

Because most references use the traditional common name "Geiger tree" for *Cordia sebestena*, I was initially surprised to see it called "geranium tree." And

while I wholeheartedly agree that the Geiger tree is a beautiful multi-purpose tree worthy of inclusion in any tropical collection, it is *not* a Florida native.

John James Audubon is credited for documenting the species in the Florida Keys, and he included a specimen as the backdrop for his painting of the white-crowned pigeon in *Ornithological Biography*, completed in 1839. However, he acknowledged that the plant was likely introduced from Cuba, as only two cultivated individuals were seen at the time.


Since then, no wild population of *Cordia sebestena* has been documented on Floridian soil, and the Institute of Systemic Botany at the University of South Florida lists Geiger tree as a non-native in its *Atlas of Florida Vascular Plants*.

It's time we give credit to the lands of the Caribbean basin for the Geiger tree. Grow, enjoy, and interpret it; just make sure the label's nativity doesn't read "Florida."

James Burghardt
West Palm Beach, Florida

Joanne Wolfe replies: Thanks for keeping us on our toes! Although several published references still identify the Geiger tree (sometimes called geranium tree, as well) as native to the Everglades and Florida Keys, the USDA Plants Database and other online floras now list it as introduced.

CORRECTION

An article in the November/December issue about new AHS board member Daryl Williams incorrectly identified the location of a project on which Daryl's construction firm is working. The project is at Cypress Gardens Adventure Park in Winter Haven, Florida. 

PLEASE WRITE US! Letters should be addressed to Editor, *The American Gardener*, 7931 East Boulevard Drive, Alexandria, VA 22308, or you can e-mail us at editor@ahs.org. Letters we print may be edited for length and clarity.



Immerse yourself in the intricacies of gardening with native plants, color in the garden, and garden photography at these three exclusive AHS Garden School offerings.

the AHS GARDEN SCHOOLS *for* 2006

Through a variety of presentations, demonstrations, and specially planned activities, participants will learn practical tips and techniques for mastering the effective use of native plants, color in the landscape, or the art of capturing the garden through photography. Avid garden enthusiasts and horticultural professionals alike will benefit from these inspirational and informative two-day program workshops.

The AHS Garden Schools offer a truly unique environment for life-long learning—intimate, in-depth workshops featuring personal instruction from noted garden authorities; opportunities for practical application and hands-on experiences; and outstanding settings.

Visit www.ahs.org or call (703) 768-5700 ext. 121 for more information on these exciting events.



Franklin Park Conservatory in Columbus, Ohio, site for "The Art & Science of Color in the Garden" workshop, May 11 and 12, 2006

April 6 & 7, 2006

Gardening with Native Plants

AHS Headquarters at River Farm, Alexandria, Virginia

Discover new plants, awaken your creativity, and surround yourself in the rich world of native plants with "Gardening with Native Plants" at a truly inspirational setting—the Society's River Farm headquarters overlooking the beautiful Potomac River.

Featuring guest horticulturist **Carole Ottesen**, author of the *Native Plant Primer: Trees, Shrubs and Wildflowers for Natural Gardens*, and a special evening with **Rick Darke**, author of *The American Woodland Garden*.



CAROLE OTTESEN

May 11 & 12, 2006

The Art & Science of Color in the Garden

Franklin Park Conservatory, Columbus, Ohio

Sharpen your skills, recharge your creativity, and immerse yourself in the intricacies of color in the garden with "The Art & Science of Color in the Garden" at Franklin Park Conservatory, one of North America's notable glass conservatories.

Featuring guest horticulturist **Heather Will-Browne** of the Walt Disney World Resort in Florida and a special evening with **Julie Moir Messervy**, landscape designer.



HEATHER WILL-BROWNE

October 26 & 27, 2006

The Art & Science of Garden Photography

Lady Bird Johnson Wildflower Center, Austin, Texas

Look at the garden through a new lens, heighten your ability to capture the garden and gain a greater appreciation for the surrounding landscape with "The Art & Science of Garden Photography" amid the stunning landscape of the Lady Bird Johnson Wildflower Center.

Featuring guest horticulturist **Robert Bowden** of Orlando's Harry P. Leu Gardens and a special evening with **Van Chaplin**, garden photographer at *Southern Living* magazine.



ROBERT BOWDEN

AHS Green Garage® Exhibit at the 2006 Philadelphia Flower Show

THE AMERICAN HORTICULTURAL SOCIETY'S **Green Garage®**, a gardening model that emphasizes efficient and earth-friendly practices, will make its national debut as an educational exhibit at this year's Philadelphia Flower Show. Running from March 5 to 12, 2006, at the Pennsylvania Convention Center, the show is an eagerly anticipated event where plant enthusiasts and gardeners of all levels from around the country meet, compete, and share some of the finest horticultural feats in America.

The AHS Green Garage® is perfectly in keeping with this year's Flower Show theme, "Enchanted Spring...A Tribute to Mother Nature." After all, what could be more fitting to Mother Nature than relaying information about composting, recycling, reducing air and noise pollution, and increasing awareness of native plants and biodiversity? Coordinated by **Trish Gibson**, AHS events manager, and Landscape Architect **Ann English**, the display is designed to be both a visually pleasing exhibit and a learning station. "It's basically a residential vignette," Ann says. "The exhibit will show visitors how they can apply the Green Garage® program's ecologically sound principles to their own yards."

No exhibit at the Philadelphia Flower Show would be complete without dazzling plants and architectural elements, and the Green Garage® is no exception. Several exciting, top-performing

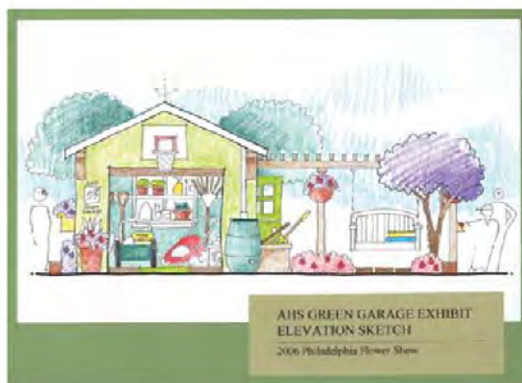
plants and new introductions will be featured, including plants from the **Athens Select™** program, **Goldfisch™** geraniums, and boxwoods from **Saunders Brothers Nursery** of Piney River, Virginia. **Meadowbrook Farm** in Meadowbrook, Pennsylvania, and

Stoney Bank Nurseries, Inc. in Glen Mills, Pennsylvania, will provide growing assistance. The plants will be grouped by cultural requirements—another Green Garage® concept. Wetland plants and full-sun, dry condition plants are just two of the groupings that will be represented, as well as many natives.

Carla Shuman, a Florida landscape architect, designed the display's floor plan. The Green Garage® structure itself is being designed by **Martinez & Johnson Architecture** of Washington, D.C. Most of the tools and equipment within the display will be provided

courtesy of **Gardener's Supply Company**, based in Burlington, Vermont. Visitors will also see a custom-made wall sculpture by **Flaherty Iron Works** of Alexandria, Virginia, the company that helped to restore the AHS's set of historic White House gates, which were on display at the 2005 Philadelphia Flower Show.

For more information about the Philadelphia Flower Show or to order advance tickets, visit www.theflowershow.com. For more information on the Green Garage® concept, see the article on page 54.



Landscape architect **Carla Shuman's** rendering of the Green Garage display for the Philadelphia Flower Show.

AHS Corporate Partner Smart Gardening TV Begins Exciting Third Season

SMART GARDENING TV, the AHS's newest corporate partner, begins its third season of informative shows starting this January. Each week, **Smart Gardening** correspondents visit gardens in the United States and abroad to highlight relevant gardenings topics such a sustainable practices, water conservation, plant



AHS Board member **Allan Armitage** will host a new a segment on gardening tips for Smart Gardening TV this coming season.

health, landscape design, ways to improve soil, and techniques for controlling invasive species. Slated episodes will explore the Pacific Northwest, California, the Netherlands, and the south of France.

This season will have a new feature: AHS Board Member **Allan Armitage** will have his own signature segment titled "Allan's Hat Trick" in which he will offer a collection of gardening tips. These tips will emphasize the 10 tenets for the AHS's SMARTGARDEN™ program, which include practices such as conserving water and working with nature whenever possible.

Check local listings for times and days that Smart Gardening is broadcast. It is available in most areas of the country on local PBS stations, but times may vary. For more information, visit www.smartgardeningtv.com.

Dr. H. Marc Cathey Day at AHS

AHS STAFF MEMBERS, volunteers, and friends of the AHS, including Board Member **Landon Reeve** and his wife **Dallas**, celebrated the first ever Dr. H. Marc Cathey Day at River Farm last October. Together with **Dr. Cathey**, everyone planted crocus bulbs in the shape of "X's" and "O's" in beds next to the AHS Garden Shop.

When Dr. Cathey retired as the AHS president emeritus last June, the Board of Directors designated his birthday (October 23) as a special day the AHS would celebrate every year. Since it fell on a Sunday this year, it was observed on the 21st. In addition to contributing nearly 50 years of service to the AHS, Dr. Cathey's pioneering research on the response of plants to light changed the plant growing industry.

For the inaugural holiday, Dr. Cathey wanted participants to surprise friends and loved ones with hugs and kisses, arranged in flowering displays. To further this goal, AHS members who responded to the River Farm appeal received 'Flower Record' crocuses in the mail to plant at home. The crocuses, donated by **K. Van Bourgondien & Sons** of Babylon, New York, will bloom lavender with purple stripes.

Dr. Cathey, whose favorite color is, of course, purple, re-



Above, AHS staff, friends, and volunteers plant crocuses in October in the pattern of X's and O's, left, to celebrate the first Dr. H. Marc Cathey Day.



mind those at the celebration that everyone is really "green" at heart. With characteristic optimism, he pointed out that the simple act of planting these spring bulbs would continue the cycle of growth in the natural world and connect people to flowers and plants in all seasons of the year.

60TH COLONIAL WILLIAMSBURG GARDEN SYMPOSIUM

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AHS NATIONAL EVENTS AND PROGRAMS 2006 CALENDAR

Mark your calendar for these upcoming national events and programs that are sponsored or cosponsored by the American Horticultural Society.

- MAR. 5–12. **Philadelphia Flower Show.** Pennsylvania Convention Center, Philadelphia, Pennsylvania.
- MAR. 13–15. **AHS President's Council Trip.** Palm Springs, California.
- APR. 1–29. **Washington Blooms!** George Washington's River Farm, Alexandria, Virginia.
- APR. 6 & 7. **AHS Garden School: Gardening with Native Plants.** George Washington's River Farm, Alexandria, Virginia.
- APR. 21 & 22. **Friends of River Farm Plant Sale.** George Washington's River Farm, Alexandria, Virginia. (Note: Members-only preview sale starts at 5 p.m. on the evening of April 20th).
- APR. 21–JUNE 11. **Epcot International Flower & Garden Festival.** Orlando, Florida.
- APR. 30–MAY 3. **Colonial Williamsburg Garden Symposium.** Williamsburg, Virginia.
- MAY 5. **Magic of Landscaping Conference.** Orlando, Florida.
- MAY 11 & 12. **AHS Garden School: The Art & Science of Color in the Garden.** Franklin Park Conservatory, Columbus, Ohio.
- MAY 21. **Friends of River Farm Family Picnic.** George Washington's River Farm, Alexandria, Virginia.
- JUNE 1. **Taste of River Farm.** George Washington's River Farm, Alexandria, Virginia.
- JUNE 2. **Great American Gardeners Award Ceremony and Banquet.** George Washington's River Farm, Alexandria, Virginia.
- JULY 27–29. **National Children & Youth Garden Symposium.** St. Louis, Missouri. Hosted by the Missouri Botanical Garden.
- SEPT. 23. **AHS Annual Gala.** George Washington's River Farm, Alexandria, Virginia.
- OCT. 26 & 27. **AHS Garden School: The Art & Science of Garden Photography.** Lady Bird Johnson Wildflower Center, Austin, Texas.

For more information about these events, call (800) 777-7931 or visit the AHS Web site (www.ahs.org).

Dahlia Demonstration at River Farm

WITH A BUMPER STICKER that proclaims, "I love dahlias," it's no secret that AHS Board member and American Dahlia Society trustee **Harry Risetto** is passionate about these plants. Always glad to share his expertise, Harry gave a demonstration at River Farm on December 3 on how to prepare and store dahlia tubers for the winter. With the help of AHS staff members, he dug up and cut back the 46 dahlia tubers he donated to River Farm this past summer. Harry explained that the dead stems should be trimmed off at soil level and the tubers should be washed off. He advised dipping the tubers in a broad-spectrum fungicide, then allowing them to dry off for a day before storing them.



Dahlia expert Harry Risetto, right foreground, shows AHS staff and friends the correct way to dig up and store tubers for the winter.

Harry likes to store his tubers at 50 degrees Fahrenheit in plastic baggies with enough vermiculite or perlite to cover them. "The important thing to realize here is that these tubers are living organisms, not stones," he says. "They need to be kept from freezing and they need a little moisture but not too much." When all danger of frost has passed in the spring, dahlia tubers may be planted out again.

Hurricane-Hit Gardens in AHS Reciprocal Admissions Program

SEVERAL PUBLIC GARDENS that participate in the AHS's Reciprocal Admissions Program (RAP) found themselves in the paths of Hurricanes Katrina, Rita, and Wilma in 2005. In an effort to help with the recovery and rebuilding process, the AHS decided to allow these gardens to renew their participation in RAP for 2006 at no cost.

The majority of these gardens are located in Florida and include the **American Orchid Society Visitor Center and Botanical Garden, Edison & Ford Winter Estates, Fairchild Tropical Botanic Garden, Flamingo Gardens, Heathcote Botanical Gardens, Inc, Marie Selby Botanical Gardens, McKee Botanical Garden, and Mounts Botanical Garden.** The **Crosby Arboretum** in Mississippi, the **Mobile Botanical Gardens** in Alabama, and the **Longue Vue House and Gardens** in Louisiana also received complimentary RAP renewal.

Through RAP, most of these gardens allow AHS members free admission and other benefits. However, these gardens are still in dire need of aid in the form of funds and volunteers. If you would like to help, please check the 2006 AHS *Member Guide* in this issue for their contact information.

America In Bloom's 2006 Contest

AMERICA IN BLOOM (AIB), an AHS partner, is gearing up for its fifth community beautification contest this year. It promises to be another exciting competition as ever-increasing numbers of towns, cities, and municipalities become involved. Participating communities compete with others in the same population category, and are evaluated on eight criteria—including floriculture and community involvement—by professionally trained judges between June and August. Results for 2006 will be announced during a symposium and awards program in Eureka Springs, Arkansas, a thriving and charming community that was the recipient of the AIB Yoder Brothers Heritage Preservation Award in 2005.

"The America In Bloom contest is a unique way for communities to receive recognition for the special things they do to plant pride in their communities," says AHS President **Katy Moss Warner**, who also serves on the AIB Board of Directors. "It's a terrific opportunity to showcase just how important plants—especially flowers—really are for the overall vitality of a town or city."

To get your community involved, visit www.americainbloom.org or call (614) 487-1117 for more information and a registration form. The deadline to enter is February 28.

News written by Assistant Editor Viveka Neveln and Editorial Intern William Clattenburg.

2006 Youth Garden Symposium

For anyone interested in children's gardening, this year's AHS National Children & Youth Garden Symposium will be an exciting and essential event to attend! Hosted by the **Missouri Botanical Garden (MOBOT)** in St. Louis from July 27 to 29, the symposium will include inspirational keynote speakers such as **Richard Louv**, the nationally acclaimed author of *Last Child in the Woods: Saving Our Children from Nature Deficit Disorder* (a review of this book appears on page 50).



Author **Richard Louv**

In addition, attendees will have a special opportunity to explore the brand new **Doris I. Schnuck Children's Garden** opening this spring at MOBOT. Designed to be all about adventure and discovery, the two-acre garden will provide the perfect example of the symposium's theme, "Cultivating a Sense of Place: A Youth Gardening Adventure."

For more information about the symposium, visit www.ahs.org or call Nancy Busick, AHS Youth Programs Coordinator, at (703) 768-5700 ext. 132.

American Horticultural Society

Washington Blooms!

April 1–29, 2006

Join us this April for *Washington Blooms!* at River Farm. Nothing compares with the beauty of the early spring blooms in the National Capital area. Cherry blossoms, daffodils, and tulips herald the coming of spring in an explosion of color. Mark your calendar and plan to visit River Farm and the National Capital area this April—you'll find a variety of spring delights with something for every gardener and garden enthusiast, no matter what your passion!

Visit www.ahs.org or call (703) 768-5700 for more information.

2006 Washington Blooms! Events at River Farm

- | | |
|---------------|--|
| April 1 | • Spring Garden & Bulb Tour |
| April 8 | • Spring Garden & Bulb Tour |
| April 15 | • Spring Garden & Bulb Tour |
| April 20 | • Members-Only Preview Night
Friends of River Farm Plant Sale |
| April 21 & 22 | • Friends of River Farm Plant Sale |
| April 29 | • Spring Garden & Bulb Tour
• Family Day at River Farm |

Ongoing for the month of April at River Farm

- Thousands of spring blooms!
- AHS Garden Shop
- Botanical and garden art exhibit

More reasons to visit the National Capital Area in April

- National Cherry Blossom Festival (March 25 – April 9)
- Historic Garden Week in Virginia (April 22 – 29)

AHS NEWS SPECIAL: Gulf Coast and Florida Gardens Begin Recovery

by William Clattenburg

MONTHS AFTER Hurricanes Katrina, Rita, and Wilma successively ravaged the Gulf Coast and Florida regions, relief workers, police, volunteers, and citizens are still working to aid the unfortunate, restore vital services in battered cities, and clean up tons of debris.

In the realm of botanical gardens and arboreta, recovery comes slowly. For gardens with the greatest damage, it will take years to bring displays and trails back to their pre-hurricane condition. Initial efforts in most Gulf Coast gardens have focused on cleaning up debris and rubble that impeded workers from starting other tasks. On top of hauling away the many limbs and fronds that were detached during the storms, workers had to remove miscellaneous garbage washed or blown into their sites. Given the overwhelming nature of the damage, and faced with winter's approach, in many cases garden staff concentrated on saving plants that had a shot at survival and getting gardens back to where they are safe enough to open to visitors.

SOUTH FLORIDA GARDENS MAKE HEADWAY

Southern Florida, which was hit hard by Rita and Wilma, is one area where replanting is somewhat more prevalent. As in Louisiana, Mississippi, and Alabama, however, a lot of plants were destroyed. "We lost many subtropical flowering trees," says **Janet Alford**, executive director of McKee Botanical Garden in Vero Beach, Florida.

At Mounts Botanical Garden in West Palm Beach, Florida, garden workers have proceeded in an orderly way from "the front of the garden to the back," says **Sandy Sklar**, marketing director. "The second week after the hurricane the entire Cooperative Extension went out *en masse* to work on cleanup, along with other volunteers from a neighboring extension. All told, they put in 2,000 hours of work."



Hurricane-felled trees like this one at Mobile Botanical Gardens, above, and those that toppled and crushed the pavilion at Crosby Arboretum, left, were common sights at many public gardens throughout the southern coast of the United States last year.

dens nervous is the perception that we're destroyed," she says. "A drop in attendance has affected us, but this is in large part because a lot of residents have their own issues and homes to clean up." Sklar says she wants people to know that Mounts Botanical Garden opened again as of December 1. "We never shut our gates," she says.

NEW ORLEANS GARDENS FACE LONG HAUL

Unfortunately, the outlook is not as good for gardens in New Orleans and other low-lying areas where Katrina made landfall. Some positive news came from New Orleans City Park where the Civilian Engineer Corps has started replanting the park's 14-acre Botanical Garden.

The City Park, which offers residents an experience similar to New York's Central Park, was subjected to heavy flooding with salt water from the Gulf of Mexico. Even after waters receded, arborists are con-

No amount of work, however, will save many of the big trees that were weakened and felled by the storm. Both Mounts and McKee Gardens suffered in this respect. "We did lose some of our canopy," says Alford of McKee Gardens, "but we have a plan for restoration." One element of that plan was in effect before the first hurricane of 2005 hit. Live oak trees, emblematic trees of the American South, were all staked for support.

Alford emphasizes that, despite some damage, the perception of devastation in Florida has actually been greater than reality. "The thing that makes Florida gar-

cerned that some of the large trees might not survive. Tree death can occur five to 15 years after periods of heavy stress. Tree losses at this site would be all the more tragic because New Orleans City Park has “the largest and oldest stand of live oaks in the world,” says frequent New Orleans visitor **Gail Dresner**, who is also the lead designer of the Resurrection Garden, a benefit for this Park that will debut at the Portland Home & Garden Show this year (for details on the show, see the *Member Guide* in this issue).

In Picayune, Mississippi, the extent of fallen trees made even getting to arboretum and garden sites an obstacle. In some cases garden staff members had to use chainsaws to literally clear a road back to their places of work in order to begin cleanup. “We’ve had extensive damage to the exhibits and trails,” says **Melinda Lyman**, senior curator at the Crosby Arboretum in Picayune. “A tree fell on our Pinecote Pavilion causing a hole in the roof. A lot of rafters have broken and loosened in the corner where it fell and the support beams now are warped.”

VISITORS NEEDED

Botanical gardens—dependent on revenue from visitors—face a “Catch 22” situation if they cannot open to the public because of safety concerns. Crosby Arboretum reopened on December 3 and Lyman credits staff with tirelessly preparing the Arboretum for this date. “We spent several weeks cutting through the trails to get equipment through them. We’ve had trouble getting volunteers to help us because of course they were dealing with their own crises. But some have started trickling in.”

Lyman says the support of fellow public gardens and other green industry groups has been incredible. “We were strengthened by monetary help from Nebraska Statewide Arboretum, our sister arboretum,” she says. “We need it because of the loss in revenue and to rent equipment to keep us up and running. We want people to visit us.”

Damage to Mobile Botanical Gardens was exacerbated by lingering effects of the 2004 hurricanes. “The damage from Katrina was extensive because so many of the

trees were weakened by Ivan,” says Executive Director **Marion Drummond**. Volunteers arrived soon after both Ivan and Katrina to clear the roads, uncover plants, and carry plants to irrigation facilities. “It’s amazing how many people came out to help,” she says. “They remind you that you have to help others.” Drummond notes that she was “tremendously touched” to receive a letter and personal donation from AHS President **Katy Moss Warner**. “Those kind of thoughts and donations have been particularly meaningful,” says Drummond.

While reconstruction of damaged gardens and communities will go on for some time, lessons learned in botanical gardens will be used to prepare for future natural disasters. “You always have changes, and Mother Nature seems to heal herself,” Janet Alford says. “We really want people to learn from our experiences and learn about what works in our gardens and what might work in their own landscapes.”

William Clattenburg is an editorial intern for The American Gardener.

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Zinnia elegans 'Cool Crayon Colors'



Alternanthera 'Summer Flame'

New Plants *for* 2006

Wondering what will be the next must-have plants for your garden? Here are some to look for in the coming season.

BY ILENE STERNBERG

HOT ON THE trail of the next big thing in the plant world? Like most humans, gardeners are ever in search of something “new” and “improved.” After a while, you’d think we’d run out of new plants, but hybridizers, plant hunters, and PR reps (yes, nowadays even plants have their own press agents) are wise to this and continue to ply us with a fresh crop of tantalizing contenders each season. How can we pick from among all these highly touted plants vying for our attention?

On one hand, there are the “prize” choices: the Pennsylvania Horticultural Society’s Gold Medal winners, the All-America Selections (see box, page 46), not to be confused with the All-America Daylily Selections, the All-America Rose Selections, etc. These groups aim to cull the best performers from the vast array of everything available so we don’t just fall for another pretty face.

On the other hand, sometimes we just have to be adventurous, trust our instincts, choose what looks or sounds appealing for one reason or another, and test them in our own gardens.

Here are a few of the many new introductions for 2006 begging for a chance.

Each description includes USDA hardiness and AHS heat zone estimates and a website to visit for more information about the plants. Contact information for some vendors is included in the box on page 18.

ANNUALS AND TENDER PERENNIALS

The Benary’s Giant *Zinnia elegans* ‘Cool Crayon Colors’ (USDA Zones 8–9, AHS Zones 12–1) that Renee’s Garden Seeds (www.reneesgarden.com) is selling look absolutely scrumptious! This custom blend of florist-quality, fully double, long-stemmed lovelies in shades of deep lavender, carmine-rose, soft pink, and white form instant bouquets as they’re plucked from their beds.

Another Renee’s Garden exclusive is a new love-in-a-mist (*Nigella damascena*, Zones 8–9, 12–1) cultivar ‘Persian Violet’. Each complex flower opens white with sky-blue edges, then deepens to rich indigo-violet, an intriguing twist on this old-fashioned favorite. Renee says, “The papery seed pods resemble little striped fairy lanterns.”

Ball Horticultural Company’s Tidal Wave™ Hedge Petunias (*Petunia* hybrid) come in four colors: cherry, hot pink, purple, and silver (off-white, really), forming a whole new class of petunia it calls “hedgiflora,” which can fill one square yard of garden space with a single plant. Each forms a 16- to 22-inch mound, and, given support, can grow an additional two to



Petunia Tidal Wave

three feet high. I tried these myself and was pleased at how well they did during our droughty, hot summer in Pennsylvania. Check them out at www.wave-rave.com.

From Athens Select™ (www.athensselect.com), a plant testing and introduction program at the University of Georgia Trial Gardens, come two new alternanthera (*Alternanthera ficoidea*, Zones 9–11, 12–1) cultivars, ‘Red Threads’ and ‘Summer Flame’, selected by horticulturist Allan Armitage. ‘Red Threads’ has linear, deep burgundy colored leaves and develops a moundlike habit to eight inches tall. Slightly taller is ‘Summer Flame’, which has broader, variegated leaves in shades of pink, white, and green. Selected for heat and humidity



Canna ‘Tropicanna™ Black’

tolerance, both provide vibrant color in sunny borders or containers.

Canna ‘Tropicanna™ Black’ (Zones 7–10, 12–1), a hybrid from Anthony Tesselaar International (www.tesselaar.com), has glossy, deep black leaves that are fuller, extra rounded, and darker than other dark-leaved cannas, with a denser habit. Growing about six feet tall, it produces striking five-inch tangerine flowers from spring to fall and is ideal for containers, water gardens, ponds, and bogs.

HERBACEOUS PERENNIALS

Monrovia Nursery in Azusa, California (www.monrovia.com), is bringing a new Spanish lavender (*Lavandula stoechas*, Zones 7–9, 9–7) called ‘Lemon Leigh’ to your fragrance garden this year. This easy-care perennial displays soft, pale yel-

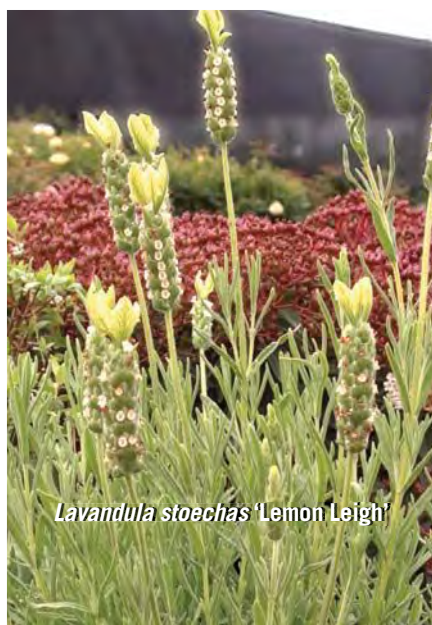
low to chartreuse floral spikes above blue-gray foliage. The dense, mounding form, 20 to 28 inches high by 18 to 36 inches wide, makes it perfect for dry borders, perennial beds, herb gardens, and containers. Prolific and pretty, it flowers spring through summer. A heady scent and butterfly guests are a bonus.

For still more butterflies, Renee’s Garden is selling seed for *Lavandula multifida* ‘Fernleaf’ (Zones 8–12, 12–8) a lavender with deeply lobed, silvery foliage, and blue-violet blossoms. It’s highly aromatic with a hint of oregano and flowers the first year from seed.

Monrovia is also offering Roman Beauty rosemary (*Rosmarinus officinalis* ‘Roman Beauty’, Zones 8–10, 12–8) for cooking, potpourri, and cut flower arrangements. Its deep gray-green foliage forms a tidy mound, but will cascade in a container or over a low rock wall, making it an asset to a rock, herb, or container garden. Once established, this sun worshiper is both heat and drought tolerant.

From Heronswood Nursery comes a spring-to-summer bloomer for partly shaded gardens. *Primula* ‘Kingston Twilight’ (Zones 5–9, 8–1) bears deep blue-violet flowers that show off well against the bright green foliage. The robust plants form attractive mounds.

Itsaul Plants in Atlanta, Georgia, breeder of the fantastic Cone Crazy™ *Echinacea* Big Sky™ Series (crosses between *E. purpurea* and *E. paradoxa*), has released two outstanding new selections: Harvest Moon™ (‘Matthew Saul’), offering fragrant, creamy gold flowers with orange cones and overlapping petals that begin to reflex as the flowers age; and ‘Twilight’, sporting fragrant, rose-red petals



Lavandula stoechas ‘Lemon Leigh’



Primula ‘Kingston Twilight’

light’, sporting fragrant, rose-red petals and deep red cones. Both grow 24 to 30 inches tall (Zones 4–9, 12–1) and are available through Walters Gardens, Inc. (www.waltersgardens.com).

Years of painstaking effort went into developing *Cypripedium* ‘Hilda’ (Zones 4–8, 8–1) a hearty hybrid lady’s-slipper orchid that has *C. kentuckiense* and *C. ventricosum* parentage. An easy-growing upright plant, it bears numerous three-and-a-half-inch-wide, lightly rose-scented flowers composed of purple sepals and a crisp white pouch (or slipper), striped and speckled purple, and dark dorsal petals. It is available from Raising Rarities (www.raisingrarities.com) and Roots & Rhizomes (www.rootsrhizomes.com).

Also available from Roots & Rhizomes is *Helenium* ‘Double Trouble’ (Zones 4–8, 8–1). Introduced by Darwin Plantspotters® (www.darwinplants.com), it is the first double-flowered



Cypripedium ‘Hilda’

NEW PLANTS AT THE EASTERN PERFORMANCE TRIALS AT RIVER FARM



Euphorbia 'Diamond Frost' was available for previewing at the Proven Winners exhibit.



Goldsmith's *Cleome* Sparkler and *Salvia splendens* 'Picante Purple' (back) mix well in a container at River Farm.



Buxus 'Dee Runk' is an upright, conical selection from Saunders Brothers.

Visitors to the American Horticultural Society's headquarters last September had a chance to preview a wide array of new introductions for 2006 growing in beds and containers during the debut of the Eastern Performance Trials.

New plants from **Proven Winners** (www.provenwinners.com), a marketing consortium representing several major plant companies, were displayed in newly designed beds in front of the Estate House. One that attracted a lot of attention was 'Diamond Frost' euphorbia (a hybrid of *Euphorbia hybericifolia*, USDA Zones 9–11, AHS Zones 12–1). Growing 10 to 14 inches tall, this tender perennial forms a mound of finely cut dark green foliage topped by a lacy cloud of white flowers. Touted as a heat- and drought-tolerant alternative to baby's breath, 'Diamond Frost' looks great as a bedding plant or cascading gracefully over the edge of a container.

Also drawing admiring glances was *Phlox* 'Intensia™ Cabernet' (Zones 9–11, 12–1), one of several new color options in the 'Intensia' hybrid series of annual phlox. Heat- and humidity-tolerant, this fragrant and floriferous phlox grows to a foot tall and blooms from spring to fall in full sun to part shade. The rich, deep pink color of 'Intensia Cabernet' looks great massed or mixed with cooler colors in beds or containers. Other color options in the series include white, neon pink, and lilac rose.

At **Goldsmith Seeds** (www.goldsmithseeds.com) display in the AHS Fragrance Garden, visitors gravitated toward the Sparkler™ cleomes (Zones 10–11, 12–1), a new hybrid series of compact, bushy cleomes that don't flop over as easily as taller types. Growing three to four feet tall, these cleomes represent a breeding breakthrough as the first commercial F1 cleome hybrid series. Grown in full sun, they provide a striking mass of pink or white flowerheads above attractive dark green foliage.

Goldsmith also showcased a new addition to its 'Picante' line of heat-tolerant annual salvias (*Salvia splendens*, Zones 11–12, 12–1). The amethyst-hued 'Picante Purple' grows 14 to 16 inches tall and slightly less broad with an upright habit.

Saunders Brothers (www.saundersbrothers.com), a wholesale nursery in Piney River, Virginia, created a formal garden near the AHS Children's Garden to exhibit some of its newest boxwoods, including *Buxus* 'Dee Runk' (Zones 6–8, 8–6), an upright, conical selection that grows to 12 feet tall and three feet in diameter over 15 years.

Nearby, **Centerton Nursery** (www.centertonnursery.com) of Bridgeton, New Jersey, displayed their new introductions flanking a "roadway" of dark-foliaged ornamental

clover (*Trifolium repens* 'Dark Dancer', Zones 4–8, 8–1). Among these was a new repeat-blooming daylily called *Hemerocallis* 'Stephanie Returns' (Zones 3–8, 12–1), named after Philadelphia-area perennial expert Stephanie Cohen. Part of the "Happy-Ever-Appster®" series of long-blooming daylilies developed by breeder Darrel Apps, this plant features two-tone rosy/apricot flowers with a chartreuse center and grows to about a foot and a half. To locate a dealer for this daylily, visit www.happyeverappster.com.

To see images of the six EPT host sites and many of the plants showcased during the Trials, visit the EPT website at www.easternperformancetrials.org.

—AHS Staff



Hemerocallis 'Stephanie Returns' from Centerton was developed by Darrel Apps.

sneezeweed to appear on the market. Copious lemon yellow flowers with raised golden-yellow centers stand sturdily on compact 28- to 34-inch plants from July to frost, making it a worthy addition to any perennial border.

Barry Glick of Sunshine Farm and Gardens in Renick, West Virginia, is nutty for hellebores. I spotted *Helleborus foetidus* 'Frenchy' (Zones 4–10, 10–1) on his website (www.sunfarm.com) and was smitten. Discovered by a friend on a seed collecting expedition in the French Alps, this strain of the infinitely variable stinking or bear's-foot hellebore has delicate, lacy red-tinged silvery foliage with attractive red veining on the floral sheaths.

Terra Nova Nurseries (www.terrannova-nurseries.com) in Oregon has an ever-increasing range of heucheras to show. One with less hype than some, but plenty of



Coreopsis 'Autumn Blush'

pretty is *Heuchera* 'Fantasia' (Zones 4–9, 9–1) with silvery leaves over bright red reverse sides and masses of pink flowers. They also have a new series of coreopsis. *Coreopsis* 'Cherry Lemonade' forms a mound of bright green feathery foliage and a long blooming season of coral-red flowers. *C.* 'Autumn Blush' has peachy yellow flowers with red eyes (Visine not included). In the cool days of spring and fall the flowers take on a rosy tint. Both coreopsis are suited to Zones 4 to 9, 9 to 1.

For striking colors, consider *Papaver orientale* 'Fruit Punch' (Zones 4–9, 9–1), a new seed strain of Oriental poppy from Thompson & Morgan (www.thompson-morgan.com). The five-inch ruffled crepe paper blooms on this poppy come in shades of plum, pink, red, and orange set



Papaver orientale 'Fruit Punch'

off against dark black centers. Flowers grow to 30 inches above dark green foliage and are reportedly spectacular in arrangements. (If you like poppies, also check out T&M's 'Summer Sorbet' California poppy, a low-growing annual with fluted pink-and-cream-colored flowers.)

Darrell Probst of Garden Vision in Hubbardston, Massachusetts, has bred some new epimediums, those tough but delicate-looking, deer-resistant, drought-tolerant shade ground covers. *Epimedium* 'Domino' forms a 12-inch mound of dark evergreen foliage sponge-painted various shades of maroon in spring, covered in a halo of creamy white and grape spidery flowers to 16 inches from late April to mid-May. *Epimedium* × *versicolor* 'Strawberry Blush' has dark-edged leaves with pinkish maroon mottling in spring, eventually turning all green. Soft pastel flowers have wide, antique pink sepals brushed with rose streaks backing a



Stachys byzantina 'Silky Fleece'

cheerful yellow cup, which deepens to rose-purple on short, curved spurs. Both grow in Zones 5 to 9, 9 to 1.

Jelitto Perennial Seeds (www.jelitto.com) is coming out with a dwarf form of common lambs ears (*Stachys byzantina*, Zones 4–8, 8–1) called 'Silky Fleece'. This diminutive plant forms soft, dense mats of fuzzy silver-gray foliage about two inches tall. The upright flower stalks, with tiny plum-colored, summer blossoms, grow 10 to 15 inches. It's described as an easy-to-maintain ground cover ideal for free-draining soils in full sun, perfect for a rock garden, or as an edging plant.



Clematis × 'Hania'

DAYS OF VINES AND ROSES

Three outstanding Polish clematises from Monrovia, *Clematis* 'Barbara' (bright purplish-pink flowers with deeper colored central bar), *C.* 'Julka' (velvety violet flowers with deep purple-red bar), and *C.* 'Hania' (bi-color with purple-red petals and light pink margins), won gold, silver, and bronze medals, respectively, at a trade fair in Holland a few years ago for their vigor and prolonged bloom time. All three clematises grow in Zones 4 to 9, 9 to 1.

British breeder Raymond Evison is bringing out three new members of his Patio Clematis™ Collection in 2006, including the stunning red-and-purple 'Bourbon'; 'Angelique', with large, pale lilac-blue flowers; and 'Parisienne', offering large, mauve flowers with reddish-pur-

Sources

Retail sources for many of the plants in this article are listed here. For those that were only available through wholesale at the time of printing, the distributor and contact information are noted in the article. Contact distributors for retail sources or ask at a local nursery.

Garden Vision, Hubbardston, MA.
(978) 928-4808.

Heronswood Nursery, Kingston, WA.
(360) 297-4172.
www.heronswood.com.

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

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

Johnny's Selected Seeds, Albion, ME.
(207) 861-3900.
www.johnnyseeds.com.

Klehm's Song Sparrow Farm & Nursery, Avalon, WI.
(800) 553-3713.
www.songsparrow.com.

Park Seed Co., Greenwood, SC. (800) 845-3369. www.parkseed.com.

Pinetree Garden Seeds, New Gloucester, ME. (888) 52-SEEDS.
www.superseeds.com.

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

Roots & Rhizomes, Randolph, WI.
(800) 374-5035. www.rootsrhizomes.com.

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

Wayside Gardens, Hodges, SC.
(800) 845-1124.
www.waysidegardens.com.



Rosa 'Julia Child'

ple anthers. Each grows only three to four feet tall making them an ideal solution for smaller garden spaces and containers. Distributed through Hines Horticulture (www.hineshort.com), the Patio Clematises are selected for their vigor, disease resistance, and prolific flowering habit.

On the rose front, there's *Rosa* 'Julia Child' (Zones 5–9, 9–1), a 2006 All-America Rose Selection (AARS) hybridized by Tom Carruth for Weeks Roses, and selected personally by the late culinary grande dame herself. A very full, old-fashioned, buttery gold floribunda with three-and-a-half-inch blooms that smell of anisette and spice seems fitting for a chef *extraordinaire*. The three-and-a-half-foot plants have a rounded habit, super glossy leaves, and great disease resistance.

Conard-Pyle of West Grove, Pennsylvania (Star® Roses, www.starroses.com), has a new Romantica® climber, *Rosa* White Eden™ ('Meiviolinsar'). The old-fashioned, creamy white, five-inch blossoms take on a light pink hue in cooler weather and have a classic rose fragrance. They are perfect for cutting. Another Conard-Pyle offering is a 2006 AARS winner, *R.* Rainbow Sorbet™ ('Baiprez') an everblooming, four-to-five-foot-tall disease-resistant floribunda in shades of bright yellow, orange, and red, finishing to a dramatic yellow-pink with long strong stems. Conard-Pyle has also just given birth to Double Knock-Out® rose, as red and disease-free as its single sister. All the above grow in Zones 5 to 9, 9 to 1.

From David Austin (www.davidaustinroses.com) come several new English roses, including Harlow Carr™ ('Aushouse', Zones 4–9, 9–4), which offers densely-



Rosa Harlow Carr™ 'Aushouse'

petaled flowers of deep rosy pink with "old rose" fragrance. Described as a tough, repeat flowering rose, it grows to four by three feet with a rounded habit.

SHRUBS AND TREES

Hoping to repeat the incredible success in 2004 with the repeat-blooming Endless Summer® hydrangea, Bailey Nurseries (www.baileynurseries.com) is introducing a selection named Endless Summer® Blushing Bride (*Hydrangea macrophylla*, Zones 4–9, 9–4) with pure white blossoms that mature to a blush pink or blue depending on soil acidity. Bred by the University of Georgia woody plant guru Michael Dirr, this new selection is said to rebloom even more prolifically than the original.

For those who prefer lacecap hydrangeas, Heronswood Nursery presents *H. serrata* 'o Amachi Nishiki' (Zones 6–10, 10–6). Its reddish-pink, mid- to late-summer flowers show off well against



Hydrangea macrophylla Blushing Bride



Sambucus nigra 'Eva' (Black Lace™)

bright green-and-white-mottled leaves.

Proven Winners (www.provenwinners.com) is introducing *Caryopteris incana* Sunshine Blue™ ('Jason', Zones 5–9, 9–1) for late summer show. Displaying chartreuse foliage and rich blue flowers, this fast-growing upright shrub reaches three feet. It is available from Klehm's Song Sparrow Farm and Nursery. Another from Song Sparrow that Proven Winners considers very promising is *Caryopteris × clandonensis* Petit Bleu™ ('Minibleu'), a compact form with glossy dark green leaves and floriferous deep blue blossoms.

Another Proven Winners introduction getting a lot of press is the Black Lace™ elderberry (*Sambucus nigra* 'Eva', Zones 4–7, 7–1). Deeply dissected purple-black leaves threaten to challenge your Japanese maple to a beauty contest, and showy pink, lemon-scented flower cymes followed by blackish red autumn berries make it sound like a winner. The fruit is good for elderberry jam or wine if you can beat the birds to the bush. A sunny site with moist soil will keep your elderberry happy.

Hines Horticulture is tempting gardeners

with 'Summer Chocolate' mimosa (*Albizia julibrissin*, Zones 6–10, 10–6), a rare, burgundy-colored foliage mimosa originally developed in Japan. In late summer, tufts of cotton-candy colored blooms fill the air with a strong, sweet fragrance. 'Summer Chocolate' grows to 20 feet high and 15 feet wide.

For small garden spaces or containers, consider a new series of dwarf crape myrtles developed by Michael Dirr. The five Razzle Dazzle™ crape myrtles (*Lagerstroemia* hybrids, Zones 7–10, 10–7) come in

Cherry, Pink, Raspberry, Ruby, and Snow—all with Dazzle as part of their trademark name. All develop a compact, mounded habit and are pledged to be mildew resistant.

And if you're looking for a ground cover for a tough, dry site, check out 'Autumn Amber' prostrate sumac (*Rhus trilobata*, Zones 4–8, 8–1) from High Country Gardens (www.highcountrygardens.com) in Santa Fe, New Mexico. Described as a welcome alternative to creeping juniper, 'Autumn Amber' grows to a foot and a half tall and up to eight feet in diameter. It has glossy green leaves that turn yellow in autumn and chartreuse flowers in spring.



Lagerstroemia 'Dazzle Me Pink'

EAT YOUR VEGGIES

It's all about color this year in the high fashion world of vegetables. Burpee has a meaty, flavorful potato 'All Blue' (a.k.a. 'Russian Blue'), with purple skin and inner blue flesh (it turns pale when cooked), reputed to be the best blue potato for most gardens; 'Purple Dragon' carrots, which are purple on the outside and orange on the inside; 'Ruby Queen' corn, extra-sweet, tender, and red; and, of course, a rainbow of delicious tomatoes, starting with 'Red Lightening' a "tie-dyed" variety, meaty and flavorful. 'Yellow Magic' looks more like a bright blond bell pepper, but it is, indeed, a mouth-watering tomato.

Conversely, it's the absence of color that distinguishes the 'Ghost' pumpkin (*Cucurbita maxima*, Zones 0–0, 12–1) from Thompson & Morgan. This "white"-skinned pumpkin is being marketed as a "Halloween pumpkin with a twist." It produces several six-pound fruits that mature in 110 days from seed.



'Super Bush' tomato

Renee's Gardens' 'Super Bush' tomatoes are specially bred for high yields of heavy, juicy-sweet fruits with rich tomato flavor on space-saving three-foot plants—perfect for pots and patio containers.

TOUGH ACT TO FOLLOW

And while you're thinking about trying some of these plants this coming spring, little elves are already knocking themselves out trying to conjure up novel and better plants for next year to feed your relentless plant lust. Don't you feel just a little guilty making them work so hard? No, neither do I.

Free-lance writer Ilene Sternberg tests new plants rigorously in her garden in West Chester, Pennsylvania.

a Gift of Gardens

Noted garden philanthropist Enid Annenberg Haupt leaves a grand legacy of beauty for all to enjoy.

BY RITA PELCZAR

ALTHOUGH SLIGHT OF build, Enid Haupt cast a significant shadow, and within the nurturing shade of her largesse, gardens and green spaces across the country have flourished. Mrs. Haupt, who died last October at the age of 99, has been called the greatest benefactor of modern horticulture, and through her gifts, she has shared her joy of gardening with the world.

A socialite, heiress, art collector, and scion of the Annenberg publishing empire, she mingled comfortably with the rich and famous as well as with the construction workers who built the conservatories she financed and the gardeners who maintained them. Her love of plants and nature inspired her generous support of gardens and horticultural institutions.

Enid Annenberg was born in Chicago in 1906, the fourth of eight children of Sadie and Mosses Annenberg. She grew up in Milwaukee, where her lifelong interest in gardens began; the family later moved to New York. In 1936, she married Ira Haupt, a Wall Street financier; their marriage lasted until his death in 1963.

Early in her career, Mrs. Haupt worked at one of her father's newspapers, *The Philadelphia Inquirer*, and during World War II, she wrote and broadcast for the Office of War Information. In 1954 she became publisher and editor-in-chief of *Seventeen* magazine, another family holding, a position she held for 15 years. Mrs. Haupt spent the last five decades of her life supporting museums, hospitals, gardens, and horticultural institutions with gifts that totaled \$140 million.



FUNDING AN ACCESSIBLE GARDEN

Her first garden donation was the Glass Garden at the New York University Medical Center, which opened in 1959. Constructed to provide patients and their families with an oasis where they could get away from the sterile environment of the hospital, it was the first conservatory designed for wheelchair accessibility.



Nancy Chambers, the garden's director, recalls speaking at an auxiliary meeting at the institute several years ago where she summarized the garden's history, current status, and future plans—including expanding the accessible garden outside. Chambers was unaware that the woman who had arrived late, whom she had directed to the back of the room, was Enid Haupt. At the end of Chambers's presentation Mrs. Haupt spoke up, "Here I am in my own back yard and you say you need a garden. Well, you shall have your garden." The 4,500-square-foot perennial garden located on the south side of the conservatory was funded in 1991.

Top: Sporting a pair of her favorite lavender-tinted glasses, Enid Haupt strolls through her namesake garden at the Smithsonian Institution in the late 1980s.

Left: Mrs. Haupt participates in the 1959 ribbon-cutting ceremony celebrating the opening of the Glass Garden, a wheelchair-accessible conservatory funded by her first major gardening gift.

RIVER FARM: A NEW HOME FOR THE AMERICAN HORTICULTURAL SOCIETY

American Horticultural Society (AHS) members have cause to be thankful for Mrs. Haupt's role in one particular dramatic garden rescue in 1973.

The story unfolded in the early 1970s when Malcolm Matheson, Jr. decided to sell his Virginia estate, a mansion and 25 acres on the Potomac River near Mount Vernon. The Soviet Union's Embassy expressed interest in purchasing the property for use as a retreat for its staff. This came at the height of the Cold War and, because the estate—then called Wellington—had once been owned by George Washington, there was a strong public outcry against the sale. At the request of the Department of State, the Matheson family withdrew the property from the market.

Enter Enid Haupt, who was then a member of the AHS Board of Directors. With her donation of \$1 million, the AHS purchased the property in February 1973 for use as its national headquarters.

At the official opening and dedication of River Farm as the national center for horticulture on May 1, 1974, Mrs. Haupt was

joined by First Lady Patricia Nixon and more than 300 dignitaries and AHS officials, including AHS President David Leach.

In 1994, the AHS honored Mrs. Haupt with its most prestigious award, the Liberty Hyde Bailey medal, in recognition of her generous gifts to build, restore, and maintain gardens across the country.

"At River Farm, Enid Haupt preserved an extraordinary parcel of land for generations to come," says AHS President Katy Moss Warner. "Her vision inspires us as we strive to make this special place a national center for American Horticulture." —R.P.



Above: First Lady Pat Nixon arrives at River Farm for the opening day ceremony in 1974. Right: AHS President David Leach addresses guests and the media in front of the Estate House as Mrs. Haupt looks on.



Such generosity and decisiveness was balanced with an astute sense of business. "She knew how much a garden should cost," says Chambers. "She was a strong, hard-nosed business woman." And her demand for quality has paid off—55 years after its opening, the conservatory still operates with all its original equipment.

HISTORIC LANDMARK RESCUE

In 1978, the historic Victorian Conservatory at the New York Botanical Garden (NYBG) was a wreck. "It was falling down, about to be condemned," says NYBG President Gregory Long. Stepping in, Mrs. Haupt contributed \$5 million to save the national landmark. The conser-

vatory was stabilized and usable—at least temporarily.

By 1990, it was clear that another major reconstruction would be required. Anticipating her displeasure at the additional expense, Long spoke to Mrs. Haupt and recalls her casual reply, "Oh I'm not upset, darling. You've obviously never had greenhouses."

During this second phase of reconstruction Mrs. Haupt was very much involved in the often complicated arrangements required in restoration of a historic landmark, including negotiations with local and federal government agencies and decisions about historic fabric and design. "Four thousand plants had to be taken out of the building, including 60-foot palm trees," says Long. "She watched all that." The conservatory was closed for three years, during which it was completely dismantled. Long

Haupt funded the restoration of the Victorian Conservatory at the New York Botanical Garden, which was renamed in her honor.





Mrs. Haupt, photographed here at the New York Botanical Garden in the early 1980s, actively participated in the construction and development of the gardens she funded.

recalls walking the construction site with Mrs. Haupt during this time, and her musing that after spending \$15 million, the building wasn't even there!

As the new conservatory rose, Mrs. Haupt was a frequent visitor. "The construction workers loved when she came, and she knew it," says Long. The scaffolding for the 90-foot-tall center dome of the conservatory rose 100 feet. On one of her visits, Mrs. Haupt, accompanied by a worker, climbed to the top. She was in her 90s.

The newly restored conservatory reopened in 1997. Haupt continued her support, funding exhibitions, flower shows, and an endowment to defray operating costs. She served on the NYBG Board

from 1975 until her death, and the conservatory bears her name in perpetuity.

SMITHSONIAN CONNECTION

In 1984, as then Secretary of the Smithsonian Institution S. Dillon Ripley was planning a new formal garden for the 4.2-acre quadrangle area near the Smithsonian Castle in Washington, D.C., he asked Mrs. Haupt if she might consider funding a portion of it. After substantial discussion with Ripley and the architect, Jean Paul Carlihan, she insisted on funding the entire project. She also provided an endowment for its maintenance.

As the scheduled garden construction neared completion, Mrs. Haupt visited the

site. "We had arranged for several means of conveyance," recalls Paul Lindell, landscape architect for the Smithsonian, including a golf-cartlike surrey. Despite the four to six inches of dust, Lindell says, Mrs. Haupt insisted on walking through the site, "dressed to the nines and in her patent leather shoes." Upon completing her walk, she stated that she thought the opening should be postponed until the following spring. "She was a very 'hands-on' person," says Lindell, "and she had very high standards." The Enid A. Haupt Garden was formally dedicated on May 2, 1987.


"She knew exactly what she wanted, and she was willing to pay for it," says Nancy Bechtol, chief of horticultural services at the Smithsonian. "She used to come by unannounced, and she didn't miss a stitch." Bechtol recalls getting notes from her expressing dissatisfaction when she deemed the begonias or geraniums not sufficiently floriferous.

A LENGTHY LEGACY

Enid Haupt contributed to many other gardens and horticultural organizations. She funded the purchase of River Farm for the American Horticultural Society (see the sidebar on page 21), and was an early contributor to what is now the Ladybird Johnson Wildflower Center in Austin, Texas.

She endowed fellowships through the Smithsonian to encourage the study of, and professions in, horticulture. Her gifts have provided for the maintenance of The Cloisters—the gardens at the Metropolitan Museum in New York City—and the cultivation and display of orchids at Monet's Garden in Giverny.

Her generosity and interests extended beyond gardens and horticulture—she made major gifts to museums and libraries and funded medical research.

It is, however, her gifts to the gardening world for which she will be remembered best. "Enid Haupt was a great visionary who understood the importance of protecting the beauty of our American landscape—both the natural beauty and the cultivated beauty," says AHS President Katy Moss Warner. "The legacy she leaves to gardeners continues to grow." 



Mrs. Haupt contributed \$1.5 million to construct the Smithsonian gardens in Washington, D.C., that bear her name, and an equal gift to ensure their continued maintenance.

Rita Pelczar is a contributing editor for The American Gardener.

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Preventive measures, physical controls, and alternative herbicides provide a winning strategy in the ongoing battle with weeds.

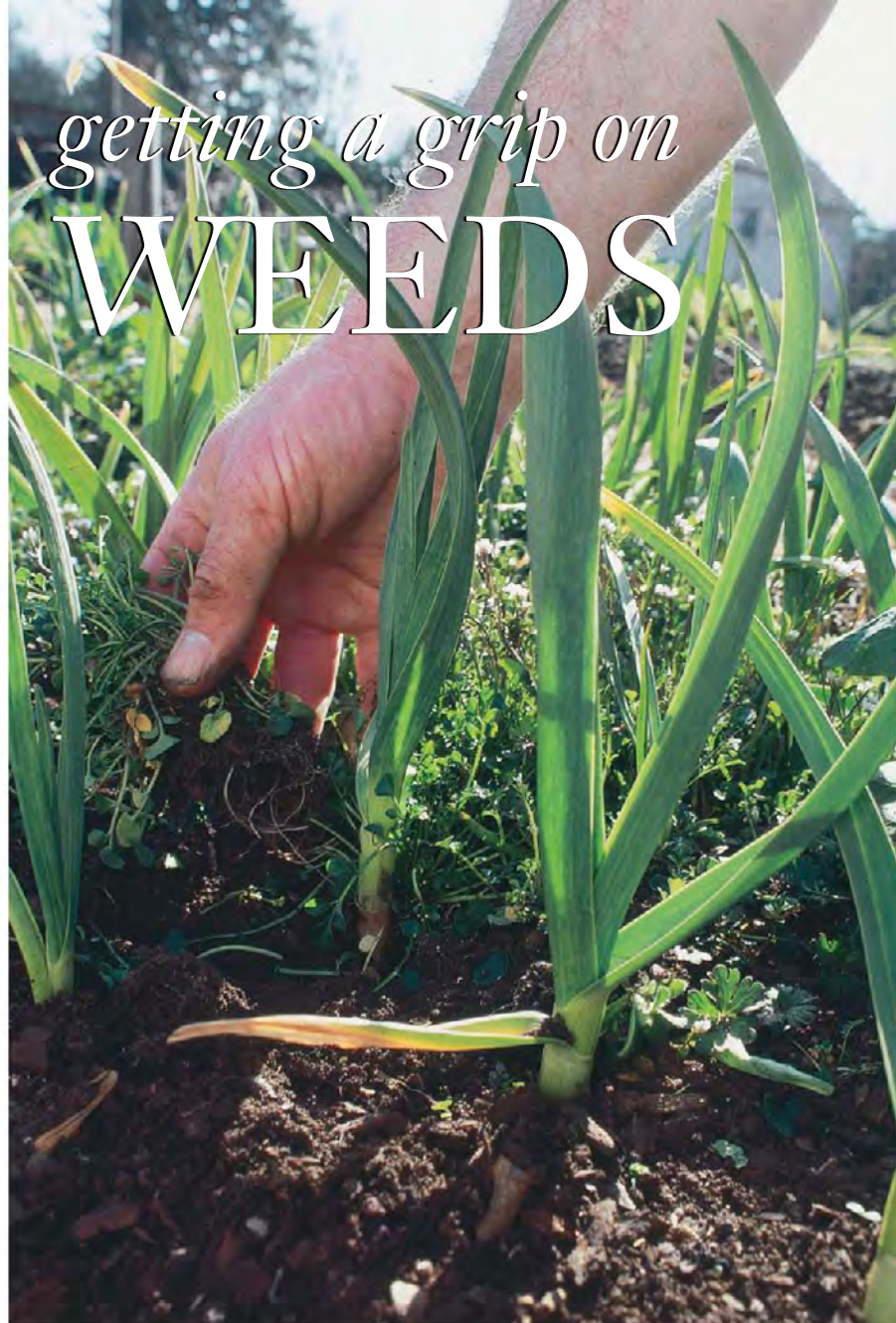
BY KRIS WETHERBEE

LET'S FACE IT. Weeds are a continual presence whether they pop up in lawns, ornamental plantings, beds and borders, vegetable patches, or in the cracks between stone paths and brick walkways. Weeds can disrupt the aesthetics of your overall landscape design and they vie with cultivated plants for available water, nutrients, sunlight, and space. And many compete with a vengeance. This can leave the population of desirable plants weakened, less productive, and more susceptible to disease.

The appearance of a few random weeds in the landscape is tolerable; after all, who needs perfection? And a few weeds may actually benefit your garden—some provide nectar and pollen and serve as alternate hosts for beneficial insects that help check populations of plant-consuming insects. But when weeds threaten a hostile takeover of your garden, it's time to consider your options for cracking down on the truly aggressive invaders.

Although there are circumstances where chemical herbicides may be necessary, they should always be viewed as a last resort. In addition to adding considerable cost to gardening, they can be counter-productive to a comprehensive weed control plan.

William Quarles, executive director of the Bio-Integral Resource Center (BIRC) and managing editor of *Common Sense Pest Control Quarterly*, says that chemical herbicides can create more problems when, "either weeds become resistant or that continued use changes the weed spectrum so that susceptible annual weeds are killed, and more difficult perennial weeds invade the area." As a result, weeds may actually gain ground in your garden.



Fortunately, there are many preventive measures and ecologically safe procedures that will help keep problem weeds under control. Using several of these methods in combination yields the best results. You rarely need an onslaught of toxic chemicals to make weeds retreat if you have sound defense and a well-conceived attack plan.

THE NATURE OF WEEDS

In down-to-earth terms, a weed is simply any plant that is unwelcome, unattractive, or out of place. But not all weeds are equal. Perhaps it's time to distinguish between the occasional nuisance and a truly troublesome weed.

Any plant should be considered a wicked weed when it grows aggressively, reproduces with abandon, and easily displaces more desirable plants. Some, like bindweed (*Convolvulus arvensis*), are more invasive than others—and extremely difficult to eradicate. Self-sowers like purslane (*Portulaca oleracea*) are incredibly prolific, dispensing as many as 50,000 seeds in a single season. And some weed seeds, like those of ragweed (*Ambrosia artemisiifolia*) and black mustard (*Brassica nigra*) can remain viable in the soil for decades.

Weeds can invade yards by many means. Their seeds are spread by wind, water, or animals. Weed seeds, roots, and

Above: In tight places, where cultivation is impractical, pulling weeds by hand is necessary. Here little western bitter cress (*Cardamine oligosperma*) is removed from a bed of elephant garlic.

seedlings can gain free entry via purchased plants, manures, soil, and the soil amendments that we bring into our gardens. No matter how they get there, the first step in developing a control strategy is to determine how they propagate.

Annual weeds like redroot pigweed (*Amaranthus retroflexus*), ragweed, and crabgrass (*Digitaria* spp.) are prolific seed producers. Crabgrass alone can set as many as 150,000 seeds in one year. It also spreads by stolons, creeping horizontal stems that form roots and new plants along their length. But annual weeds survive winter only as seed; prevent seed formation, and you seriously reduce next year's re-infestation. And most annual weeds are shallow-rooted so they are fairly easy to control by cultivation or hand pulling.

In addition to setting seeds, many perennial weeds multiply in other ways, complicating control measures. Some proliferate by bulbs, underground stems called rhizomes, or by stolons. Many die back to the ground in winter, but their roots persist from year to year so that, left unchecked, perennial weeds can become firmly established and difficult to eradicate.

AN OUNCE OF PREVENTION

Whether weeds spread by seed or invade beds and borders via rampant rhizomes,

COMMON WEEDING MISTAKES

Leaving bare soil uncovered. Whenever there is bare soil coupled with moderate soil temperatures, you've got the makings for an invasion.

Using raw animal manure or hay. Hay and most animals manures contain weed seeds and should be thoroughly composted in a hot pile (160 degrees) before use. Horse manure is best avoided altogether.

Applying fertilizer improperly. When you fertilize the entire bed rather than the specific plant, you also feed neighboring weeds.

Pulling weeds and leaving them on the soil. Flowering annual weeds like purslane can continue to develop and dispense their seeds. Perennial weeds can easily re-root or grow new plants from pieces of root that break apart.

Delaying action. Don't let annual weeds go to seed or allow perennial weeds to become established before dealing with them.

—K.W.



Bare soil is an open invitation for weeds; always cover it with mulch or plants.

runners, or roots, the best way to control them is to prevent them from ever gaining ground. Garden design and growing techniques aimed at tipping the balance in favor of desired plants are at the forefront of prevention.

Weeds are opportunistic and fierce competitors. Because many adapt readily to less-than-ideal conditions, soil compaction, erratic watering, and improper cultivation favor weed development. But soil rich in organic matter and nutrients



Weeding is most effective if the undesirable plants are removed before they have a chance to set seed. The seeds of some weeds, like those of purslane (*Portulaca oleracea*), left, are produced in tens of thousands, while those of black mustard (*Brassica nigra*), shown above, can remain viable for decades.

and a consistent water supply will foster strong, healthy garden plants that are capable of competing with invasive weeds. The key is to nurture the desired plants, not the weeds.

For example, overhead watering and sprinkler systems supply both weeds and plants with water. In contrast, drip irrigation and soaker hoses are much more restrictive in the area they cover, delivering moisture right to the root zones of targeted garden plants rather than nearby weeds.

Improper cultivation can inadvertently multiply weeds. Rototilling brings up buried seeds to the top one to two inches of soil where most weed seeds germinate, it also chops roots, rhizomes, and stolons into tiny pieces that can generate new plants. Unless the sprouting weeds are pulled or killed with subsequent shallow cultivation, the weed presence increases.

You can also design weeds out of your landscape by growing plants close together. Close spacing creates a dense canopy of leaves that acts as a living mulch, shading the soil from sunlight so weed seeds are less likely to germinate. Starting your garden with transplants rather than sowing seeds is another useful strategy because the leafy shade develops more quickly.

When you're waiting for newly planted perennials to fill in, cover up the empty spaces with fast-growing annuals, like sweet alyssum (*Lobularia maritima*), garden verbenas (*Verbena x hybrida*), or petu-



Grouping plants closely together in a bed is one way to prevent weeds from establishing.

nias. Maintaining a mow strip—a paved, brick, or stone surface—between lawns and beds and under fences helps prevent weed intrusion and reduces maintenance.

Organic mulches are an effective way to prevent weeds from popping up. A four-inch-thick layer of mulch will blanket the soil so seeds have difficulty germinating, and the few seeds that do manage to surface are easily pulled. Good sources include lawn clippings, shredded leaves, bark mulch, aged sawdust, compost, nut or seed hulls, or even layers of newspaper or old carpeting. One relatively new con-

cept that I've been using for years in my own garden is sheep's wool. It makes ideal mulch; it's easy to spread and is quite dense, yet allows air, water, and nutrients to pass through to plant roots. Wool is also slow to decompose, but when it does, it serves as a great source of nitrogen and trace minerals.

Perennial weeds often push up through organic mulches, although sheep's wool is a good deterrent for most perennial weeds, especially the grasses. Covering the ground first with a synthetic barrier followed by a thin one- to two-inch layer of



Above: These organic mulches (from top right: wood chips, evergreen bough, hay, shredded bark, and straw) help prevent weed seed germination.

Right: A layer of landscape fabric covered with organic mulch will keep this bed relatively weed-free all season.



TOP: MARY YEE. BOTTOM LEFT: RICK WETHERBEE. BOTTOM RIGHT: SAXON HOLT.

NORTH AMERICA'S PROBLEM WEEDS BY REGION

NORTHEAST

"Garlic mustard (*Alliaria petiolata*), goutweed (*Aegopodium podagraria*), and several species of *Ranunculus* (*ficaria*, *sceleratus*, and *repens*) top my list for worst weeds in the Northeast," says Rolf Schilling, horticulturist with the New England Wild Flower Society. "Garlic mustard and ranunculus are native; goutweed is a nonnative noxious weed that is still sold by nurseries in variegated form. Beware, because the variegated plant can revert to its original form, and it is very aggressive." Schilling suggests smothering ranunculus and goutweed under black plastic—one season for the former and two or three seasons for the latter—then digging them out. Pull garlic mustard up by its roots before it goes to seed.

WEST

Horsetail (*Equisetum arvense*) and morning glory or bindweed (*Convolvulus arvensis*) are the two worst garden weeds in the West, according to Marianne Binetti, garden writer and lecturer. "I cut them off at ground level whenever I see them," she says. "It takes about three cuts to starve out those roots." [Editor's note: As a last resort, the herbicide dichlobenil will kill horsetail, but it should be used with extreme caution and never applied near food crops.]

MOUNTAIN REGION

"*Convolvulus arvensis* is undeniably the most universal and pernicious of weeds in many gardens," says Panayoti Kelaidis, director of outreach at the Denver Botanic Gardens. "It doesn't seem to be killed outright by herbicides; it just retreats a bit, then comes back with a vengeance." Contact herbicides such as glyphosate may help quell bad infestations, says Kelaidis, but he urges gardeners to follow label directions carefully if they use such products.

Kelaidis also rates several thistles high on the noxious list: "Scotch-type thistles (*Onopordum acanthium*, etc.) can be eliminated with diligent weeding because they are biennial," he says. "Get them before they bloom. Bull and Canada thistles, especially *Cirsium arvense*, spread rapidly from rhizomes and are harder to eliminate."

SOUTHEAST

"Nutsedge (*Cyperus esculentus*) was a terrible problem when I gardened in northern Florida, and I see it as a major problem in many other southern areas," says Richard Bir, a retired horticulturist with North Carolina State University. "I'm not sure it will ever be eradicated completely from my garden, but if I pull it whenever I see it, it generally stays under control in the vegetable garden, and mulching plus pulling it works well in the flower borders."

SOUTHWEST

"Six-week grass (*Schismus barbatus*), London rocket (*Sisymbrium irio*), and spurge (*Euphorbia* spp.) are the worst weeds here," says Mary Irish, a writer and lecturer specializing in native plants. "Hand pulling is my preferred method to eradicate them. I also advise people to at least get rid of the flower before it sets seed to try to hold down future generations." Irish also recommends using full strength, white vinegar on weeds in hard-to-reach places such as between stepping stones or along pavement edges.

MIDWEST

Goutweed (*Aegopodium podagraria*) and creeping bellflower (*Campanula rapunculoides*) both have an underground network of stems, and once they get into a garden they're quite difficult to remove," says Ed Hasselkus, emeritus professor of horticulture, University of Wisconsin. Hasselkus says hand digging is the most effective means of control. "Don't pull them up, because you won't get all the roots; *Campanula* has a carrotlike root that has lots of storage capacity and can easily resprout."

Written by Joanne Wolfe, contributing editor for The American Gardener.



Aegopodium podagraria



Equisetum arvense



Convolvulus arvensis



Cyperus esculentus

mulch helps keep many perennial weeds under control. Thick plastic sheeting and landscape fabrics—available as spun-bound, woven or non-woven materials—provide a great physical barrier to weeds. Landscape fabrics usually last longer than plastic, plus they allow water, air, and nutrients to penetrate.

Soil solarization is a great technique for weed control when breaking new ground, establishing new beds, or where annual vegetables and flowers are exclusively grown. The soil is cultivated to bring weed seeds to the point of germinating, then cooked so seeds die as they sprout. This is accomplished by rototilling (which brings weed seeds to the surface), watering thoroughly, then covering the area with a three- to six-millimeter clear plastic sheeting that has been secured around the edges. It takes four to six weeks to do a thorough job.

Corn gluten meal (CGM) is a protein-based, natural product that prevents root formation in germinating seeds. As a non-toxic pre-emergent herbicide, it is marketed under several names such as Safe 'N Simple™, WOW™, and WeedzStop™. "It is more effective as a pre-emergent when incorporated into soil than when used as a top dressing," says Quarles. It is non-selective so don't use it on a newly seeded lawn.

Timing can be tricky since CGM is only effective when applied before seeds germinate. "The idea is to apply it, water it in a few weeks before annual weeds germinate, then let the area dry out so that the sprouting seeds will die due to lack of a root system," explains Quarles. Applications vary somewhat among the CGM products, so follow the instructions on the label for best results.

CGM studies have supported its effectiveness in the Midwest. But Linda Chalker-Scott, a horticulturist and associate professor at Washington State University's Puyallup Research and Extension Center, says that it doesn't work as well in other climate zones, such as those found in the western part of the country. She notes there are other environmentally safe treatments that are often more effective for controlling weeds, such as sub-irrigation, mulch, and soil solarization.

A POUND OF CURE

When weed prevention has slipped



A sharp hoe is great for weeding between rows in a vegetable garden.

through the cracks, or too many weeds have grown through the cracks, it's time to take action. Hand weeding is always easier and more productive when the ground is moist, and cultivating or surface hoeing is best when the ground is somewhat dry so any seedlings left on top of the soil are less likely to re-root.

Hoeing effectively dispatches young annual weeds and tiny, newly germinated

seedlings. Some hoes slice just below the surface while other hoes—commonly called stirrup or scuffle hoes—are scraped across the surface. Regardless of type, keep the blade sharpened for efficient use. Annual weeds with strong root systems will likely require repeated hoeing.

For weeds with persistent roots the entire plant should be removed so a shovel or mechanical weeder are the tools of



For deep-rooted weeds like dandelions, use a specialized tool that will help get all the roots. Such hand weeding is much easier when the soil is damp.

choice. Mechanical weeders come equipped with long handles that allow you to stand while pulling out weeds. The sharp tines or prongs grip the weed, extracting the plant and its roots—at least, most of the roots—as you pull it out of the ground. A shovel or spading fork work best for perennials that spread, such as bindweed or Canada thistle. Just be careful to get as many of the roots and runners as possible.

Pulling weeds by hand—preferably, a gloved hand—is another option. Use a trowel, hand fork, or a weed-pulling tool with a forked end to dig under the roots, especially for perennials. Dispose of weeds in a compost pile—vegetative parts of



Old-fashioned vinegar will kill many weeds but is non-selective, so apply with care.

many perennials can re-sprout if left on the soil surface. Unless your compost is very hot, dispose of weeds that have gone to seed elsewhere.

Speaking of heat, how about putting weeds under fire? Weed flaming works by heating plant cells so they rupture, causing the plant to die within a few hours, although they may not actually look dead for a couple of days. The heat is non-selective, with young plants being most susceptible to this scorching technique. A single two- to three-second pass with

the flamer usually kills small broadleaf annuals; perennial weeds may require repeated treatments. Flamers are an excellent tool for weeding along fences, in cracks between pavers, in lawns, and around trees and shrubs. Use with great care, or you'll scorch the fence and trees and shrubs, and never use a flamer in a bed covered with organic mulch—for obvious reasons!

Weeds can also be killed with water—boiling water, that is. Applied with a tea kettle to invading vegetation that crops up between bricks and pavers, it is both effective and inexpensive.

If you'd rather reach for an herbicide to wipe out your weeds, there are several non-toxic choices. These are non-selective, killing by contact any plants on which they are sprayed. They do not have a residual effect.

Soap-based herbicides are combinations of fatty acids and salts; they are best applied when temperatures are above 70 degrees Fahrenheit. Vinegar (five percent acetic acid) will control many weeds and is great for use between pavers and bricks. Quarles suggests that “best effects are seen when weeds are small, and it is applied in conditions where sunlight and heat are available to desiccate the weeds.”

Products with a higher concentration of acetic acid, such as Burnout, have proven even more effective. “Higher concentrations of acetic acid can burn skin and eyes and can be a hazard if not handled properly,” warns Quarles.

Other alternative herbicides include clove oil (eugenol), cinnamon oil, and citric acid, often in combination with acetic acid. Most control both annual and perennial weeds, though best results are obtained when spraying weeds while young and actively growing, and repeated applications may be necessary.

You'll never win the war against weeds. However, with a good offense and a back-up defensive plan in hand, you'll be well equipped to win the important battles and then simply manage the rest.

Kris Wetherbee battles weeds organically in her garden in Oakland, Oregon. She and her husband, Rick, a photographer, recently collaborated on Attracting Birds, Butterflies & Other Winged Wonders to Your Backyard (Lark Books, 2005).

Sources

American Natural Products Co., Fairfield, IA. www.americanatural.com.

■ Corn gluten products; vinegar-based herbicides.

Gardens Alive, Lawrenceburg, IN. www.gardensalive.com.

■ Corn gluten products; non-toxic herbicides.

Gardener's Supply Company, Burlington, VT. www.gardeners.com.

■ Corn gluten products; vinegar-based herbicides, weeding tools.

Gardenscape Tools, Toronto, Ontario, Canada. (416) 698-5339. www.gardenscapetools.com.

■ Weeding tools.

Hound Dog Products, Edina, MN. www.hound-dog.com.

■ Weeding tools.

Peaceful Valley Farm Supply, Grass Valley, CA. (530) 272-4769. www.groworganic.com.

■ Organic mulches (including wool), landscape fabrics, weed flamers, citric acid spray.

Resources

Bio-Integral Resource Center (BIRC), PO Box 7414, Berkeley, CA 94707. www.birc.org.

The Gardener's Weed Book by Barbara Pleasant. Storey Publishing, North Adams, Massachusetts, 1996.

The Gardener's Guide to Common-Sense Pest Control by William Olkowski. Taunton Press, Newton, Connecticut, 1996.

Solving Weed Problems by Peter Loewer. Lyons Press, Guilford, Connecticut, 2001.

Weedless Gardening by Lee Reich. Workman Publishing, New York, New York, 2001.

D. Landreth Seed Co.

*the fall and rise of
an American classic*



The remarkable story of a company that grew to influence the world, and the vision and dedication of a woman who refuses to let this national treasure vanish.

BY PAMELA BAXTER



IF YOU'RE LOOKING FOR a true heirloom, you don't have to look any further than the D. Landreth Seed Company, and not just because the company specializes in heirloom vegetables and flowers. Rather, at the ripe old age of 222, the company itself deserves the label.

Founded in 1784, the D. Landreth Seed Company soon became known throughout America and around the world as the grower and purveyor of the finest seeds available anywhere. The company not only sold seeds to founding fathers George Washington and Thomas Jefferson, it also has the distinction of having sold seeds and plants to every president from Washington to Theodore Roosevelt.

President James Monroe purchased linden, spruce, hemlock, and magnolia trees from the company in 1820 to be planted in Philadelphia's Independence and Washington Squares. Many estates, including Washington's Mount Vernon and Jefferson's Monticello, planted their grounds with Landreth trees; some of these fine old trees are still standing.

By 1830, when British India placed its first seed order, Landreth was truly a global company. One of Landreth's early catalogs noted that, "Shipments of [the company's] seeds are as regularly made for planting on the shores of the Ganges and the Bay of Bengal, as to those of the Mississippi and Ohio." To supply the increasing demand, the company established additional seed farms in New Jersey, Vir-

Left: The colorful cover of Landreth's spring 1902 catalog. Top: New owner Barbara Melera displays antique seed packets and equipment from the company's past.



Landreth was a seedhouse giant throughout the 19th century. Far left: A 1896 catalog claims Landreth as “Seedsman to the American People.” Left: David Landreth II. Above: Women operate seed-bagging machines at Landreth in the late 1890s. Below left: Workers store radishes collected in horse-drawn wagons in a barn at the Landreth farm, circa 1890s.

ginia, and Wisconsin for a total of 1,600 acres.

The oldest seed house and the fifth-oldest company in America, the firm remained in the Landreth family until 1942. By the mid-1900s, however, Landreth had lost its original stature and had virtually disappeared.

Fortunately, as gardeners know, good stock does not die quickly. There was life left in Landreth’s roots just waiting for proper care. Under the guidance and inspiration of new owner Barbara Melera, who purchased what was left of the business in 2003, the company has been rescued from six decades of neglect and is making a steady, if quiet, comeback. As the company has re-surfaced, so has much of its 222-year legacy.

A SEED IS PLANTED

In 1780, 29-year-old David Landreth left his home in England for Montreal, Canada, where he intended to establish a nursery business. Finding the Canadian climate too cold for his trade, he relocated to Philadelphia in 1781, a time when “the rearing of garden seed” was a pursuit unknown as a profession in America. In this new country, with its land yet to be



explored and cultivated, the young immigrant’s seeds and nursery stock were immediately in demand.

Landreth’s claim to fame was not based solely on his impeccable integrity and devotion to selling “seeds that grow.” He was passionately interested in plants and pursued new varieties tirelessly. Children everywhere can thank Landreth for introducing spinach to America; a later variety, Landreth’s “Bloomsdale,” remains a standard.

There were many other “firsts,” including Freestone peaches, distributed by Landreth in 1790, and the zinnia, introduced from Mexico in 1798. In 1800, David Landreth established the first trial grounds in America for testing purity of seed stocks. And in 1811, the company in-

“In nothing is the force of habit more evident than in the selection of garden seeds; old kinds, long since exploded and rejected by experienced cultivators, are in request by those but partially informed, and new varieties of value are refused, simply because they are unknown. We have endeavored to discriminate with discretion—have retained good kinds, however old they may be, and admitted nothing new on the scale of novelty alone.”

—From the 1862 “Descriptive Catalogue of the Garden seeds cultivated at Bloomsdale, The Seed ground of David Landreth & Son, Near Philadelphia”

troduced the first really white potato to the United States.

THE COMPANY TAKES ROOT

Aside from the seed business itself, the company put down deep roots. In 1828, David Landreth and his son, David Landreth II, were among the founders of the Pennsylvania Horticultural Society and both served as officers of the organization. In 1832, the elder Landreth published the first floral and horticultural magazine in Pennsylvania.

In 1847, David Landreth II purchased Bloomsdale Farm in Bristol, Pennsylvania, which became the company's new headquarters. He began the publication of an annual *Almanac*, packed with information on how to grow his seeds and cultivate crops for best results. His letters to readers are scrupulously detailed and display an intense commitment to his trade and respect for his customers.

EXPLORATION AND INNOVATION CREATE FURTHER GROWTH

For years, Landreth seeds were everywhere. The company prepared thousands of pounds of seeds for Commodore Perry's 1852 expedition to Japan. On Perry's return voyage, he carried back to Landreth the first Japanese plants ever imported to America.

In 1881, Landreth supplied seeds to General Greeley for the Lady Franklin Bay Expedition, which advanced to within 490 miles of the North Pole. In the arctic climate, few of the seeds produced results. However, in 1899 some of the seeds were "rescued" by members of another expedition. It was a testament to their original quality that, after 16 years in the Arctic, 50 percent of Landreth's radish seeds germinated.

FINDING LIFE IN OLD GROWTH

As the firm was passed down through the family, sold to an outside company, and challenged by increasing competition from other seed companies, its fortunes began to dwindle. By the time Barbara Melera and her husband, Peter, purchased Landreth in 2003, there were few signs of life left in the company. In stark contrast to the company's heyday, only here and there, in independent hardware



Above: Barbara Melera and Lisa Heinstadt, vice president of administration, review the seed inventory. Left Freshly packed tomato seeds ready for retail.



stores across the country, were Landreth seeds still being sold.

A former venture capitalist looking for a company to purchase, Barbara Melera was intrigued when a friend told her about Landreth Seeds. However, her first visit to the company's warehouse—relocated to Baltimore in 1969 by then owner Ben Goldberg—was less than auspicious. Without proper storage facilities for the seeds, the warehouse had become a haven for mice. As Melera describes it, "Mice

were everywhere, practically dancing across the floor."

The picture did not improve when Goldberg handed Melera a dingy box containing the company's history. Fortunately, mice and dirt did not curb Melera's curiosity. She began reading old catalogs and almanacs dating back to 1848. Each almanac began with a long, chatty letter from David Landreth II to potential customers, describing company events and innovations, commenting on how political events—especially those of the Civil War—affected business, and offering plenty of information on how to get the best results from his seeds.

"As I read those letters," Melera says, "I felt the essence of David Landreth. I got such a strong feeling that this company was something that needed to be saved. I

thought, 'People need to know about this.' This—this company and its history—is the essence of what it means to be an American."

THE PROJECT BEGINS

The biggest challenge the Meleras faced was dealing with the integrity of the seed they acquired with the company. Germination tests on hundreds of bags of seed



Landreth is a hands-on company. Here Fred Weimert, Jr., vice president of operations, fills packets with carrot seed using a modern seed-packaging machine.

revealed that about as much was bad as was good.

The second challenge was to develop a catalog. Melera wanted more than a price list: "We wanted our catalog to tell a story about each seed," she says. "The old catalogs didn't have many pictures; rather, lots of words." Contrary to today's "sound-bite" culture, she says, "I think gardeners are inherently readers."

The result is a catalog that provides a link with the company's history and the gardening philosophy of its founder. Scattered throughout the pages are quotes and etchings from early Landreth catalogs, and descriptions and notations from some of the great 19th- and 20th-century botanical treatises.

Melera also wanted artwork to illustrate the flowers and vegetables, and was

WHERE ARE THEY NOW?

The Bloomsdale estate and nursery, which once occupied over 500 acres in Bristol, Pennsylvania, located north of Philadelphia on the Delaware River, was gradually sold off as the business flagged.

In Bristol today, the Landreth legacy can still be seen in street names, a few of the old houses, and the stone wall that enclosed the 1807 barn. The barn—in its day the largest in the United States—burned down sometime in the 1940s as the result of an accidental fire. An elementary school occupies the site of the original estate house.

David Landreth II, planted the estate with trees brought back from around the world. Many of the trees that are still standing have been sought out and recorded by the Bucks County Audubon Society and the Morris Arboretum of the University of Pennsylvania. Scattered throughout the community on individual properties, these majestic 150-year-old specimens include Japanese zelkova (*Zelkova serrata*), bur oak (*Quercus macrocarpa*), pond cypress (*Taxodium ascendens*), golden larch (*Pseudolarix amabilis*), dawn redwood (*Metasequoia glyptostroboides*), and Greek fir (*Abies cephalonica*).



Charlotte Landreth Melville with a copy of the 1858 Almanac.



The Landreth family at Bloomsdale in its glory days.

Charlotte Landreth Melville, 83, a fifth generation descendant of David Landreth, is the only Landreth relative still living in Bristol. The other members of the family moved away 15 to 20 years ago. Melville's cousin, Symington Phillips Landreth, Jr., 55, currently resides in Texas, and cousins Charles and Peter Landreth, in their 60s, live in Philadelphia. None of them ever worked in the seed business. Melville's older cousin, Edward Landreth, was the last surviving family member to work in the seed company. He died recently in New York at age 92 and was buried in Bristol in the St. James Cemetery, where the rest of the family is interred.

—P.B.

fortunate to find a graphic designer who understood her feelings about the company and how she wanted to present it.

RECLAIMING THE PAST

Another delightful challenge for Melera has been to reconnect with long-time Landreth customers. "John A. Williams Hardware is an independent hardware store in Pennsylvania," Melera says. "I got a call from someone who was taking over the Williams family business, and learned that the family had been a Lan-

dreth customer for 100 years. They were glad to know we were still in business and, in fact, growing."

Melera is able to draw from her background in working with start-up companies to rebuild Landreth on solid financial footing every step of the way. She is pleased to have put together a small but dedicated and talented group of investors.

Some of the investors are on the leading edge of technology and entrepreneurship. Some are "avid, avid gardeners, with a huge affection for gardening, who want

For More Information

Landreth Seeds are available online at www.landrethseeds.com. For more information or to request a printed catalog, visit the website or call (800) 654-2407.



to see the company survive.” Melera says, “They are innovators who treasure American history, love gardening, or made their way from an American family business. They represent what David Landreth was always about.”

Supported by these people who share her respect and vision for the company, Melera is confident about Landreth’s future. In making decisions for the company, “I’m drawing on Landreth’s past for Landreth’s future,” she says. She points to advertising as an example. “We’ve expended a lot of human and financial capital in bringing the company from the 19th century into the 21st century. I wouldn’t use capital on flashy advertising. I want grassroots support from gardeners.”

And so Melera finds time to talk to garden clubs, not just about Landreth, but about America’s other old seed houses. She wants to let people see and know the company, let gardeners see that “Landreth is a real thing,” with real people and a deep history; deep roots, so to speak, that gardeners can appreciate.

LOOKING AHEAD

Certainly, Melera wants to make the D. Landreth Seed Company financially sta-

DRAWING ON LANDRETH’S PAST FOR ITS FUTURE

Owner Barbara Melera says that “a lot of my inspiration comes from the three gentlemen who really made the company: David Landreth, David Landreth II, and Burnet Landreth.” She recognizes David Landreth as a businessman in touch with his customers, able to anticipate their needs; son David Landreth II, as taking the broader view, expanding the business far beyond Philadelphia; and grandson Burnet Landreth as “a moralist in the best sense,” who saw growing food as vitally important for everyone. With this in mind, Melera is focusing Landreth’s in three main areas:

Container gardening. Melera believes that if David Landreth could see today’s trend toward downsizing, he’d say, “Find something that will grow in small spaces.” So she’s looking for more varieties suited for containers. Her favorite for 2006 is the **‘Fairy Tale’ eggplant** (shown at right). Says Melera, “The fruits—a beautiful purple with a bit of white stripe—are only three to four inches. You can put three plants in a half barrel and get a lot of eggplant.”

Heirlooms. Melera believes that David II would say, “We need to preserve for the future.” For 2006, Melera is excited to offer the **‘Dr. Carolyn’ cherry tomato**, an heirloom white variety.

Says Melera, “This is the sweetest tomato any of us has ever tasted. After a day of sampling, this one burst on our palates like the first tomato of the day.”

Gardening with Children. Melera imagines that Burnet Landreth would wonder, “Why is gardening being taught to kids like a science class?” Says Melera, “Gardening is really relationship building—with a person, soil, seeds, plants—and that’s something we want to promote.” Her favorite children’s “pick” for 2006 is the tiny **‘Mexican Sour’ gherkin**, with fruits just one inch long. Says Melera, “They’re delicious, and you can just throw them into a salad.”



ble. But she wants much more than that. “I want to build a reputation for this company as one of the main presences in preserving heirloom seeds, including bringing some of the international ‘treasures’ to the United States.”

Part of Melera’s plan is to keep the company small, with every staff member intimately involved in the operation. “I also want to keep the integrity,” she says. “That’s what David Landreth built his business on.”

A seasoned traveler, Melera says she would also love to create a presence in other countries—such as New Zealand, Australia, South Africa, Argentina, and Chile—where gardening is a passion. “It would be great to have Landreth Seeds be part of these cultures where people absolutely love to garden.”

More than anything else, Melera is

committed to bringing this piece of America’s history fully into the present. “I bought this company for its history, but I had no idea what the act of assuming ownership would ultimately do,” she says. “I didn’t realize that the history would be so alive and so much a part of the company today. I want Landreth to find its place in today’s America, in what the economy is today.”

On good days, Melera says she’s euphoric. On bad days, she says, “I worry about letting anything happen to this treasure. I truly consider it an American treasure that I’ve assumed responsibility for, and I feel that responsibility deeply.”

Pamela Baxter is a garden writer and columnist for the Daily Local News in West Chester, Pennsylvania, and a contributor to The Philadelphia Inquirer.



Plant Frenzy

Spring plant sales offer gardeners a chance to purchase uncommon or new plants, mingle with likeminded garden fanatics, and support their regional public gardens. BY CAROLE OTTESEN

TWO CENTURIES AGO, on Prestwold plantation in the isolation of Virginia tobacco country, a transplanted Scottish woman, Jean, Lady Skipwith, surveyed her garden and penned wish lists of “bulbous roots to get when in my power” and “shrubs to be got when I can.” Her poignant wishes are something all gardeners understand: To garden is to crave more and rarer plants.

It is a powerful desire and thoroughly ingrained in human nature. Throughout history, to satisfy the desire to acquire, plant explorers have ventured forth to bag the valuable, the useful, the beautiful, and the unusual. The first expedition to be documented, writes Tyler Whittle, author of *The Plant Hunters* (The Lyons Press, 1997), was “mounted by Hatshepsut, Queen of Egypt, who wanted frankincense, the gum of a tree now called *Boswellia*.” Since then, explorers have scoured the remote places

Top: Gardeners flock to the JC Raulston Arboretum in Raleigh, North Carolina, each spring to learn about and purchase locally appropriate plants. **Above left:** At Scott Arboretum in Swarthmore, Pennsylvania, a plant sale volunteer transports a customer’s purchases in a cart. **Above right:** Nebraska gardeners fill boxes with new plants to outfit their gardens.

FRIENDS OF RIVER FARM 2006 PLANT SALE

This year, the AHS's annual Friends of River Farm Plant Sale is set for April 20 to 22. The sale begins on Thursday with the AHS Members' Preview Sale from 4 p.m. to 8 p.m. On Friday, the sale runs from 9 a.m. to 6 p.m. and Saturday from 9 a.m. to 3 p.m. "Given the success of last year's sale, we expect more than 30 plant vendors this spring," says AHS Horticulturist Peggy Bowers.

As usual, there will be a wide array of plants available, including regional natives, roses, shade plants, herbs, and many trees, shrubs, and vines. Additionally, garden books, gardening tools, and other garden-themed products will be on sale in the AHS Garden Shop.

Proceeds from the sale benefit the grounds and gardens of River Farm. For directions to River Farm and additional information, visit www.ahs.org.



Assorted succulents in stone troughs were among the offerings in last year's sale.

of the earth, risking and, sometimes, losing life and limb in the process. While searching for the regal lily in western China, Ernest Wilson's leg was crushed in a rock slide. David Douglas, whose name provides the specific epithet *douglasii* to many a plant, was gored to death by a wild bull in Hawaii. USDA plant explorer Frank Meyer's body was found floating in the Yangtze River.

A SAFER ROUTE

Today, some amazing plant sales make it possible for anyone to venture forth in relative safety to acquire rare and beautiful plants. It's a lot tamer now, but be forewarned! Finding treasures at a plant sale is still an adventure that succeeds best with fortitude and a little advance planning, and, sometimes, a flexible line of credit.

Most arboreta, botanical gardens, and other horticultural organizations hold sales of unusual plants. Often, they host a members-only sale before the general public is admitted, so becoming a member can be a wise decision. Member days are a time for camaraderie, as members interact with

Membership at many public gardens includes special benefits at plant sales. Blooming pitcher plants were silent auction items on members-only night at the San Francisco Botanical Garden's annual plant sale.

each other and with the organization's staff.

"You see the real crowds on Friday, the members-only day," says Cathy Babcock, director of horticulture at the Desert Botanical Garden (DBG) in Phoenix, Arizona. "We sell 60 percent of our plants on membership night—Friday," says horticulturist Don Mahoney of San Francisco Botanical Garden at Strybing Arboretum. Being a garden member can mean a leg up at purchasing the most desirable plants at a sale, but it doesn't always guarantee suc-

cess. If plants at a sale are extraordinary, buyers will come in droves, making for fierce competition.

"Our sale starts on Friday at five o'clock," says Mahoney. "Normally, the line starts at noon, and by five it is two or three blocks long." One year, members stood in pouring rain for hours, waiting to get in. "To help them with their purchases," says Mahoney, "we borrow 100 carts from the local Safeway." That means the first 100 members in line have an edge; everyone else has to schlep around treasures growing in bulky containers. If they set the plants down, they risk having someone else buy them.

"Every sale I've worked," says Jim Adams, former curator of the herb garden at the National Arboretum in Washington, D.C., "the first hour is just hysteria, with plant nuts waiting to get in and buy. They know what they want, they know how to garden, they buy what they want in the first hour and leave."

While chaos, crowds, and long lines are typical of most sales around the country, there are exceptions. With 32 years of experience, the New England Wild Flower Society (NEWFS) has finally got its spring sale under control.

"Thousands and thousands of people move quickly through the line," says Debra Strick, NEWFS director of public relations. "The sale is the largest in the Northeast and so well orchestrated, it's like going to a ballet." The secret, she reveals,





Plant sales offer opportunities to get rare plants and meet horticultural celebrities. At the Delaware Center for Horticulture's 25th Anniversary Rare Plant Auction, renowned plant expert Dan Hinkley, above, described a specimen of *Paris verticillata* 'Heronswood Form', grown from seeds of plants he found on an expedition to Asia. Right: Windy City™ white ash tree was offered by Chicago Botanic Garden at one of its rare plant auctions.



is "300 volunteers" and plant experts who work the line, answering questions and giving gardening advice.

When plant sales are held at a distance, the heady adventure of a road trip heightens the sense of anticipation. The big plant sale at Rancho Santa Ana Botanic Garden (RSABG) in Claremont, California, draws people from "San Diego to Bakersfield to Ventura and from both the Mojave and Colorado Deserts of California," says horticulturist Bart O'Brien. Transporting the purchases home, however, requires some forethought. Muffin Evans, a Baltimore gardener who traveled to Swarthmore, Pennsylvania, to attend the Scott Arboretum Associates Plant Sale in 2001, filled the back of her sports utility vehicle to capacity. For the 2003 sale, she asked permission to bring a bus.

People have good reasons to travel distances to attend. The species, the array, and the quantities of plants available at some plant sales are simply not to be had elsewhere. In fact, many gardens use plant sales as a launch party for introducing new cultivars. At the Lady Bird Johnson Wildflower Center's fall 2004 plant sale, "We debuted *Salvia greggii* 'Teresa,' a sport someone worked with for years before patenting it," says Anne Tiedt, communications manager.

"Our fall sale is the venue for introducing new cultivars developed by Rancho Santa Ana," says O'Brien. In 2004, the garden debuted *Chiranthofremontia lenzii* 'Falling Stars', *Monardella* 'Moonlight', *Salvia spathacea* 'Confetti', and *Tellima grandiflora* 'Enchantment'.

"We are often able to acquire and offer plants at our sales before they have been made available to the general public," says North Carolina State University doctoral candidate Richard Olsen. Two such plants are *Meliiodendron xylocarpum*, a rare member of the snowbell family, and *Taxodium distichum* 'Cascade Falls', the first weeping bald cypress cultivar.

Olsen is past vice-president of the honorary Pi Alpha Xi (PAX) fraternity, which holds its big sale at the JC Raulston Arboretum in Raleigh, North Carolina, named for the late, great plantsman whose spirit is very much alive at the PAX sale. "We are trying to promote cutting-edge new plants, to focus on rare, unusual, and underused plants," says Olsen. "We'd much rather give people the opportunity to buy a rare plant than make money off of it. That's what JC was about."

Conversely, at the Delaware Center for Horticulture's Rare Plant Auction, held at Longwood Gardens in Kennett Square, Pennsylvania, and at A Rare Affair, held at

the Chicago Botanic Garden, a single magnificent specimen of an unusual plant may bring in thousands of dollars. For both auctions, a committee of plant experts vets the selection to be offered from among hundreds of donations. At these highly successful auctions, attendees expect *la crème de la crème*. But rarity is a powerful draw anywhere.

"Our rule of thumb is: 'If you can buy it at a regular nursery, we won't carry it,'" says Mahoney. "Because we can raise stuff ourselves, we have the best passion vines in the United States—40 varieties. We have three other major specialties: 100 species of salvia (not the bedding types), fuchsias—we've created and registered 18 different hybrids with the American

Fuchsia Society—and the Vireya rhododendrons from high elevations in the tropics. These are groups nobody else offers. We also do proteas—maybe as many as 40 kinds of these—Mexican plants, and California natives, our biggest seller."

REGIONALLY ADAPTED PLANTS

Horticultural institutions have the mission of educating the public. Responsive to environmental issues—and wanting



Cacti and succulents are popular sale items at the Denver Botanic Garden's plant sale.

PLANT SALES ACROSS THE COUNTRY

Here are a few of the very popular spring plant sales around the country. Dates, times, and admission fees are subject to change, so check with individual gardens. Additional listings of regional plant sales can be viewed in a special link from this article on the AHS website (www.ahs.org).

SPRING PLANT SALE

Desert Botanical Garden

Phoenix, AZ
www.dbg.org
 March 19 (Members only
 preview: March 18)
 Admission: Free

39TH ANNUAL PLANT SALE

San Francisco Botanical

Garden at Strybing Arboretum
 San Francisco, CA
www.sfbotanicalgarden.org
 May 6 (Members only
 preview: May 5)
 Admission: Free

SPRING PLANT SALE

Rancho Santa Ana Botanic Garden

Claremont, CA
www.rsabg.org
 April 1 & 2 (Members only
 preview: April 1)
 Admission: Free

THE SCOTT ARBORETUM ASSOCIATES PLANT SALE

Swarthmore College
 Swarthmore, PA
www.scottarboretum.org
 No sale in 2006; next sale
 in 2007
 Admission: Free

DELAWARE CENTER FOR HORTICULTURE 26TH ANNUAL RARE PLANT AUCTION

Longwood Gardens
 Kennett Square, PA
www.dehort.org
 April 29, Preview: Clivia
 Circle preview peek and
 lectures
 Admission: \$200 for
 auction; \$750 for Clivia
 Circle preview

A RARE AFFAIR

Chicago Botanic Garden
 Glencoe, IL
www.chicagobotanic.org
 Held every other year; next
 auction on June 14, 2007.
 Admission: \$200 and up

NEW ENGLAND WILD FLOWER SOCIETY SPRING PLANT SALE

Garden in the Woods
 North Framingham, MA
www.newfs.org
 June 10; Preview sale:
 June 9, ticketed garden
 party
 Admission: \$25 for preview
 party

A SPRING AFFAIR

Sponsors: University of
 Nebraska at Lincoln, Nebraska
 Statewide Arboretum,
 Nebraska State Fair Park
 Lincoln, NE
<http://springaffair.unl.edu/>
 April 22
 Preview party: April 21
 Admission: Free; ticket
 prices for preview vary

PI ALPHA XI (PAX) SALE

JC Raulston Arboretum
 Raleigh, NC
 April 8 & 9
www.ncsu.edu/project/pialphaxi/
 Admission: Free

SPRING PLANT SALE AND GARDENING FESTIVAL

Lady Bird Johnson Wildflower Center
 Austin, TX 78739
www.wildflower.org
 April 8 & 9
 Members' only preview:
 April 7
 Admission: Free to members



The native Kentucky lady's-slipper (*Cypripedium kentuckiense*) is always a hot item at the New England Wild Flower Society's spring plant sale.

bring in people from outside the state, they're blown away by things they don't see anywhere else."

ADDING AMBIENCE

The highly entertaining mix of horticulture seminar, sale, fair, and schmooze session, where gardeners can meet the experts, is seductive. Realizing that, some organizations roll it all into one big celebration.

In addition to offering unusual Nebraska natives brought into cultivation by Nebraska plantsman extraordinaire Harlan Hamernik, A Spring Affair is a festival with free seminars and food vendors. The party atmosphere prevails at other sales as well.

"Anybody can buy tickets to the Spring Affair preview party," says Larsen. Besides the dinner and the company, first crack at a table of Hamernik's "surprises"—an odd lot of unlisted rare plants, added at the last minute—is a big draw.

"It's not just plants; at the Denver Botanic Garden sale, we have outside retailers. It promotes a fairlike ambience," says Babcock. "There are gourds, potters, different items, and our library holds a used book sale." At the Strybing sale, "Wineries donate wine and my budget covers the food," says Mahoney. At the NEWFS sale, as well as food donated by

satisfied customers—they feature plants that will succeed in the gardens of their regions, so natives and climate-adapted plants figure prominently in the sales.

At the PAX sale, says Olsen, the plants are not just rare or underused, but "truly good landscape plants for the Southeast." For customers in the Phoenix area, says Babcock, "I try to get as many kinds of desert plants as I can find—a nice assortment of 20,000 to 25,000 plants. There are probably about 1,200 different kinds of uncommon landscape plants. It's one-stop shopping. We order arid-adaptive plants from vendors and try to propagate what we can't get from the nurseries," she adds.

Rancho Santa Ana concentrates on California natives. "We generally have around 13,000 native plants for sale,

around 1,000 exotics, along with native seeds of annuals and dry (packaged) bulbs," says O'Brien, who scours "nurseries all over the state for our plant sale."

"Plants should correspond to the surroundings," says Karma Larsen, communications associate at the University of Nebraska at Lincoln (UNL), which along with the Nebraska Statewide Arboretum, and the Nebraska State Fair Park, sponsors an annual plant sale called A Spring Affair. That concept is "part of our goal," says Larsen. "You're in Nebraska; it ought to look like Nebraska." The efforts of enlightened horticulturists have had a filter-down effect.

In its 20th year, "A Spring Affair has really changed the plant palette here in the Midwest," adds Larsen. "And when we

TIPS FOR SUCCESS AT A PLANT SALE

- If possible, join the institution hosting the sale and attend the preview event.
- Beforehand, consult the website or sales literature to familiarize yourself with the offerings.
- Scout your garden to see what spaces you need to fill and make a wish list of plants; this reduces the chances of you buying on impulse something for which you don't have an appropriate planting site.
- Attend sales, if possible, with a friend; you can help each other hold places in line and with prospective purchases.
- Dress for the experience; wear comfortable shoes and a fanny pack to keep your hands free.
- Consider how you will transport your purchases home—if necessary, borrow a truck or other vehicle with more storage space.
- If you really intend to stick to a budget—but drool at the sight of a yellow-flowered magnolia—bring only that amount of money and leave your checkbook and credit cards at home; otherwise, bring more money than you expect to spend.



Previewing plants at the New England Wild Flower Society plant sale.

local places, “there’s a children’s table, and a fabulous used book sale,” says Strick. “Even standing in line is like a little party.”

Sometimes the plant sale is a party and an elegant one at that. For the Rare Plant Auction and A Rare Affair, admission includes cocktails, dinner, and the chance to bid in the silent and live auctions.

“Attendees are a mix of plant experts, plant donors, people who are enjoying the party, and people who want to ferret out the best of the best,” says Delaware Center for Horticulture Executive Director Pam Sapko.

Drinks in hand, guests wander Longwood’s conservatory or Chicago Botanic Garden’s Great Hall, perusing and bidding on the hundreds of offerings in the silent auction. After dinner, the special items in the live auction generate the most excitement and, individually, bring in the most money.

“The plants in the live auction may be less rare, but are fabulous specimens,” says Sapko. “A beautiful yellow magnolia went for \$6,000; a matched pair of metasequoias went for \$12,000.” Last year, at the 25th anniversary event, the auction netted

\$192,000. These big numbers can be deceptive, however. High bidders often come away with bargains. One year at the Rare Plant Auction, a beech, valued at \$35,000 and so huge it had to be moved with a special crane, went for \$5,000.

Proceeds from auctions and plant sales are vital to the institutions that host them. They fund everything from plant evaluation programs to community gardens to scholarships.

“It’s our biggest fundraising event as well as our biggest educational event,” says Claire Sawyers, director of the Scott Arboretum, of the arboretum’s biennial plant sale. “The plant sale is a direct manifestation of our mission to educate. We put up labels on the plants all over campus that say ‘this plant will be offered at the sale’. We offer a lecture on the featured plants, and, at the sale, have plant experts available to answer questions.”

Education creates an increasingly sophisticated clientele, which, in turn, fuels a demand for more interesting plants. This democratizes plant sales. Once the province of horticultural *cognoscenti*, advertised only by word of mouth, sales are becoming mainstream. Those who attend them suffer the traveling, the waiting in line, the crushing crowds, and the difficulties of transporting their treasures home for the satisfaction—the bliss—of acquiring more and rarer plants.



The conservatory at Longwood Gardens in Kennett Square, Pennsylvania, provides an elegant setting for the Delaware Center for Horticulture’s annual rare plant auction.

Carole Ottesen is a contributing writer for *The American Gardener*.

Go Forth and Garden

This is the final article of this series on garden design.

OVER THE last two years, we have explored the process of design through this series of articles. Starting with abstract ideas, we later explored how to mobilize the concepts in concrete garden situations. The intent has been to have each article build upon the previous ones, “funneling” from the bigger picture to specific, detailed topics.

Having traveled together this far, I hope you have found the journey illuminating and entertaining. If so, you may want to reread all the articles in one sitting to see how they build one upon the other. [To facilitate this, the entire series is available online to AHS members—visit www.ahs.org and click on “Publications.”]

I leave you with two final suggestions.

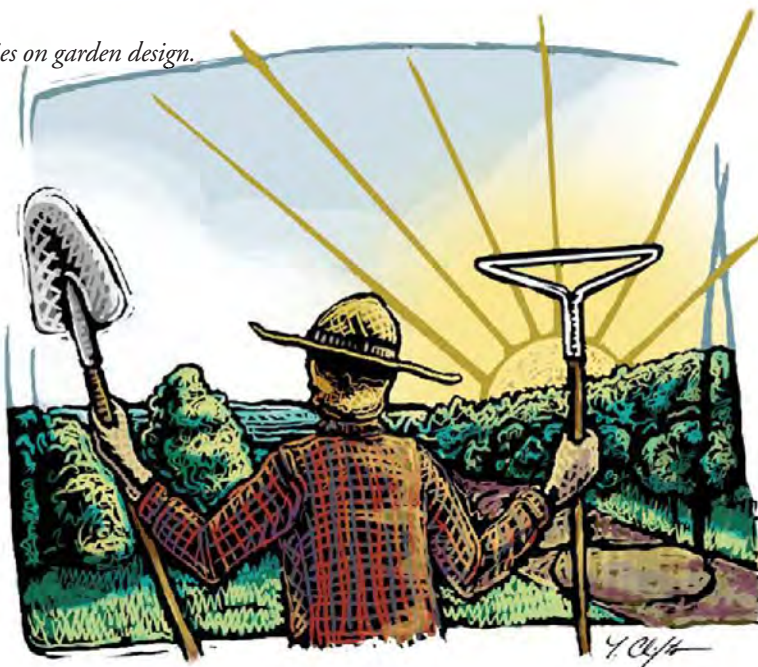
SEARCH FOR SPACE: INSPIRATION IS WHERE YOU FIND IT

One of the best ways to learn about creating gardens is to visit as many as possible, to engage them fully and in as many ways as possible. The first step to doing so involves resisting the temptation to photograph the garden. On first consideration, this advice may seem counterintuitive until one remembers that gardens are overwhelmingly spatial and multi-sensual experiences. They are definitely not two-dimensional pictures.

The lens is unable to capture the wafting of aromas, the warmth of light, and the satisfying crunch of gravel. Nuances resulting from dynamic and ever-changing factors such as shadow-play, breezes, and the position of the body in relationship to the garden also escape the camera. In short, the mechanical viewfinder sometimes alienates the person from the garden.

I encourage my students to spend time getting to know the gardens they visit through written notes, sketches, and their own memory. Sharing observations with others—a gardening companion or fellow student, for example—also deepens one’s understanding. Once you have given yourself an opportunity to document these subtle characteristics, feel free to take photographs. The images will then be one of many inspirations from which you can draw in the future.

Take the time to visit as many public and private gardens as



you can. Your local arboreta or public gardens are excellent places to begin. Many areas also have well-designed public spaces such as plazas, parks, and courtyards that are worth studying.

Ironically, “non-gardens” also offer a wealth of ideas to those seeking inspiration about space. Architectural features often highlight spatial components free from horticultural distractions.

In one design class, the students and I spent an enjoyably productive afternoon analyzing a local shopping mall. Even in such an apparently sterile environment, we were able to abstract quite a few lessons about compelling design applicable to gardens.

JUST DESIGN IT: ABANDON YOURSELF TO THE PROCESS

The only way to learn how to design is to *start designing*. The best way to understand space is to create it—to see ideas on paper and in your imagination transform into three-dimensional reality. It is amazing how much you can learn by comparing the lived spatial experience to the plan.

I often have students study a garden design drawing in detail as one of their first assignments. They analyze the planting scheme, the spatial sequence, and the sensual stimuli among other characteristics. I challenge them to build the garden inside their heads, to attempt knowing it in all seasons and in all dimensions.

We then visit and experience the designed spaces, comparing them to what the students had built in their minds. The similarities and differences are revealing and teach much about designing gardens. Try this at a local botanical garden (they might be willing to share a design drawing or two) or at the garden of a friend who has used a landscape architect or landscape designer.

EXEUNT STAGE RIGHT

Fear not if, in reading these articles, you are still nervous about trying to design a garden. Professionals spend years in school and then additional years gaining experience and wisdom in the field

AN AMALGAMATION OF INFLUENCES

A diverse array of people and ideas have shaped me as a designer and thus have influenced the "Gardening by Design" series. Much credit is due to Michael C. Carey, unwavering life partner; William H. Frederick, Jr., horticultural landscape architect *extraordinaire*; Sharon Loving, head of Longwood Gardens' horticulture department and a designer in her own right; Frederick E. Roberts, Longwood Gardens director and visionary; and R. William Thomas, director of Chanticleer, a Pleasure Garden.

The following books have been influential and I heartily recommend them for your further design ruminations. Some are out of print, so look for them online and in used bookstores.

Color Echoes by Pamela J. Harper (Macmillan, 1994). This is one of the most accessible and lucid books on color I have read. Harper grounds her observations in lessons from her own experience.

Elements of Garden Design by Joe Eck (Storey, 1996). Eck explores some basic, but specific, garden design ideas in an enjoyable and easy read.

The Exuberant Garden and the Controlling Hand by William H. Frederick, Jr. (Little, Brown & Co., 1992). This virtuoso performance explores the inextricable links between plants and design. Frederick bases advice on his experience as a plantsman and landscape architect—an inspiring combination.

Form and Fabric in Landscape Architecture: A Visual Introduction by Catherine Dee (Spon Press, 2001). Dee presents an illustrated "encyclopedia" of spaces garden designers manipulate.

Gardens are for People by Thomas Church, Grace Hall, & Michael Laurie (University of California Press, 1995). This book, from one of the first "modernist" landscape architects, provides a strong reminder why gardens exist. Some of his work is oriented to a residential scale, and thus doubly useful.

Gardens Make Me Laugh by James Rose (Silvermine Publishers, 1965). This is one of the most insightful, amusing, and thought-provoking diatribes on gardens I have read.

The RSVP Cycles: Creative Processes in the Human Environment by Lawrence Halprin (George Braziller, 1969). Halprin explores a framework for one version of the design process. His idea of "scoring" is useful for creating spatial experiences over time.

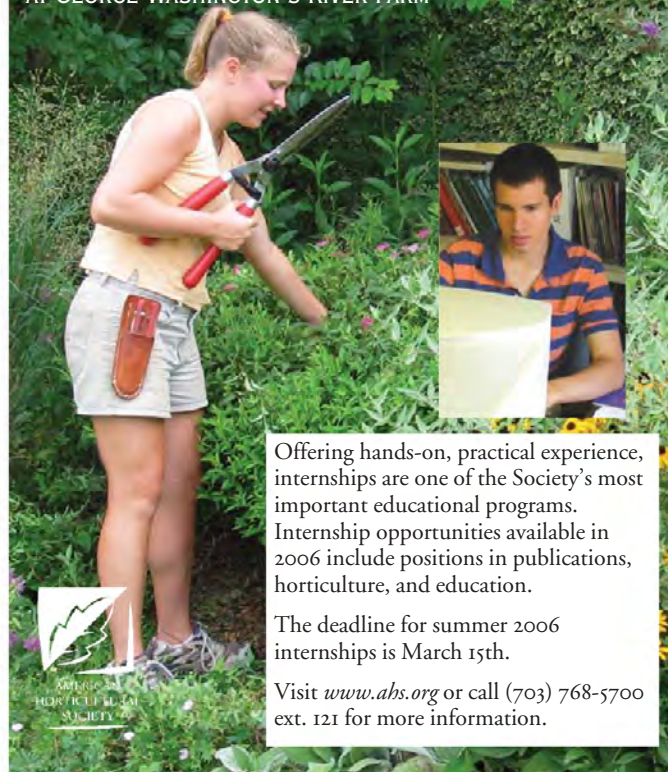
Second Nature by Michael Pollan (Dell Publishing, 1991). Pollan plumbs the philosophical reason why we garden and what a garden is.

before they develop and finely hone their skills. I trust "Gardening by Design" has, at the least, provided you with an overview and glimpse into designing gardens and sparked your interest in learning more. This is critical for, in the end, design is but a lifelong process of observing, learning, thinking, and creating. 🌿

Tres Fromme is a landscape designer at Longwood Gardens in Kennett Square, Pennsylvania.

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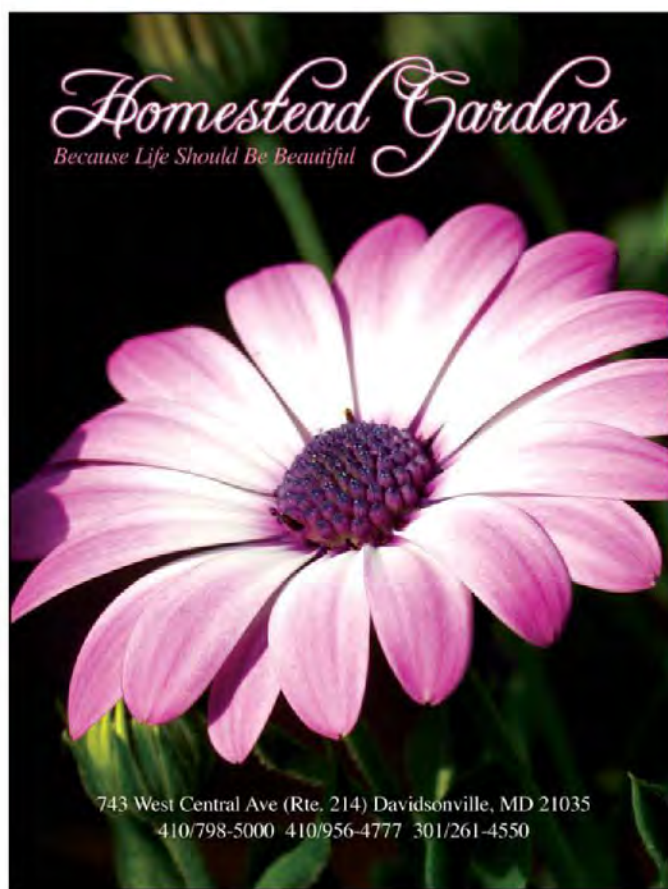
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Nona Koivula, Executive Director, All-America Selections

by Lynda DeWitt

EACH YEAR, as gardeners find “new and improved” varieties of plants filling catalog pages and garden centers, they are faced with the question: Which plants actually live up to the hype? That’s where All-America Selections (AAS) steps in. Based in Downer’s Grove, Illinois, this organization, founded in 1932, has been putting its stamp of approval on exceptional plants each year since 1933. Through its network of trial grounds across North America, it impartially tests plants submitted by plant breeders to identify outstanding performers. Its annual list of winners is anticipated by seed company owners and gardeners each September as a guide to what to look for next spring.



Nona Koivula has served as Executive Director of AAS for 21 years. Garden writer Lynda DeWitt caught up with her at AAS headquarters recently to find out more about the organization’s work and some of the 2006 award winners.



Lynda DeWitt: AAS has been giving awards to flowers and vegetables for decades. What attributes do winners in these categories share?

Nona Koivula: All AAS winners exhibit significantly improved qualities. Judges in the vegetable category look for higher yield, new color, new or increased disease resistance, and earliness to harvest. The judges also taste-test the vegetables to compare their flavors and textures.



For flowers, judges look for improvements in flower size, form, and color, as well as foliage shape, texture, color, and color combinations. They also consider the length of flowering season, degree of disease tolerance, and level of required maintenance, such as deadheading.

We also give awards to bedding plants, those annual or biennial flowers that add seasonal color to flower beds. *Dianthus* ‘Supra Purple’ and *Nicotiana* ‘Perfume Deep Purple’ are 2006 AAS Bedding Plant



Award Winners. Both bloom early and for long periods, two traits that judges value in this category. (For more information about the 2006 AAS winners, see page 46.)

The AAS Gold Medal Award is reserved for plants that represent a “breeding breakthrough.” Tell us about some of the winners.

Historically, this award has been given about once a decade. However, in the last 10 years, there have been several winners.

‘Purple Haze’ carrot, above left, and ‘Supra Purple’ dianthus, center, are among the AAS award winners for 2006. ‘Orange Profusion’ zinnia, right, received an AAS Gold Medal Award in 1999 for improved tolerance to powdery mildew, its long season of bloom, and carefree maintenance.

The award is given to a variety with stellar traits that sets a new standard by which all other plants in its class are compared.

The 'Profusion' zinnias, for example, were Gold Medal winners ('Cherry' and 'Orange' in 1999, 'White' in 2001) due to their improved disease tolerance, long period of bloom, and ease of growing. They provide the standard for all zinnias that claim powdery mildew tolerance.

Another recent Gold Medal winner (2003) was 'Purple Majesty' ornamental millet, the first purple-leaved millet with strong ornamental qualities. It is also easily grown in full sun in any garden.

All AAS judges serve voluntarily and the tested seeds are coded to conceal their identity. How else do you ensure the results are not skewed in favor of certain influential breeders?

Our guidelines stipulate that a breeder who enters plants must not tell any colleagues about the source of the entry. If a breeding company hosts a trial, the breeder cannot evaluate his or her own entry. The fun part of the trials is guessing who

For More Information

All-America Selections
1311 Butterfield Road, Suite 310
Downers Grove, IL 60515
www.all-americaelections.org

or what company has entered plants.

How is soil type determined at the various trial grounds?

Soil type is not one of the criteria to determine an AAS Trial Ground, so the tested seeds are grown in a variety of soils from coast to coast. The winners will have done well in the majority of them.

Gardeners can visit the 171 public gardens designated AAS Display Gardens in the United States and Canada to see past AAS winners. Can gardeners also visit the many AAS Trial Ground sites?

Gardeners are welcome to visit the 46 AAS Trial Grounds (including three that are organic), but we recommend they first make an appointment. To find the nearest AAS Trial Ground, send an e-mail request to aas.ngb@attglobal.net to receive a copy of

the proving ground brochure via mail. All AAS Display Gardens are listed at www.all-americaelections.org.


AAS was the 2005 recipient of the Garden Writers Association's Wilfred J. Jung Distinguished Service Medal. Tell us about that.

This award is given to an organization that promotes gardening and advances gardening communications. Since 1932, AAS has promoted the development of and provided information about exceptional ornamental plants and vegetables. I was thrilled when we were recognized with this award.

Do you have a home garden?

Yes, I have perennial shade gardens on most of the property. Because I travel so much, I always select easy-to-grow plants, such as hostas. The only location that receives sufficient sunlight is the driveway, where I grow tomatoes, peppers, basil, and sun-loving flowers in containers. ☺

Free-lance writer Lynda DeWitt lives in Bethesda, Maryland.



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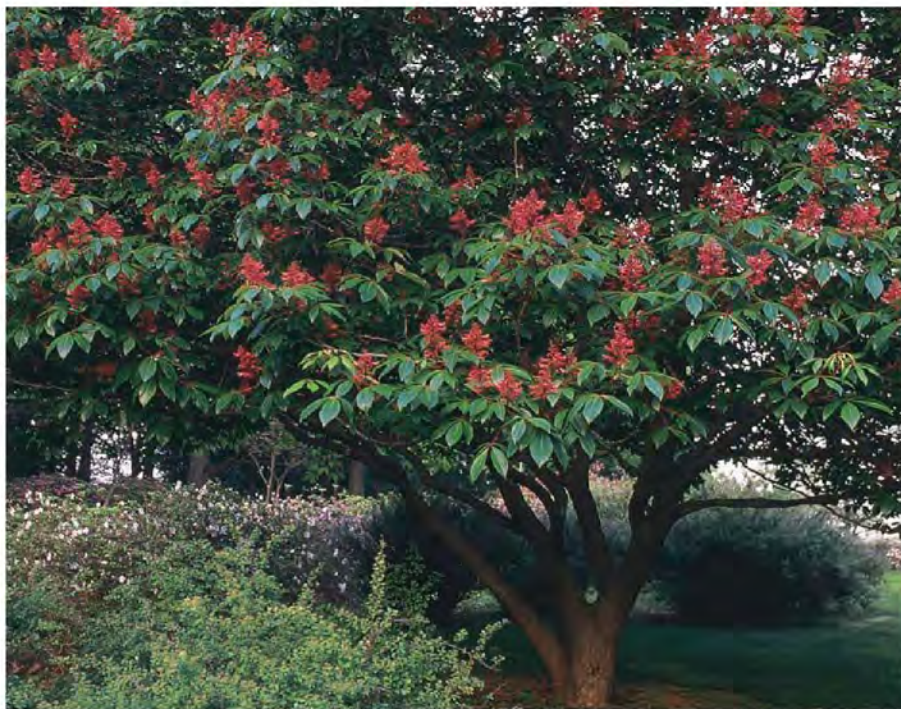
HOT, HUMID summers and warmish winters during which the ground rarely freezes characterize the eco-region known as the southern coastal plains and forests. Opportunities for wildlife-watching exist year round in this region, so there's no need for your yard or garden to be a lifeless sea of green that's rarely visited by colorful and engaging animal life.

The region encompasses South Carolina, Georgia, northern Florida, Arkansas, Mississippi, Louisiana, the eastern halves of Virginia and North Carolina, the eastern thirds of Oklahoma and Texas, and small portions of Kansas, Missouri, Tennessee, Delaware, Maryland, and New Jersey. Conifers dominate the southern band and deciduous trees dominate the northern band. Native shrubs, perennials, and vines are distributed according to their preference for one community or the other—or their ability to live in both.

Although this large region includes many diverse landscapes and microclimates, a surprising number of plant species are at home in most of the states that comprise it. Gardeners in these states can mix and match the following trees, shrubs, and perennials to create a habitat that will support an abundance of wildlife.

BEST TREES

Fall is the time to plant native trees and shrubs in most of this region. As the weather cools and rain showers become more frequent, plants have time to settle in and expand their root mass before winter, then take full advantage of spring showers and warmth to maximize growth before summer's blast-furnace heat arrives. Habitat trees and shrubs that enjoy each other's company and will do well throughout the region include red maple (*Acer rubrum*), fringetree (*Chionanthus virginicus*), moun-



Red buckeye (*Aesculus pavia*) is an attractive small tree with flowers that draw hummingbirds.

tain laurel (*Kalmia latifolia*), red buckeye (*Aesculus pavia*), blackhaw viburnum (*V. prunifolium*), sassafras (*Sassafras albidum*), and tulip poplar (*Liriodendron tulipifera*).

If your yard is small and you'd like to plant a showy tree, fringetree will fill the bill. It bears four- to 10-inch clusters of drooping white blooms that cheer up the spring garden before its leaves appear. When the leaves do come on stage, they are a lustrous dark green that changes to gold in autumn. In early fall, dark blue fruits form on female trees and are quickly eaten by birds (including wild turkeys) and small mammals. The male and female trees both have fragrant blossoms, but although the male is somewhat showier, it does not fruit.

Another small tree—though under ideal conditions it can grow taller than its usual 15 to 25 feet—red buckeye takes first

prize for attracting hummingbirds. It also offers almost instant visual gratification because it begins blooming when it is only three feet tall. Red buckeye's one fault is it tends to drop its leaves early, but if you plant it toward the back of your yard or in an island bed, you can place other plants around and in front of it and let its branches provide architectural interest.

If you have space for a large tree, tulip poplar and red maple offer visual treats as well as wildlife rewards. Both flower in early spring, have especially lovely leaf shapes, and offer fall color. Red maple attracts bobwhites, chickadees, various finches, grosbeaks, warblers, vireos, and squirrels. Tulip poplar attracts hummingbirds and butterflies as well as finches and cardinals. Tiger and spicebush swallowtail larvae feed on its leaves.

UNDERSTORY PLANTS

Use a mixture of shrubs and smaller trees such as mountain laurel, blackhaw viburnum, and sassafras to form an understory beneath the taller native trees. Tall understory plants like these create a transition between trees and lower-growing perennials, and they offer shelter and food for wildlife.

Although mountain laurel has a reputation for being difficult to transplant, nurseries have been developing plants that are more tolerant of being moved. Once established, mountain laurel forms dense thickets of evergreen leaves that offer shelter for birds. It blooms for several months in late spring and produces fruit in the fall.

Blackhaw viburnum also flowers in spring and fruits in fall; its flowers are a nectar source for butterflies, and birds and small mammals enjoy its fruit. It is the most cold-tolerant of the viburnums.

Sassafras is a favorite of both humans and wildlife. Many songbirds, especially robins, enjoy its fruit. Swallowtail larvae also feed on its leaves, which provide bright orange autumn color. Space sassafras plants at half the intended distance; single specimens may grow into very large trees, but if planted close together, the shrubs will form a lower-growing thicket.



Penstemon digitalis attracts hummingbirds.

Fill in around the base of shrubs with Christmas fern (*Polystichum acrotichoides*), *Salvia lyrata*, and penstemons such as *P. smallii* and *P. digitalis* to attract hummingbirds. In sunny areas, plant the rudbeckias—*R. hirta*, *R. fulgida*, and *R. triloba*—amid native grasses such as switchgrass (*Panicum virgatum*) and Indiangrass (*Sorghastrum nutans*). Don't deadhead the rudbeckias after they bloom; along with grasses, they provide seeds for songbirds in fall and winter.

Be sure to include fruiting plants such as blueberries (*Vaccinium* spp.), beautyberry (*Callicarpa americana*), and dwarf huckleberry (*Gaylussacia dumosa*). Butterflies sip nectar from their flowers and the fruits are food for other wildlife.

WETLAND HABITAT

For wet or marshy sites in full sun, plant pitcher plants (*Sarracenia* spp.), brilliant red cardinal flower (*Lobelia cardinalis*), golden swamp sunflower (*Helianthus angustifolius*), and the attractive and unusual starrush whitetop sedge (*Rhynchospora colorata*).

In shady spots try white-flowered lizard's tail (*Saururus cernuus*) together



Pitcher plants thrive in sunny wet spots.

with crinum lily (*Crinum americanum*) and ferns such as cinnamon fern (*Osmunda cinnamomea*) and sensitive fern (*Onoclea sensibilis*).

Marshy areas shelter salamanders, turtles, and frogs as well as many birds, pollinators, and small mammals. *Lobelia* is a powerful hummingbird attractor and *Helianthus* seeds are enjoyed by white winged and mourning doves, finches, bobwhites, sparrows, white-breasted nuthatches, and meadowlarks.

Joanne Turner Wolfe is a contributing editor for The American Gardener and a key voice in the habitat gardening movement.

Resources

Because so many different plant communities and microclimates are found within the southern coastal plain and forest, seek guidance on resources for your local region from a nearby botanical garden, nursery, or Master Gardener.

East Gulf Coastal Plain Wildflowers by Gil Nelson. Falcon Press, Guilford, Connecticut, 2005.

Forest Plants of the Southeast and Their Wildlife Uses by James H. Miller and Karl V. Miller. University of Georgia Press, Athens, 2005 (revised edition).

Native Shrubs and Woody Vines of the Southeast by Leonard E. Foote and Samuel B. Jones Jr. Timber Press, Portland, Oregon, 1989.

Sources

Niche Gardens, Chapel Hill, NC. (919) 967-0078. www.nichegardens.com. Catalog \$3.

Woodlanders, Inc., Aiken, SC. (803) 648-7522. www.woodlanders.net. Catalog \$4.

Horticultural News and Research Important to American Gardeners

2006 ALL-AMERICA SELECTIONS

Each year, All-America Selections (AAS) evaluates new plant cultivars grown from seed through a network of trial sites. Judges look for disease resistance, a vigorous growth habit, high flower production, good bud and flower form, opening and finishing color, and fragrance. This year, AAS recognized six ornamentals and four vegetables and herbs for superior performance. (For more on AAS, see page 42.)

***Dianthus* 'Supra Purple'** (USDA Zones 5–9, AHS Zones 9–1). Growing to a foot tall, this heat-tolerant dianthus has lacy purple flowers and is noted for prolific early bloom.



***Diascia integrerrima* 'Diamonte Coral Rose'** (Zones 7–9, 9–1). Early flowering and frost tolerant, this tender perennial bears spikes of small rosy coral blooms. It grows to 10 inches tall with a spreading or cascading habit.

***Nicotiana x sanderae* 'Perfume Deep Purple'** (Zones 10–11, 12–1). Star-shaped, dark purple flowers that have a delicate evening fragrance bloom in summer on this 20 inch plant.

***Salvia farinacea* 'Evolution'** (Zones 8–11, 12–1). This upright, two-foot-tall plant produces six-inch violet flower spikes. Drought tolerant and undemanding.

'Black Pearl' ornamental pepper (Zones 9–11, 12–1). Pure black leaves and pearl-size ebony peppers set apart this at-



tractive pepper that grows to 18 inches tall. The peppers are edible, but hot.

***Zinnia elegans* 'Zowie! Yellow Flame'** (Zones 0–0, 12–1). Large, semi-double flowers with a scarlet/rose center and yellow petal edges bloom on long stems, perfect for cutting.

'Purple Haze' carrot (Zones 9–10, 10–1). This sweet-flavored, tapering, purple carrot with a bright orange core looks dynamite in salads and for dipping.

'Delfino' cilantro (Zones 0–0, 10–1). Growing to 20 inches tall, this culinary herb was selected for its extra-fine, fern-like foliage.

'Carmen' pepper (Zones 9–11, 12–1). An Italian-type early sweet pepper with distinctive horn-shaped peppers grow on upright 28-inch tall by 16-inch wide plants, perfect for patio containers.

'Mariachi' pepper (Zones 9–11, 12–1). Large fruits, early and prolific yield, and unusually fine flavor distinguish this mildly hot chile pepper.



To locate sources for these award-winners, visit the AAS website at www.all-americaelections.org.

THE GARDEN CRUSADER AWARDS

Gardener's Supply Company, a mail-order supplier of environmentally responsible gardening products, has announced its 2005 Garden Crusader Awards. These annual awards celebrate gardeners who are making a positive impact on their communities through gardening.

The 2005 Grand Prize Winner is Rick Brooks of Madison, Wisconsin. As the director of the Health Promotion Project at the University of Wisconsin in Madison,



Brooks has successfully incorporated gardening into many social programs for children and adults in the Madison area. He co-founded the Madison Home Garden Project, which has constructed 125 raised

beds so that seniors and people with disabilities have access to plants. He also developed the "Growing Gardens, Growing Minds" summer program for teachers. The program emphasizes ways to involve gardening in the classroom.

Brooks has coordinated conferences for healthcare providers on the "Power of Plants" and "Changing the World One Garden at a Time," and co-authored a free, online book that explains how to create community childcare and school gardens called *Got Dirt?* He also co-founded the Community Food and Garden Network, an umbrella group for 45 organizations "that are using gardening to increase community health and promote food security."

"Gardening is a way to relate to the earth and bring people together," Brooks says. "There's a spiritual aspect to garden-

ing that goes beyond politics, culture, and religion. It allows people to talk about what's most important in life, such as food, children, and home."

For a complete list of the 2005 Garden Crusader Award winners, visit www.gardeners.com. To nominate a gardener for the 2006 award, call (888) 239-1553 or e-mail crusader@gardeners.com.

HELP MONITOR THE EFFECTS OF CLIMATE CHANGE

According to the National Environmental Satellite, Data, and Information Service, the number of frost free days experienced in the United States in the last 50 years or so has increased. Winter temperatures are slightly higher and spring is arriving several days earlier in many locations. As you might expect, these changes are having an effect on plants and animals. "We know in principle what's going on," says Mark Schwartz, a climatologist at the University of Wisconsin-Milwaukee, but data is needed to demonstrate specific effects.

Scientists are relying on phenology—the science of tracking the periodic bio-

PEOPLE and PLACES in the NEWS

Seeds in a Jiffy

Many gardeners who enjoy starting plants from seeds are familiar with peat pellets and biodegradable pots made by Jiffy of the Americas, Inc. The Norwalk, Ohio, based company recently acquired another company with a familiar name to seed enthusiasts—Ferry-Morse® Seed Company based in Fulton, Kentucky. In business since 1856, Ferry-Morse is the oldest active seed company in North America. "The acquisition," says Daniel Schrodtt, president of Jiffy of the Americas, Inc., "has created a clear synergy between the companies." Jiffy's product line will now include Ferry-Morse as a brand name.

logical effects in response to environmental change—to help them. Schwartz and several collaborators recently established the USA-National Phenology Net-

work (USA-NPN), and they are looking for citizens across the country willing to observe, record, and submit observations. With a broader pool of data, the researchers can better understand how plants are responding to climate changes. The USA-NPN has set up a website to guide participants through the process of selecting and observing appropriate species for their location and submitting data over the Internet.

Similar monitoring efforts have been conducted in other countries and regionally in the United States, but USA-NPN hopes this nationwide effort will help researchers model and predict the long-term effects of climate change. If you are interested in participating, log on to www.uwm.edu/Dept/Geography/npn/index.html to learn more.

PRESERVING PLANT DISEASES

To the uninitiated, white-spored gall rust sounds vaguely like a leprous disorder. But mycologists know it as a fungus that causes a disease in pine trees. Geographically restricted to the Spring

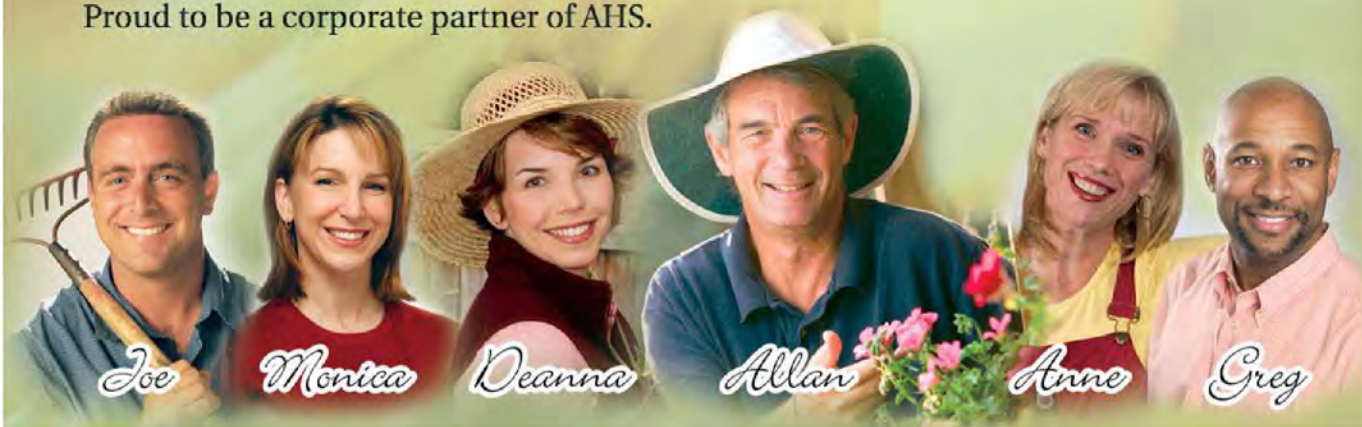


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HORTICULTURAL HISTORY: LONGWOOD CELEBRATES ITS CENTENNIAL

Pierre du Pont, the industrialist, founded Longwood Gardens in 1906 out of concern for the loss of trees in the area. Over the years, du Pont added and perfected buildings and other features in his garden. One of these buildings, completed in 1928, was known in du Pont's time as the Azalea House because it was intended to house non-hardy azaleas and camellias. It was recently remodeled and reopened last fall as Longwood's new East Conservatory, which unofficially marked the start of the garden's centennial celebrations.

Remodeled once before from 1969 to 1973, the Azalea House was renamed the East Conservatory in 1982 because azaleas were no longer the dominant feature. The newly remodeled East Conservatory contains traces of its historical past as well as innovative technological features that will help preserve it for many years to come. Among the most impressive updates is the complex network of pipes

under the floor, which provide root-zone heating and water to 20,000 square feet of plants.

One hundred-and-forty different kinds of tropical and Mediterranean plants grow in the conservatory. At least one of the plants is almost a century old: the sago palm (*Sago revoluta*), which dates from du Pont's time. Other features include black-dyed heated pools, bronze and mica lanterns from New York, and bronze windows made by artisans in Japan. "You build a garden like this once in a century," says Tres Fromme, planning and design leader at Longwood and designer of the interior of the East Conservatory. "We built it to last a century."

The official start of the Longwood Gardens Centennial Celebrations is January 28 and

29. For a full calendar of Centennial events in 2006, visit www.longwoodgardens.org.

—William Clattenburg, Editorial Intern



The East Conservatory at Longwood Garden opened last year.

Mountains in Nevada, this rust tends to favor ponderosa pines (*Pinus ponderosa*). Its scarcity, ironically, has led some forest pathologists to question whether in some cases rare fungi should be protected, even if they are pathogenic.

Paul Zambino, a plant pathologist at the Rocky Mountain Research Station, feels that eradication of the fungus should be avoided. Pointing out that this fungus is native to North America, he explains, "It has a coevolved relationship with the pines that it's occurring on." This ensures that the rust is unlikely to kill a lot of host pines since these tree species have developed resistance or tolerance to the disease over time.

Eradicating white-spored gall rust would also mean the loss of valuable research material. "I think all organisms deserve protection from extinction," says J. Christopher Brown, a botanist with the U.S. Army Corps of Engineers. "We can never know what they might teach us some time in the future, perhaps with techniques that are inconceivable now."

CHOOSING THE BEST BOXWOODS

Deer-resistant, evergreen, and versatile, boxwoods (*Buxus* spp.) recently have experienced a resurgence in popularity in American gardens. However, with hundreds of cultivars to choose from, selecting the right boxwood presents a challenge. That's why Paul Saunders of Saunders Brothers Nursery in Piney River, Virginia, began coordinating the National Boxwood Trials several years ago.



Paul Saunders examines a specimen of English boxwood.

To help homeowners, nurserymen, and landscapers make smart selections, Saunders publishes a report each year on how different cultivars perform in various regions of the country. The 2006 report includes data on 24 boxwood cultivars evaluated at 51 sites in the Northeast, Mid-Atlantic, Southern, and Midwest regions of the United States—known by growers as the "boxwood belt." Participants include national landmarks such as the White

House and the Smithsonian Institution, as well as numerous botanic gardens, arboreta, and university campuses. And, thanks to Saunders Brothers' participation in the Eastern Performance Trials at River Farm last fall, the AHS now has a new boxwood garden filled with many of the cultivars that were part of the boxwood trials.

Evaluators score each cultivar on two criteria: "grower friendliness," which means a cultivar's adaptability to a particular environment and how easy it is to grow, and "impulse cosmetics," which the report defines as "that striking beauty that makes you spin around in your tracks to take a second look."

Copies of the 112-page report are available for \$20 by calling (434) 277-5455 or e-mailing paul@saundersbrothers.com.

ORGANIC FOOD REDUCES PESTICIDE EXPOSURE IN CHILDREN

If you needed one more reason for growing and buying organic produce, a recent study supported by the Environmental Protection Agency (EPA) found evidence linking diet to pesticide exposure in young children. Concentrations of organophosphorus insecticides, a group of pesticides known to cause neurological effects in humans and animals, immediately decreased to undetectable levels once

One of many new garden spaces on the campus of the University of Akron.

the children in the study, aged three to 11, began to consume only organic fruits, vegetables, and juices. When they returned to their previous diets, the organophosphorus insecticide concentrations once again rose to detectable levels. The study was published online on September 1, 2005, in *Environmental Health Perspectives*, the journal of the National Institute of Environmental Health Sciences (ehp.niehs.nih.gov).

NEW AWARD FOR GREEN SPACE

In 2005, the University of Akron in Akron, Ohio, became the first recipient of the annual "Because Green Matters" Award. Given by Project Evergreen, a nonprofit organization that promotes the benefits of landscapes and green spaces, the award recognized the university's choice to add 30 acres of open green space and plant 30,000 trees to enhance the campus's environment.

Project Evergreen, based in New Prague, Minnesota, is accepting applications for the 2006 award, which will be given on Earth Day, April 22. Companies, organizations, and individuals who promote the "beneficial effects of green spaces through a major project to create or improve a green space" are eligible. Applications must be postmarked by March 1, 2006. Visit www.projectevergreen.com for more information.

Written by Assistant Editor Viveka Neveln, Editorial Intern William Clattenburg, and Contributing Editor Rita Pelczar.



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Recommendations for Your Gardening Library

Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder

Richard Louv. Algonquin Books, Chapel Hill, North Carolina, 2005. 324 pages. Publisher's price, hardcover: \$24.95.

ARE YOU CONCERNED about how rapidly our children are losing daily contact with nature? In *Last Child in the Woods*, author Richard Louv has coined the term "nature-deficit disorder" to help identify this serious cultural issue. He discusses how it came about, why it is important, and what we can do to remedy it.

Louv's line of argument arises from interviews and focus groups conducted across the country with parents, professionals, and young people. He also draws on writers spanning the last 150 years; and the modest, yet indicative results of scientific research on the positive health impacts of direct experience of nature.

A historical "frontier" perspective spans the book. The "first frontier" was the original settlement of the United States, ending around 1893 with publication of Frederick Jackson Turner's "frontier thesis," which marked the end of "free land" for homesteaders. The "second frontier" of agrarian development, when the majority of the population lived on and from the land, formally ended in 1990 when the Census Bureau ceased counting farm residents. The problematic "third frontier" is very recent and is characterized by the "severance of the public and private mind from food's origins and new urban forms where nature has become a carefully controlled commodity that offers few opportunities for children's messy free play."

Louv calls for opening the "fourth frontier"—the focus on the greening of our cities as the only hope. He identifies parents, not public education, as primary allies in this endeavor. Their voices (and their children's) permeate the book to convince the reader to take action.

Nature holds humanity in a common bond, representing the only path for peace in our post-industrial culture. How can you, as a garden enthusiast, help your city, neighborhood, and home to engage children in nature? Read *Last Child in the Woods* for empowering arguments to support your actions.

—Robin Moore

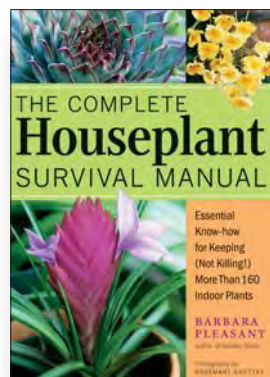
Robin Moore is a professor of landscape architecture at North Carolina State University, where he directs the Natural Learning Initiative (www.naturalearning.org). His books include Natural Learning and Plants for Play (both published by MIG Communications).

The Complete Houseplant Survival Manual

Barbara Pleasant. Photography by Rosemary Kautzky. Storey Publishing, North Adams, Massachusetts, 2005. 384 pages. Publisher's price, softcover: \$24.95.

UNLESS YOU WERE gardening in the 1970s, it is hard to imagine how important houseplants were then. As an example, a book I wrote in 1965, *The World Book of House Plants*, sold nearly two million copies. The Dworkins, Floss and Stan, talked houseplants regularly on WNBC-TV in New York, and Thalassa Cruso, a pal of Julia Child's, frequently lectured Johnny Carson on *The Tonight Show* on the proper way to water potted plants. What seemed at

the time to be a fad has, of course, morphed into a mass renaissance of all kinds of gardening. It is therefore good to see a substantial new houseplant book for the 21st century.



The Complete Houseplant Survival Manual lives up to its promise of providing "essential know-how for keeping (not killing) more than 160 indoor plants." Each plant gets an overview, specifics about their care, propagation, and display, plus a troubleshooting section to help identify the cause and remedy of problems—for instance, why a plant doesn't bloom.

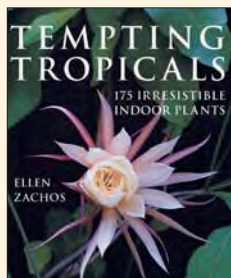
I checked for this under "Abutilon," the first entry, and learned that the cause for a flowering maple not blooming is, "Not enough light, or needs additional fertilizer." Either statement could be true, but in fact, abutilon flowers best when night temperatures are at least 10 degrees cooler than those in the daytime. Checking under "Clivia," another pet of mine, I found the instructions accurate for getting flowers—cool and dry in the fall and early winter, followed by warmer temperatures and more water.

And, if I may mention my two all-time favorite books about houseplants, they are *Garden in Your House* (revised 1971) and *The Art of Training Plants* (1962), both by Ernesta Drinker Ballard, a friend and mentor from 1951 until she died in 2005. Ernesta's books are personable and authoritative. Who else would admit in print that "on state occasions" she turned her plants so the best side faced into the room instead of pressed against the glass? A dip into her books finds Ernesta's spirit alive and well.

—Elvin McDonald

Elvin McDonald is deputy editor of "Gardens" and "Outdoor Living" for Better Homes and Gardens magazine. He also serves on the editorial advisory board of The American Gardener.

TEMPTING TROPICALS (Timber Press, 2005, \$29.95) by Ellen Zachos focuses on 175 exotic and unusual tropical plants that make good houseplants. "There is a significant overlap between houseplants and tropical plants, but they are not identical," explains Zachos. She covers all the basic needs such as light, water, fertilization, pruning and repotting, propagation, and managing pests and diseases. The rest of the book is dedicated to plant profiles, each alphabetized by botanical name and accompanied with color photographs. A glossary, resource list of further reading, and plant-name index round out the book.



—Viveka Neveln, Assistant Editor

Gardens in the Spirit of Place

Page Dickey. Photographs by John M. Hall. Stewart, Tabori & Chang, New York, New York, 2005. 196 pages. Publisher's price, hardcover: \$35.

IN GENERAL, the most successful gardens are ones that are in tune with their surroundings, the ones that are made, as author Page Dickey puts it, "With a sensitivity to the demands of the site, its climate, its soil, its topography." Harmonious gardens are formed—and informed—by their environments.

Instead of theorizing on the subject, Dickey gives examples of 14 gardens from all regions of the country that exemplify this ideal. While you can dip into the book anywhere and enjoy a "visit" to that specific garden, a cover-to-cover read promotes a comprehensive understanding and insight into what it means to design and plant a garden with an eye to both the house it surrounds and the regional setting.



You'll also come away with some great ideas and tips. For example, in a coastal garden in Long Island, garden designer Edwina von Gal graded the lawn so it undulates, echoing the wind-sculpted sand dune visible just beyond. In Virginia, Mary McConnell achieves harmony by using garden plants that are related to those growing wild in the countryside around her home.

Dickey laces her garden tales with interesting tidbits about and insights into the people behind these masterful gardens. At the end of each chapter, you feel you've made a new friend.

The color photographs are excellent, with captions full of detailed information, including valuable plant identification. If you're inspired to reproduce a plant combination in a photograph, you'll have the information to enable you to do so.

—Catriona Tudor Erler

Catriona Tudor Erler is the author of eight garden books, including *Poolscapeing: Gardening and Landscaping Around Your Swimming Pool and Spa* (Storey Publishing, 2003).

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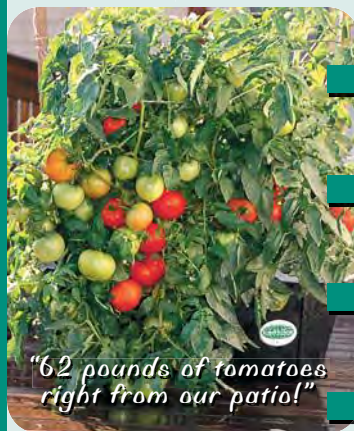
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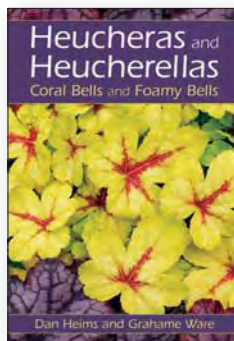
Plant References

SOME PLANTS evoke such passion in people that enthusiasts devote whole societies, gardens, and, of course, books to these plants. Books on one genus or group of plants can help gardeners to appreciate and understand these plants in a new and more complete way. For those who enjoy collecting and breeding various members of a genus, monographs provide a valuable resource for becoming a seasoned connoisseur. Here are some recently published examples about several popular garden plants.

Reliable, tough, and versatile, members of the genus *Hemerocallis* star in ***The Daylily: A Guide for Gardeners*** by John Peat and Ted L. Petit (Timber Press, 2004, \$29.95). After a brief look at the different types of daylilies and the history of their hybridization, the book dives right into descriptions of various cultivars, organized by color. With more than 50,000 registered daylilies, the authors narrow down the dizzying selection by listing cultivars “that grow and perform well over a wide climatic range, that have had a significant impact on breeding programs, and that have won American Hemerocallis Society awards for superior performance.” Most descriptions include color photographs of the flowers. Landscaping with daylilies, cultivation, pests and diseases, and how to hybridize and show them are also addressed.

Another genus of plants prized for its wide variation of flowers is *Iris*, the topic of ***Irises: A Gardener's Encyclopedia*** (Timber Press, 2005, \$49.95). “It would take thousands of pages to include just 10 percent of known irises,” writes author Claire Austin. “Instead, this book is intended merely as a snapshot of this wonderful genus.” At 339 pages filled with over 1000 color photographs, this book provides an impressive gallery of irises, divided into “Bearded Irises,” “Beardless Irises,” and “Bulbous Irises.” Each entry of species and cultivars includes a brief description of the flower, bloom time, and height. Readers also will find concise information on growing and hybridizing these plants.

Members of two closely related genera are the focus of ***Heucheras and Heucherellas: Coral Bells and Foamy Bells*** by Dan Heims and Grahame Ware (Timber Press, 2005, \$27.95). Val-



ued more for their foliage than their flowers, these perennials have leaf colors that run the gamut from chartreuse to purple and almost black. More than 100 color plates show off many of the dazzling shades and leaf shapes of these plants. Most of the book is dedicated to *Heuchera*, detailing the genus's natural history, hybridization, cultivation, and the various species and cultivars. *Heucherella*, a genus in existence for

less than a century and populated by hybrids between *Heuchera* and *Tiarella* parents, receives one slim chapter.

In ***Hibiscus: Hardy and Tropical Plants for the Garden*** (Timber Press, 2004, \$27.95), author Barbara Perry Lawton delves into a diverse genus of plants with more than 200 species and scores of cultivars. As Lawton writes, “Some are herbaceous, others woody. In habit they range from low-growing, spreading types to upright, woody forms that reach up to 30 feet tall.” The book includes descriptions of some of the best-known and most-grown hibiscuses, with chapters on hardy, tropical, and North American species as well as one on the rose of Sharon (*Hibiscus syriacus*).

Made up of “well over a hundred genera and 15 times as many species worldwide, with more still to be named and discovered,” bamboos are grown for their foliage as well as their ornamental stems known as culms.

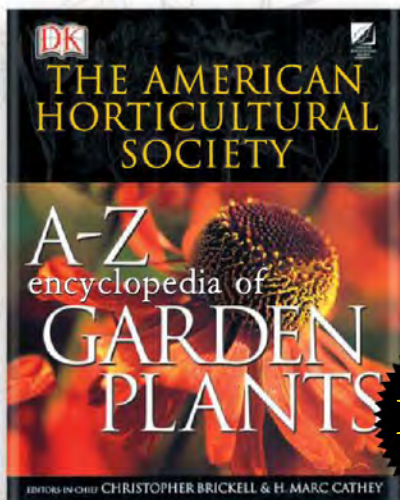
Hardy Bamboos: Taming the Dragon by Paul Whittaker (Timber Press, 2005, \$39.95) takes a look at the more cold-tolerant species—the ones that will survive in USDA hardiness zones 4 to 8. Whittaker effusively shares his 20 years of experience with growing these plants, arguing that most are not the “dragons” that gardeners seem to think they are. The book lists many well-behaved temperate species and points out ones that may need more room to run. Artistic photographs show off the unique textures and colors bamboos can lend to a garden.

—Viveka Neveln, Assistant Editor



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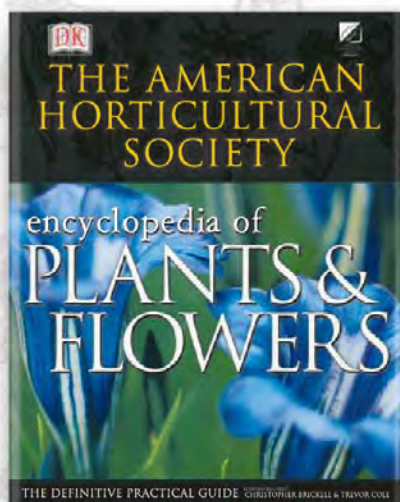
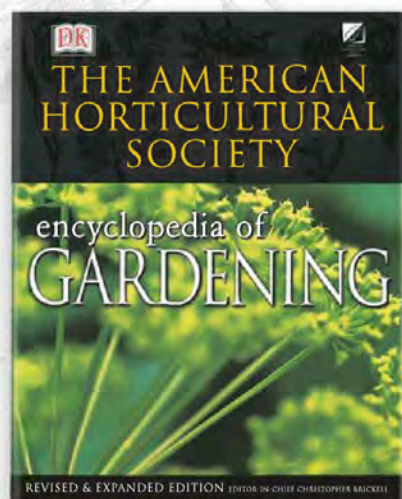
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Welcome to the Green Garage®

by Rita Pelczar

A MERICAN GARDENERS make choices every day. Whether selecting equipment and tools, deliberating over cultural practices, or choosing plants, we are routinely afforded opportunities to make decisions that will lead us down an “earth friendly” path to a beautiful garden. Over the last decade, as awareness of the value of sustainable landscaping has increased, manufacturers of garden products have responded by focusing on development of more environmentally responsible supplies and tools.

The American Horticultural Society recently launched an innovative program called the Green Garage® to spread the word about garden products, supplies, techniques, and practices that are safe, smart, and environmentally friendly. Each upcoming issue of this magazine will cover a gardening topic showcasing current research, pertinent new products, and efficient strategies that reflect the earth friendly philosophy that was essential to the SMARTGARDEN™ program begun by the American Horticultural Society in 2000.

With the help of several sponsors, the AHS has created a traveling Green Garage® exhibit that will be unveiled at the Philadelphia Flower Show this spring (see article on page 8).

The prototype Green Garage® can be viewed at the AHS’s River Farm headquarters, where it has been set up for the past year. The garage is located beside the main visitor walkway, adjacent to the Garden Shop. Be sure to stop by the garage if you are at River Farm for any of the many events scheduled this year.

IDENTIFYING GREENER ALTERNATIVES

The aim of the Green Garage® is to encourage gardeners to take a look at their current practices, to give themselves a pat on the back for the good things they are already doing, and to consider alternatives that will help them enjoy their favorite hobby while working in harmony with nature. Studies at agricultural research stations and universities across the country have demonstrated that many new gardening products are both effective and environmentally friendly. Some traditional tools and techniques have

been improved, making them more efficient or easier to use. The new Green Garage® initiative will help you identify products and strategies that are appropriate for your gardening needs and suggest ways to integrate them into your gardening routine. Here are several goals of the program.

- Familiarize gardeners with available tools, equipment, and products that address specific gardening needs and understand the range of tasks to which each can be applied.
- Help gardeners identify the best tool for each job, the one that is the most efficient and effective and has the least negative environmental impact. For example, gardeners should consider using hand tools rather than power tools when the size or scope of a job is appropriate. (Remember

that one of the health benefits of gardening is physical activity.)

- Identify products and techniques that accomplish your goals without harming the environment. Example: killing weeds by solarizing soil rather than using chemical herbicides.
- Address the maintenance and repairs for tools and equipment as well as storage solutions that may extend their usable life span and assure their efficient operation.
- Provide information regarding safe storage of fertilizer and pesticide products, and advice on the safest way to dispose of unused chemicals or other hazardous materials.
- Offer strategies for keeping tools, equipment, seeds, soil, etc. organized and easy to locate when you need them, and how to increase the efficiency of your work area.



The Green Garage display at River Farm features earth-friendly tools and products.



The Green Garage® will help gardeners make informed choices about the products they use.

■ Develop a methodology for pesticide use to include first identifying the pest or disease and assessing its potential for damage. If the decision is made to use a pesticide, select the least toxic option and apply it safely, according to directions.

■ Promote recycling whenever possible. Consider composting, mulching with grass clippings or chopped leaves, and other practices that reduce waste or material that is sent to the landfill while accomplishing your gardening goals.

■ Advise gardeners about personal safety in the garden: use of protective gear, gloves, sunscreen, insect repellent, etc.

■ Provide resources to help gardeners select the plants most appropriate for their local climate and soil type. Selecting the right plants helps to reduce the need for supplemental water as well as synthetic fertilizers and pesticides.

DEFINING THE "GARAGE"

Wait a minute, you say, what if I don't have a garage? Not a problem. Remember this is as much a concept as a location. Your "green garage" may actually be a garden shed, a barn, a cabinet, or simply a shelf in your apartment. Think of the place you consider your gardening head-

quarters—where you store your gardening tools and supplies.

As you look around your storage area, assess how well your supplies meet the needs of your gardening chores and how well they ensure your safety while doing them. At the same time, consider how use of these products reflects your attitude toward the environment.

How Green is Your Garage?

Take a moment to log onto the AHS website and take the Green Garage® Self Assessment Quiz. Some of the questions may suggest simple ways you can increase your gardening efficiency while decreasing negative environmental impact. Just go to www.ahs.org and click on the link for this magazine issue. Select the Green Garage® quiz from the table of contents.

As part of the program, you can take a simple self-assessment quiz (see box, left) to help you determine how earth-friendly your current garage is. Picture your gardening headquarters and see how many "green" choices you can identify.

The Green Garage® is both a philosophy and a place. It's where we begin our gardening tasks, lining up the tools, products, and attitude that we will use to accomplish our goals. The choices we make reflect our awareness of the world around us. To someone who plans to work from a green garage, each choice will be weighed against its environmental impact. Like the physicians' Hippocratic Oath, the first and most important rule one should follow is to "do no harm"—to the environment.

Rita Pelczar is a contributing editor for The American Gardener.

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NORTHEAST

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

RAP JAN. 24. **Plant-o-rama.** Trade show and symposium. Co-hosted by Metro Hort Group. Brooklyn Botanic Garden. Brooklyn, New York. (718) 623-7200. www.bbg.org.

FEB. 16. **Outside the Not So Big House: Creating the Landscape of Home.** Lecture by Julie Moir Messervy. Wellesley College Friends of Horticulture. Wellesley, Massachusetts. (781) 283-3094. www.wellesley.edu/FOH/events1.html.

RAP FEB. 22. **Digging In: The Garden as a Personal Metaphor.** Lecture. Wave Hill. Bronx, New York. (718) 549-3200. www.wavehill.org.

FEB. 23–26. **Symphony for the Senses.** Rhode Island Spring Flower & Garden Show. Rhode Island Federation of Garden Clubs, Inc. Providence, Rhode Island. (401) 272-0980. www.flowershow.com.

Looking ahead

MAR. 3–5. **Gramercy Garden & Antique Show.** Stella Show Management Company. New York, New York. (212) 255-0020. www.stellashows.com.

MAR. 18. **Growing a Green Generation: Second Annual Conference.** University of New Hampshire Cooperative Extension. Durham, New Hampshire. (603) 862-3200. E-mail: Cheryl.estabrooke@unh.edu.

MID-ATLANTIC

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

JAN. 28 & 29. **Centennial Kickoff Weekend.** Longwood Gardens. Kennett Square, Pennsylvania. (610) 388-1000. www.longwoodgardens.org.

RAP JAN. 31 & FEB. 1. **Native Landscape Design: Reality Versus Perception.** Symposium for professionals. Morris Arboretum, Connecticut College Arboretum, New Directions in the American Landscape. Villanova, Pennsylvania. (215) 247-5777 ext. 156. www.upenn.edu/arboretum.

RAP FEB. 5. **Front Lawn Alternatives.** Lecture. Green Spring Gardens Park. Alexandria, Virginia. (703) 642-5173. www.greenspring.org.

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

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

FEB. 7. **Houseplant Care.** Workshop. United States Botanic Garden. Washington, D.C. (202) 225-8333. www.usbg.gov.

FEB. 9. **Lunchtime Lecture: Exploring China.** Scott Arboretum of Swarthmore College. Swarthmore, Pennsylvania. (610) 328-8025. www.scottarboretum.org.

FEB. 9–12. **Maymont Flower & Garden Show.** Maymont Foundation. Richmond, Virginia. (804) 358-7166 ext. 314. www.maymont.org.

FEB. 9–12. **Washington Home & Garden Show.** Washington Home & Garden Show, Inc. Washington, D.C. (703) 823-7960. www.washingtonhomeandgardenshow.com.

FEB. 24. **Green Matters: After the Rain.** Presentation. Brookside Gardens. Wheaton, Maryland. (301) 962-1470. www.brooksidegardens.org.

Looking ahead

AHS MAR. 5–12. **Philadelphia Flower Show.** Philadelphia Convention Center. Philadelphia, Pennsylvania. (215) 988-8800. www.theflowershow.com.

SOUTHEAST

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

RAP THROUGH MAY 31. **Chihuly at Fairchild.** Exhibition. Fairchild Tropical Botanic Garden. Coral Gables, Florida. (305) 667-1651. www.fairchildgarden.org.

JAN. 20 & 21. **Southern Gardening Symposium.** Callaway Gardens. Pine Mountain,

Georgia. (706) 663-5187. www.callawaygardens.com.

RAP JAN. 21 & 22. **Annual Camellia Show.** Harry P. Leu Gardens. Orlando, Florida. (407) 246-2620. www.leugardens.org.

RAP FEB. 4. **Perennial Plant Symposium: Gardening with a Southern Accent.** Atlanta Botanical Garden. Atlanta, Georgia. (404) 876-5859. www.atlantabotanicalgarden.org.

RAP FEB. 16. **Organic Gardening Forum.** Birmingham Botanical Gardens. Birmingham, Alabama. (205) 414-3900. www.bbgardens.org.

FEB. 27 & 28. **Davidson Horticultural Symposium XXII.** Davidson College. Davidson, North Carolina. (704) 892-6281. www.davidsonsymposium.org.

Looking ahead

MAR. 2–5. **Nashville Lawn & Garden Show.** Horticultural Association of Tennessee. Nashville, Tennessee. (615) 876-7680. www.nashvillelawnandgardenshow.com.

NORTH CENTRAL

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

JAN. 21. **Herb Day.** Lectures and retail event. University of Illinois Extension. Urbana, Illinois. (217) 333-1969. E-mail: cevoigt@uiuc.edu.

JAN. 23–25. **Central Environmental Nursery Trade Show.** Ohio Nursery & Landscape Association. (614) 899-1195. www.onla.org.

RAP FEB. 4. **Winter Woods Walk.** Klehm Arboretum. Rockford, Illinois. (815) 965-8146. www.klehm.org.

FEB. 4–12. **National City Cleveland Home & Garden Show.** National City Bank. Cleveland, Ohio. (800) 600-0307. www.homeandflower.com.

RAP FEB. 12. **Valentines in Paradise Dance.** Olbrich Botanical Gardens. Madison, Wisconsin. (608) 246-4550. www.olbrich.org.

RAP FEB. 24. **Woody Plants Symposium.** Chicago Botanic Garden. Glencoe, Illinois. (847) 835-6829. www.chicagobotanic.org.

SOUTH CENTRAL

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

RAP FEB. 4. **Arbor Day Plant Sale.** Crosby Arboretum. Picayune, Mississippi. (601) 799-2311. www.msstate.edu/dept/crec/camain.html.

RAP FEB. 9. **Native Plant Propagation.** Learning session. Missouri Botanical Garden. St. Louis, Missouri. (314) 577-5100. www.mobot.org.

FEB. 11. **Lawn & Garden Seminar and Show.** Jefferson County Master Gardeners. Pine Bluff, Arkansas. (870) 534-1033. E-mail: rmorris@uaex.edu.

Looking ahead

MAR. 1-5. **Some Enchanted Spring: Wichita Garden Show.** Wichita, Kansas. (316) 946-0883. www.wichitagardenshow.com.

SOUTHWEST

AZ, NM, CO, UT

RAP JAN. 31. **Romancing the Site.** *Horticulture Magazine Symposium.* Co-sponsored by the Denver Botanic Gardens. Denver, Colorado. (877) 436-7764. www.hortmag.com.

RAP FEB. 1. **Scentsational Gardening.** Workshop. Desert Botanical Garden.

"sLowlife" at the United States Botanic Garden

THE INTRIGUING AND dynamic life of plants is the subject of a new exhibit debuting at the United States Botanic Garden (USBG) in Washington, D.C. Titled "sLowlife," the exhibit opened last fall in the West Orangerie and will remain in the USBG until March 26, 2006. Then it will move to the Chicago Botanic Garden, its first stop on a seven-year tour.

"sLowlife" was born out of the imagination of Roger Hangarter, a biology professor at Indiana University. Wanting to make his plant science class more interesting to students, Hangarter first developed "sLowlife" as a computer-based presentation. This expanded into a standing exhibit that blended biology and art before its national debut at the USBG.

"The goal was to create an experience that would be aesthetically interesting and enjoyable while being scientifically accurate and educational," Hangarter said. "Our hope is that visitors who go through the gardens [at the USBG after seeing "sLowlife"] will see the plants differently than if they had just come to see the flowers."

Upon entering the exhibit space, visitors are greeted with a set of three images: a replication of a still-life by a 17th-century Dutch painter and two time-lapse videos of cut flowers dying in vases. These videos set the tone for the rest of the exhibit, challenging the idea that plants are still, inactive life forms. Throughout the exhibit, time-lapse videos, photographs, displays, and music each contribute to a fuller sense of the fascinating biological processes of plant life.

For more information, call (202) 225-8333 or visit www.usbg.gov.

—William Clattenburg, Editorial Intern



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Phoenix, Arizona. (480) 941-1225.
www.dbg.org.

FEB. 7–28. **Landscape Design with Margaret West.** Class. Tucson Botanical Gardens. Tucson, Arizona. (520) 326-9686.
www.tucsonbotanical.org.

FEB. 14. **Trade Show & Conference.** Nevada Landscape Association. Reno, Nevada. (800) 645-9794. www.nevadanla.com.

Looking ahead

MAR. 9–11. **Xeriscape Conference.** Xeriscape Council of New Mexico. Albuquerque, New Mexico. (505) 468-1021.
www.xeriscapenm.com.

MAR. 18. **Spring Plant Sale.** Tucson Botanical Garden. Tucson, Arizona. (520) 326-9686. www.tucsonbotanical.org.

WEST COAST

CA, NV, HI

JAN. 28. **Romancing the Site.** *Horticulture Magazine* Symposium. Co-sponsored by San Francisco Botanical Society. San Francisco, California. (877) 436-7764.
www.hortmag.com.

FEB. 13. **Landscape Preservation: Time and the Art of Gardening.** Lecture. San Diego Horticultural Society. Del Mar, California. (760) 730-3268. www.sdhortsoc.org.

RAP FEB. 23–26. **Camellia Festival.** Descanso Gardens. La Cañada Flintridge, California. (818) 949-4200.
www.descansogardens.org.

Looking ahead

MAR. 13. **The Tropical Paradise Garden with Summer Bulbs.** Lecture. San Diego Horticultural Society. Del Mar, California. (760) 730-3268. www.sdhortsoc.org.

MAR. 24–26. **Santa Barbara International Orchid Show.** Earl Warren Showgrounds. Santa Barbara, California. (805) 969-5746.
www.sborchids@west.net.

NORTHWEST

AK, ID, MT, OR, WA, WY

JAN. 29. **Romancing the Site.** *Horticulture Magazine* Symposium. Co-sponsored by The Hardy Plant Society of Oregon. Portland, Oregon. (877) 436-7764.
www.hortmag.com.

RAP FEB. 8–12. **Northwest Flower and Garden Show.** Washington State Convention and Trade Center. Seattle, Washington. (206) 325-4510. www.arboretumfoundation.org.

FEB. 22–26. **Portland Home & Garden Show.**

New Museum in San Francisco Boasts Extensive Grounds and Gardens

THE OCTOBER OPENING of the new de Young Museum has revitalized San Francisco's Golden Gate Park to the delight of locals and tourists alike. While the building itself is impressive with its copper-clad façade, iconic tower, and angled glass walls that provide glimpses of the artwork on view inside, the de Young's grounds are beautiful to behold and graciously inviting.

Designed by landscape architect Walter Hood, the layout flows from the de Young's outdoor terraces. Near J.F.K. Drive, the terrain is reconfigured as a hillside covered in bunny grasses, alluding to sand dunes that once blanketed the area. Hood visually links the emerald backdrop of Monterey cypresses and redwoods with the contours of newly planted specimens to "bring the park up against the building."

Abetted by a structural hedge of white camellias, the undulating landscape of the Barbro Osher Sculpture Garden unfolds before an outdoor café. Where stands of black bamboo flank a secreted entryway, artist James Turrell's site-specific environment, *Three Gems*, captures the shifting light and fog overhead.

The precise placement of a diagonal arrangement of arborvitae points the way to the de Young's main entrance. The front plaza is a masterstroke: Its sweeping pattern takes in horizontal swaths of lawn, softly colored paved walkways, and ornamental grasses. The Pool of Enchantment and a Children's Garden complete Hood's vision.

Having expanded the de Young gardens' boundaries to resonate within the parkland, the captivating new landscape is free to the public. Call (415) 750-3600 or visit www.thinker.org for more information.

—Alice Joyce, *GardenWalks* columnist, San Francisco Chronicle



The renovated gardens at the de Young provide a setting for the museum's outdoor sculpture collection.

O'Loughlin Trade Shows. Portland, Oregon. (503) 246-8291.
www.oloughlintradeshows.com.

Looking ahead

RAP MAR. 11. **Plant Troughs.** Lecture. Seed & Weed Garden Club. Cheyenne Botanic Gardens. Cheyenne, Wyoming. (307) 637-6459. www.botanic.org.

CANADA

RAP FEB. 12. **Propagation.** Workshop. Horticulture Centre of the Pacific. Victoria, British Columbia. (250) 479-6162.
www.hcp.bc.ca.

FEB. 16. **Growing Perennials From Seed.** Workshop. The Arboretum at the University of Guelph. Guelph, Ontario. (519) 824-4120 ext. 52113. www.uoguelph.ca/arboretum.

FEB. 22. **Outside the Not So Big House: Creating the Landscape of Home.** Lecture. Toronto Botanical Garden. Toronto, Ontario. (416) 397-1340. www.torontobotanicalgarden.ca.

FEB. 25. **Seedy Saturday.** A celebration of heritage varieties and organic gardening. Van Dusen Botanical Garden. Vancouver, British Columbia. (604) 878-9274.
www.vandusengarden.org.



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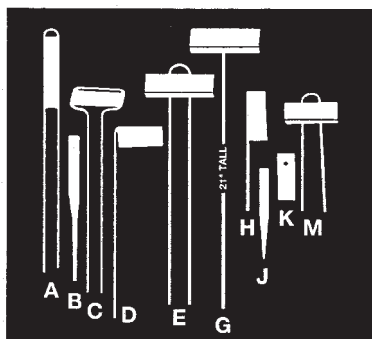
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Special invitations to educational programs such as the AHS Garden Schools and AHS partner events that include the Epcot International Flower & Garden Festival and the Colonial Williamsburg Foundation Garden Symposium.

AHS Online Our Web site (www.ahs.org) contains a wealth of information, including articles from *The American Gardener*, members-only pages with special information and updates, and links to other prominent gardening sites.

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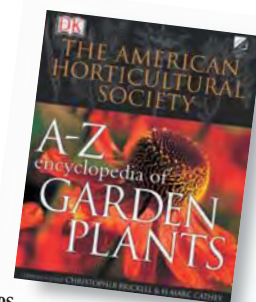
Heat Tolerance Map In 1997, AHS introduced the AHS Plant Heat Zone Map, which has revolutionized the way American gardeners select region-appropriate plants.

Book Program AHS and DK Publishing, Inc., have teamed up to create a definitive horticultural reference library for the 21st century.

SMARTGARDEN™ Launched in 2000, this AHS program uses existing tools, such as the USDA Plant Hardiness and AHS Plant Heat Zone codes, and considers new criteria to develop guidelines that best reinforce our stewardship of the earth.

Horticultural Intern Program Horticulture students from around the country get hand's-on experience in garden maintenance and design and an opportunity to work with leading gardening experts.

National Awards Program The Great American Gardeners Awards recognizes individuals and organizations who have made significant contributions to horticulture. The Flower Show Awards spotlight earth-friendly garden displays at flower shows. Noteworthy garden books are the focus for our Book Awards program.



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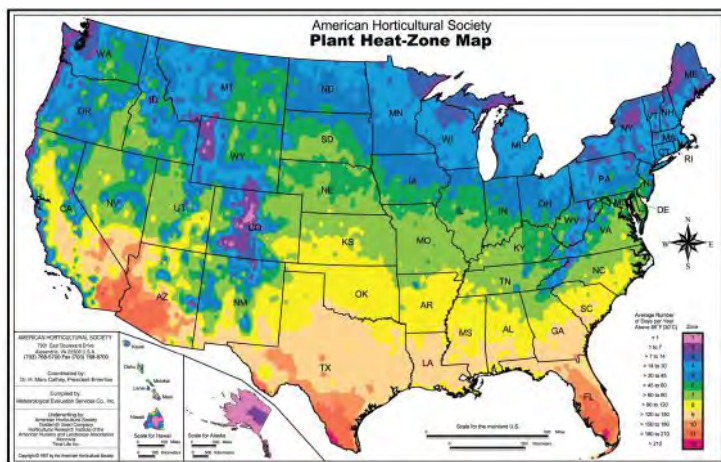
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PRONUNCIATIONS AND PLANTING ZONES

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

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

To purchase a two-by-three-foot glossy AHS Plant Heat Zone Map for \$9.95, call (800) 777-7931 or visit www.ahs.org. Hardiness and Heat zone codes are generated by AHS and documented in the Showtime® database, owned by Arabella Dane.



A–G

- Abies cephalonica*** AY-beez sef-uh-LON-ih-kuh (USDA 6–8, AHS 8–6)
Acer rubrum AY-ser ROO-brum (3–9, 9–1)
Aesculus pavia ES-kyew-lus PAY-vee-uh (5–9, 9–1)
Albizia julibrissin al-BEEZ-yuh jew-lih-BRISS-en (6–10, 10–6)
Alternanthera ficoidea al-tur-NAN-thur-uh fih-KOY-dee-uh (9–11, 12–1)
Callicarpa americana kal-lih-KAR-puh uh-mair-ih-KAN-uh (7–9, 9–6)
Canna × generalis KAN-nuh jen-er-RAY-liss (8–11, 12–1)
Caryopteris × clandonensis kair-ee-OP-tur-iss klan-doh-NEN-siss (5–9, 9–1)
C. incana C. in-KAN-uh (5–9, 9–1)
Chionanthus virginicus ky-o-NAN-thus vir-JIN-ih-kus (4–9, 9–1)
× Chiranthofremontia lenzii ky-RAN-tho-free-MON-tee-uh LEN-zee-eye (7–11, 12–7)
Crinum americanum KRY-num uh-mair-ih-KAN-um (8–11, 12–8)
Cucurbita maxima kew-KER-bih-tuh MAKs-ih-muh (0–0, 12–1)
Cycas revoluta SY-kas reh-vo-LOO-tuh (11, 12–6)
Cypripedium kentuckiense sip-rih-PEE-dee-um ken-tuh-kee-EN-see (3–7, 7–1)
Diascia integririma dye-ASH-ee-uh in-teh-JER-ih-muh (7–9, 9–1)
Echinacea paradoxa ek-ih-NAY-see-uh pair-uh-DOK-sah (6–9, 9–2)
E. purpurea E. pur-PUR-ee-uh (3–9, 12–1)
Epimedium × versicolor ep-ih-MEE-dee-um vur-SIK-uh-lur (5–9, 9–1)
Euphorbia hybericifolia yew-FOR-bee-uh hy-bair-ih-sih-FO-lee-uh (9–11, 12–1)
Gaylussacia dumosa gay-loo-SAK-ee-uh doo-MO-suh (3–7, 7–1)

H–P

- Helianthus angustifolius*** hee-lee-AN-thus ang-gus-tih-FO-lee-us (6–9, 9–4)
Helleborus foetidus hel-eh-BOR-us FEE-tih-dus (4–10, 10–1)
Hydrangea macrophylla high-DRAN-juh mak-ro-FIL-luh (4–9, 9–4)
H. serrata H. sair-RAY-tuh (6–10, 10–6)
Iris brevicaulis EYE-riss brev-ih-KAW-liss (6–9, 9–6)
I. virginica I. vir-JIN-ih-kuh (5–9, 9–5)
Kalmia latifolia KAL-mee-uh lat-ih-FO-lee-uh (5–9, 9–5)
Lavandula multifida lah-VAN-dyew-luh mul-TIF-ih-duh (8–12, 12–8)
L. stoechas L. STEE-kas (7–9, 9–7)
Liriodendron tulipifera leer-ee-o-DEN-dron too-lih-PIF-ur-uh (5–9, 9–2)
Lobelia cardinalis lo-BEEL-yuh kar-dih-NAL-iss (2–8, 8–1)
Meliiodendron xylocarpum mel-lee-o-DEN-dron zie-lo-KAR-pum (6–10, 10–1)

- Metasequoia glyptostroboides*** met-uh-suh-KWOY-uh glip-toh-stro-BOY-deez (5–11, 12–1)
Nicotiana × sanderae nih-ko-shee-AN-uh san-DUR-ee (10–11, 12–1)
Nigella damascena ny-JEL-luh dam-uh-SEE-nuh (0–0, 12–1)
Onoclea sensibilis on-o-KLEE-uh sen-sih-BIH-liss (4–9, 9–1)
Osmunda cinnamomea ahz-MUN-duh sin-uh-MO-mee-uh (3–9, 9–1)
Panicum virgatum PAN-ih-kum vur-GAY-tum (5–9, 9–1)
Papaver orientale puh-PAH-vur or-ee-en-TAH-lee (4–9, 9–1)
Penstemon digitalis PEN-steh-mon dih-jih-TAL-iss (3–8, 8–1)
P. smallii P. SMAW-lee-eye (5–9, 9–1)
Physocarpus opulifolius fie-so-KAR-pus op-yew-lih-FO-lee-us (3–7, 7–1)
Pinus ponderosa PIE-nus pon-deh-RO-suh (5–8, 8–5)
Polystichum acrostichoides pah-LIS-tih-kum uh-kros-tih-CHOY-deez (3–8, 8–1)
Pseudolarix amabilis soo-doh-LAY-riks uh-MAB-uh-liss (5–8, 8–4)

Q–Z

- Quercus macrocarpa*** KWER-kus mak-ro-KAR-puh (3–9, 9–1)
Rhus trilobata RUS try-lo-BAY-tuh (4–8, 8–1)
Rhynchospora colorata rin-KOS-por-uh kul-ler-AY-tuh (7–10, 12–7)
Rosmarinus officinalis roze-muh-RY-nus oh-fiss-ih-NAL-iss (8–10, 12–8)
Rudbeckia fulgida rood-BEK-ee-uh FUL-jih-duh (3–9, 10–1)
R. hirta R. HUR-tuh (3–7, 10–1)
R. triloba R. try-LO-buh (3–11, 12–1)
Salvia farinacea SAL-vee-uh fah-rih-NAY-see-uh (8–11, 12–1)
S. greggii S. GREG-ee-eye (7–9, 9–4)
S. lyrata S. ly-RAY-tuh (5–10, 10–5)
S. spathacea S. spath-uh-SEE-uh (7–11, 12–7)
S. splendens S. SPLEN-denz (11–12, 12–1)
Sambucus nigra sam-BOO-kus NY-gruh (4–7, 7–1)
Sassafras albidum SASS-uh-frass AL-bih-dum (4–8, 8–3)
Saururus cernuus saw-RUR-us sur-NOO-us (5–10, 12–5)
Sorghastrum nutans sor-GASS-trum NOO-tanz (4–9, 9–1)
Stachys byzantina STAY-kiss bih-zan-TY-nuh (4–8, 8–1)
Taxodium ascendens taks-O-dee-um uh-SEN-denz (5–11, 12–5)
T. distichum T. DIS-tih-kum (5–11, 12–5)
Tellima grandiflora tel-LEE-muh gran-dih-FLOR-uh (4–8, 8–1)
Trifolium repens try-FO-lee-um REP-enz (4–8, 8–1)
Viburnum prunifolium vy-BER-num proo-nih-FO-lee-um (3–9, 9–1)
Zelkova serrata zel-KO-vuh sair-RAY-tuh (5–9, 9–5)
Zinnia elegans ZIN-ee-uh EL-ih-ganz (0–0, 12–1)

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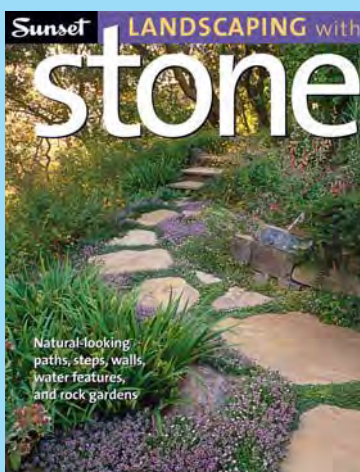
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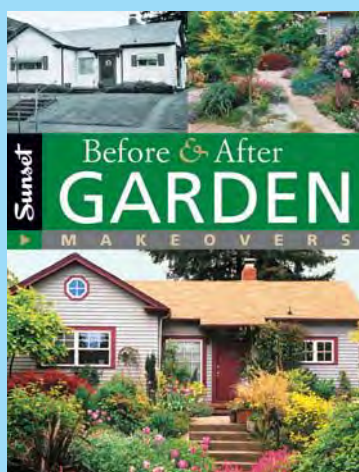
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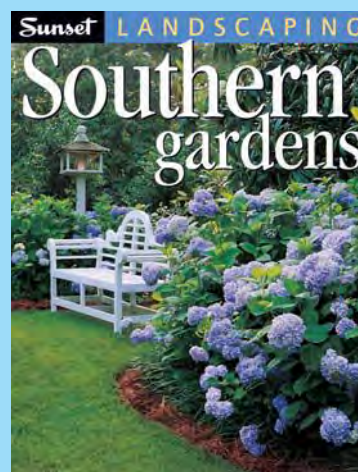
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