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# contents

Volume 85, Number 3 · May / June 2006

#### F E A T U R E S



# 16 CLIMBING AND RAMBLING ROSES

BY IEFF COX

Here are 10 beguiling climbing and rambling roses ideal for creating romantic vignettes in your garden.

#### 22 INSPIRED GARDEN ART

BY LINDA MCINTYRE

Beyond embellishment, garden art expresses the individuality and soul of the gardener.

# 26 EVERGREEN SHRUBS

BY CAROL BISHOP MILLER

For maximum versatility in landscaping, these mid-size evergreens are tough to beat.



# 31 THE ALLURE OF MEADOW GARDENS BY CAROLE OTTESEN

Creating a meadow garden takes patience and determination, but the results can be incredibly rewarding.

# 36 HIGH-IMPACT FOLIAGE

BY C. COLSTON BURRELL

Hardy herbaceous perennials with bold foliage add drama and texture to the garden.

ON THE COVER: 'New Dawn' rose rambles along a picket fence in a Cape Cod, Massachusetts, garden designed by Tim Callis.

Photograph by Karen Bussolini

#### DEPARTMENTS

#### **5 NOTES FROM RIVER FARM**

6 MEMBERS' FORUM

#### 8 NEWS FROM AHS

AHS Green Garage exhibit a hit at the Philadelphia Flower Show, AHS President Katy Moss Warner to retire in June, River Farm to host Fashion in Bloom in September, AHS native plant Garden School a success, Lady Walton charms Washington, D.C.

#### 14 AHS NEWS SPECIAL

New children's garden in Missouri.

## 42 HABITAT GARDENING

Eastern deciduous forest.

# 44 ONE ON ONE WITH...

Bill Radler, rose breeder.

# 46 GARDENER'S NOTEBOOK

Experts say concern about termite-infested mulch are unwarranted, best *Oenothera* species for the Midwest, predictions of pest problems from around the country, insect-repelling properties found in beautyberry leaves, record-setting bird count points to diversity.

#### 50 AN APPRECIATION

Christopher Lloyd, plantsman.

#### 52 GREEN GARAGE®

Sun protection for gardeners.

# 54 BOOK REVIEWS

P. Allen Smith's Colors for the Garden, Gardens by Design, Planting Design, and Cultivating Words.

**Special focus:** Regional gardening.



#### 58 REGIONAL HAPPENINGS

62 HARDINESS AND HEAT ZONES AND PRONUNCIATIONS



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# **NOTES FROM RIVER FARM**

HANKS TO A mild winter and cool spring—not to mention 20,000 bulbs donated last fall—this has been the most beautiful spring I can remember here at George Washington's River Farm. The daffodils and hellebores opened early and then kept blooming for weeks, while the many different specialty bulbs have surprised us at every turn. Now, as I write this, we are surrounded by thousands of tulips as our *Washington Blooms!* celebration is in full swing.

It was a special treat this year to see hundreds of purple crocuses pop out of the ground in bold X's and O's, just as Dr. H. Marc Cathey predicted when we planted them with him to celebrate his birthday last October. It is his special loving way of reminding us to celebrate the beauty of the natural world and have fun doing it!

Spring always signals change—change from the somber landscapes of winter to bright joyful colors heightened by glorious blue skies and the apple-green foliage of the trees just coming into leaf. While nature is in transition at this time, so is our American Horticultural Society (AHS). On June 3 this year I am retiring as president of the AHS after four years. The position is now open for the next generation of horticultural leadership in America! (See news article on page 8.)



I have great confidence that the right people and programs are in place at the AHS to maintain the positive momentum that has been building over the past few years. The staff is exceptional, with dedicated and experienced leaders in each of our departments. We have a strong Board of Directors that includes prominent leaders in all fields of American horticulture.

Our membership is growing steadily thanks to enthusiasm for the new educational programs and unique member benefits only the AHS can offer. Our partnerships with other gardening and conservation organizations in America are expanding our collective ability to provide gardeners with valuable information and inspiration. And we are building excitement around a Capital Campaign that will transform our headquarters at River Farm into a National Center for American Horticulture. From this innovative and forward-thinking platform, the AHS will deliver dynamic programs to gardeners, students, educators, horticultural professionals, and garden communicators throughout the country.

I have been asked by the AHS Board to maintain my involvement with the AHS in the capacity of president emeritus. I am truly honored to take on this new role and look forward to working closely with these extraordinary leaders of American horticulture as we move ahead with the Capital Campaign and fulfillment of our inspiring new Master Plan for River Farm.

To each of you, our AHS members, I thank you for your wonderful support, your active involvement, and for the stories, photos, and plants you have shared with me. I encourage you to continue your passionate engagement with the activities and mission of the AHS and help us grow in the exciting times ahead.

My very best wishes to all of you.

Happy Gardening!

—Katy Moss Warner, AHS President

Faty Mon Warner

# **MEMBERS' FORUM**

#### WRONG TRACK ON WEEDS

The article "Getting a Grip on Weeds" by Kris Wetherbee, published in the January/February issue, was so far off in its approach to weed control that I felt compelled to write.

The article led off with some good information about how weeds arrive in a garden and why we should not delay in addressing them. But when it comes to methods of control, most of the suggestions offered will only work in small gardens for people who do not mind constant, labor-intensive weed removal.

I have been gardening for 65 years, and for 40 of these have taken on weed elimination as a personal and rewarding crusade. My wife and I garden on seven and one half acres and all garden tasks are done by the two of us. Based on careful recordkeeping, we estimate about 60 hours a year is spent in controlling weeds. That's about 18 minutes a day on average from mid-April to mid-November. During those 40 years, we have completely eradicated major weeds by mulching with chopped leaves, using plants for their ground-covering ability, and carefully applying low levels of glyphosate-based herbicides. We use less than one gallon each year to target all weeds at the earliest possible moment. Our goal is to never let a weed flower, and certainly never allow one to go to seed.

And, contrary to what was stated in the article, glyphosate, applied in the manner we use it, is not expensive. As for toxicity, I would defy anyone to show that glyphosate is more toxic than concentrated acetic acid; or for that matter, than table salt.

We may "never win the war against weeds," but we have certainly won many battles, and without a great expenditure of time, energy, or money.

Richard W. Lighty and Sally B. Lighty Kennett Square, Pennsylvania

#### RIGHT TRACK ON WEEDS

I applaud you for publishing the story in the January/February issue on dealing with weeds without resorting to chemical measures. It was a very thorough primer that covered a variety of methods. I have used several of the techniques suggested by Kris Wetherbee and over the years I have seen a great reduction in the amount of time I have to devote to weeding. I spend the extra time watching the wonderful birds and butterflies that thrive in my "chemical-free" garden! Thank you for sharing eco-friendly techniques for weed control.

Cindy Combs Seattle, Washington

**Editor's response:** We asked Kris Wetherbee to write about methods of preventing and controlling weeds using least-toxic practices and products because many AHS members seem interested in reducing or eliminating the use of synthetic herbicides.

There's no doubt that if complete control of problem weeds is the goal, herbicides are necessary in some cases—and generally more efficient. But part of what makes gardening so appealing is that there are many ways of producing a beautiful landscape. Environmental and lifestyle factors play a role in our choices of how and where to garden, and what works well for one gardener or best suits his or her personal philosophy may not be what works best for another.

#### IMPROPER PLANT NOMENCLATURE

I believe that the American Horticultural Society should take extra care in presenting names for cultivated plants. Many in the nursery trade mangle the presentation of cultivar epithets; the AHS should be a shining light in the darkness!

A case in point is on page 15 of the January/February issue: *Canna* 'Tropicanna™ Black'. Principle 3 of the *Cultivated Plant Code* [a compilation of the international rules for naming plants in cultivation] includes the sentence: "Each cultivar or Group with a particular circumscription can bear only one accepted name." (Of course, it may also be identified with a trade designation.) And Principle 4 states: "Names of plants must be universally and

freely available for use by any person to denote a distinguishable group of plants." Cultivar names are identified uniquely by being enclosed in single quotation marks.

The purpose of trademarking is to prevent free use of a name. I know that the *Cultivated Plant Code* does not have legal force, but shouldn't the AHS—which aspires to leadership in the horticultural community—provide stimulus for the nursery industry to follow the Code? Ultimately it would be in the interest of all.

Donald H. Voss Vienna, Virginia

#### **ENID HAUPT'S GARDEN LEGACY**

Thank you for the wonderful article about Enid Annenberg Haupt in the January/February issue. Her name came to my attention when visiting the Smithsonian in the 1980s. I have long been one

#### **CORRECTIONS**

Thanks to sharp-eyed Richard Lighty for alerting us to a misidentified plant on page 47 of the March/April 2006 issue, shown below. The plant is Coves' cassia (Senna covesii, syn. Cassia covesii), native to the southwestern United States and northern Mexico.



In the March/April issue, the photo credits on pages 44 and 45 should have read: Steve Newman/Colorado State University Department of Horticulture and Landscape Architecture. In the same issue, the photo credits for page 32 should have read: Top: Bill Johnson. Bottom: Jerry Pavia.

of her admirers and visit her garden whenever I am in Washington, D.C. How fortunate we are that her generosity provided us with so many gardens that add beauty to their locations.

> Jeanne Marsh Hanover, Pennsylvania

#### **MYSTERY BULB**

The article on native bulbs in the March/April 2006 issue fascinated me. In years past I have had a few yellow trout

lilies in my Philadelphia garden, but not recently. However, about five years ago, I noted some spotted leaves with batiklike patterns emerging at the edge of the garden mulch. The leaves were like those of the yellow trout lily, but the ensuing flowers were a deep pink and the petals were reflexed. Over time one plant has become three and they bloom reliably every spring.

I assume this plant arrived with the mulch, but am not certain. So far I have

not been able to identify it, so I'm hoping you may be able to help.

Anne Constant Ewing Philadelphia, Pennsylvania

**Editor's response:** The only *Erythronium* species with deep pink flowers are western trout lily (*E. revolutum*) and some selections of European dog's-tooth violet (*E. dens-canis*). Because these plants cross freely and are quite variable, it's possible yours is a hybrid. Next year, please send us a photo showing the plant in bloom.

#### **RECOGNITION NEEDED FOR ALL**

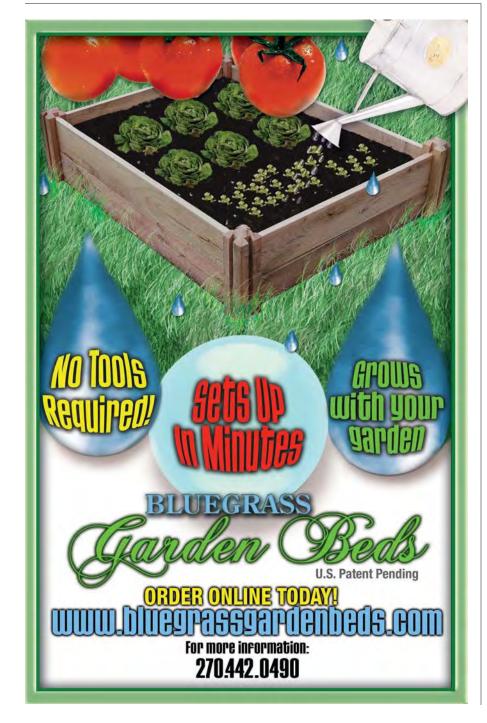
After reading "America in Bloom's 2005 Award Winners" in the November/December 2005 issue, I felt obliged to express disappointment. Your article listed only the first-prize winners in the America in Bloom contest, when 48 towns participated. Had you listed *all* those towns, if only in very small type, you would have gained new friends and rewarded the efforts of places with horticultural, historical, social, and environmental awareness.

I was on the committee for Olmsted Falls, Ohio. Our project included the post office (a federal property), two local cemeteries, our public library, and many houses and businesses of all sizes. The work at the west branch of the Rocky River reflected our appreciation of the natural attributes in this community. I have seldom seen a project that rallied volunteer support across so many categories of people.

Mary Joyce Lunn Berea, Ohio

Editor's response: The AHS has been a strong supporter and partner of the America in Bloom (AIB) program since its inception; we respect the hard work that the volunteers from all the participating communities put into their entries. But with 48 communities in last year's event, we simply don't have space to list all the entrants in the magazine. We encourage readers to visit the AIB website (www.america inbloom.org) for a complete list and to find out how to get their own communities involved in this worthy program.

**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.



tors remarked on the

exhibit's beauty and authenticity and ex-

pressed interest in the

innovative tools and

equipment on display,

including a rain bar-

rel, cones to convert

empty soda bottles

into an ingenious wa-

tering system, and an

updated version of a

string trimmer that

runs on a rechargeable

battery. These and

other labor-saving,

earth-friendly, and er-

gonomic examples of

garden gear were gen-

PROGRAMS • EVENTS • ANNOUNCEMENTS

# Green Garage® a Hit at Philadelphia Flower Show

THE AHS'S FIRST full-fledged exhibit at the Philadelphia Flower Show was an unqualified success. Not only did it win the Best in Show Award for educational exhibits by non-academic organizations, as well as the Special Achievement Award from the

Garden Club Federation of Pennsylvania, but it brought to life the philosophy and concept behind the AHS Green Garage® program.

"The exhibit was absolutely fabulous and communicated the AHS's message of great horticulture, environmentally responsible gardening, and fun as well or better than anything we have ever done," says AHS President **Katy** Moss Warner.

The AHS display

was designed to be both a visually pleasing exhibit and a learning station. The model "garage," filled with earth-friendly garden tools and products, was surrounded by a landscape planted with low-maintenance annuals, perennials, shrubs, herbs, and vegetables. "The exhibit showed people how they can apply the same ecologically sound principles to their own yards," says AHS Landscape Architect Ann English. For the design, Ann and AHS Horticulturist Peggy Bowers chose plants that shared similar cultural requirements and would bloom at roughly the same time—early to mid-summer—in a home garden. Many show visi-



The Green Garage exhibit at the Philadelphia Flower Show, above left, demonstrated that



beauty can coexist with sound environmental stewardship. Above right: AHS President Katy Moss Warner, right, discusses the benefits of greener gardening with flower show visitors.

erously donated by Gardener's Supply Company.

Homestead Gardens, an AHS corporate partner, also featured a Green Garage exhibit at the company's retail nursery in Davidsonville, Maryland, in March. Visitors to River Farm can view a permanent Green Garage exhibit. Information on the Green Garage concept is also available at www.ahs.org.

# Katy Moss Warner to Retire in June

AFTER SERVING AS president and chief executive officer of the American Horticultural Society (AHS) for four years, Katy Moss Warner has announced that she will retire effective June 3, 2006. "The AHS is a dynamic organization that is making vital contributions to the science and art of gardening in America," says Katy. "I am proud to have been actively involved with the AHS over the last 14 years, first as a board member and then as president."

Under Katy's guidance, the organization has increased its membership, developed many new educational programs and taken them to a national audience, and created a Master Plan for transforming its headquarters at George Washington's River Farm into a center for American horticulture. "Through her leadership, Katy has revitalized our organization and created significant alliances with green industry groups and horticultural professionals," says Arabella Dane, chair of the AHS Board of Directors. "Her passionate commitment to raising public awareness of the importance of plants and gardens is an inspiration to us all." At the request of the AHS board, Katy will continue to represent the AHS as president emeritus.

Prior to becoming president of the AHS, Katy was the director of horticulture and environmental initiatives at the Walt Disney World Resort in Florida, where she worked for 24 years. While at Disney, she joined the AHS Board of Directors in 1992. and served as Board chair from 1998 to 2000.

A national search for a new president is underway. Chief Operating Officer **Tom Underwood** will serve as the Society's acting CEO until a replacement for Katy is named.

# Fashion in Bloom This Fall

GARDENS MAY BE just hitting their stride for the season now, but those on the lookout for the newest, hottest plants for next year's gardens should mark their calendars for September. Fashion in Bloom—which was called the Eastern Performance Trials when it debuted last year—will introduce the landscape industry and home gardeners to new plants and tried-and-true varieties from leading national and international plant producers.

The event, coordinated by the **Garden Centers of America**, will once again be held at six locations in the mid-Atlantic region, including the AHS's River Farm headquarters. "The 2006 event will have an outstanding display of new flowers, vines, trees, foliage plants, and perennials," says **Clint Albin**, project manager for Fashion in Bloom.

While most of the event's participants will be green industry professionals and Master Gardeners, the public is invited to take a peek at the latest in plants at River Farm on Saturday September 23 from 9 a.m. to noon. This year's theme at River Farm is "America's Garden Celebration: Decorating Inside Out."

For more information about Fashion in Bloom, visit www.fashioninbloom.com.

# Gardeners Go Native at River Farm

GARDENERS FROM THE mid-Atlantic region and beyond gathered at River Farm in April for "Gardening with Native



Meadowlark Botanical Gardens Manager Keith Tomlinson addresses Garden School participants during a tour of the Potomac Valley Native Plant Collection in Vienna, Virginia.

Plants," the first of the AHS's three 2006 Garden Schools. Guest Horticulturist Carole Ottesen led a top-notch roster of speakers including nurseryman Kurt Bluemel, AHS Horticulturist Peggy Bowers, landscape consultant Rick Darke, horticultural researcher and educator Richard Bir, landscape architect Darrel Morrison, and Rick Lewandowski, director of the Mt. Cuba Center in Greenville, Delaware.





# **AHS NATIONAL EVENTS AND PROGRAMS** 2006 CALENDAR

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

- 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. 20–23. Fashion in Bloom (formerly called the Eastern Performance Trials). George Washington's River Farm. Alexandria, Virginia. (Open to AHS members and the public on Saturday, September 23 from 9 a.m. to noon.)
- 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.
- DEC. 14. Annual Friends of River Farm Holiday Reception. George Washington's River Farm, Alexandria, Virginia.

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

One of the stars of the sold-out event was River Farm's own meadow habitat. Peggy's presentation about the site preparation, installation, and management of the meadow showed participants just how far this ambitious project has come since it was initiated in 2003. But the program also brought in a wealth of expert advice from around the region, and included a field study trip to area gardens.

"I really enjoyed the intimacy of the class size and similarity of experience levels," says Cheryl Corson, a landscape architect from Upper Marlboro, Maryland, who attended the Garden School. "I met some great people and loved the accessibility of the speakers during breaks and meals."

The next AHS Garden School, "The Art & Science of Color in the Garden," will be held May 11 and 12 at the

# Garden Essay Contest Open

To celebrate the central role gardens play in family life, this summer the AHS is partnering with MIRA Books to sponsor an essay contest. The contest is inspired by the publication in May of Susannah's Garden, a novel by bestselling author Debbie Macomber. In Macomber's book, the family garden serves as a place of respite and a symbol of unity and renewal for three generations.



Readers are invited to write about how their own gardens have brought their families together. Submissions should be 100 words or less and will be judged on creativity, grammar, and style by representatives of the AHS and MIRA Books. The grand prize is a trip for four to Alexandria, Virginia, that will include guided tours of Mount Vernon Estate and Gardens, the family home of George Washington, and

the AHS's River Farm headquarters. The winning essay will be published in *The American Gardener* magazine.

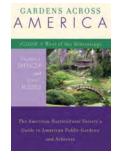
"Many of us have treasured memories of time spent with family members in our gardens," says David Ellis, AHS director of communications. "We are very pleased to offer people an opportunity to share their inspirational stories through this essay contest."

The deadline for submitting essay entries is July 31. For complete rules and regulations, and a list of other prizes, visit www.ahs.org and click on the link for "Susannah's Garden Essay Contest."

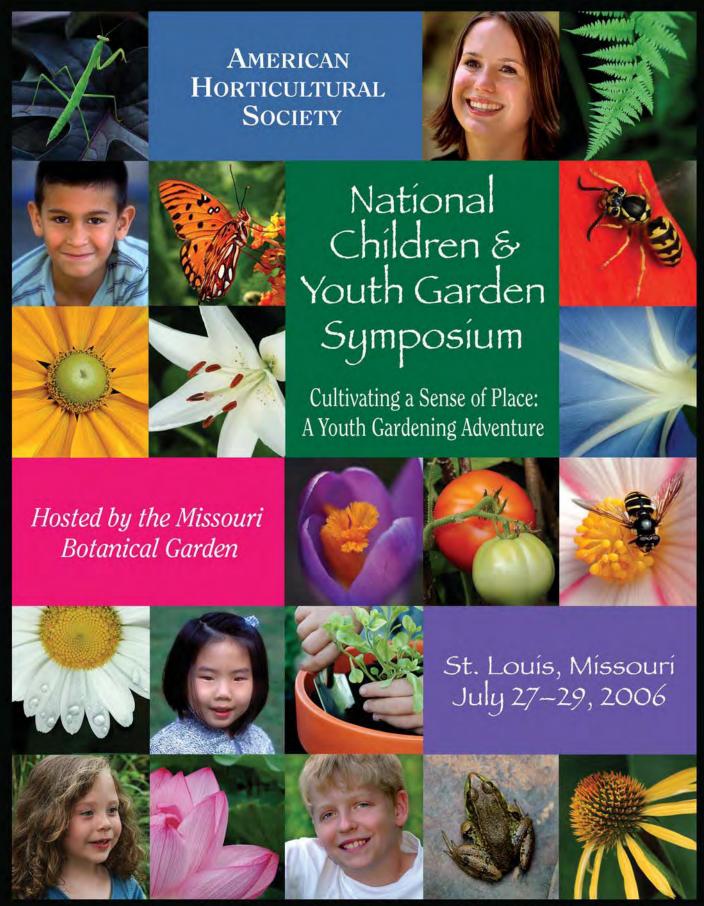
Franklin Park Conservatory in Columbus, Ohio. "The Art & Science of Garden Photography," the final Garden School of 2006, will take place October 26 and 27 at the Lady Bird Johnson Wildflower Center in Austin, Texas. For more information on Garden Schools and other AHS education programs, visit www.ahs.org or contact education@ahs.org.

# Western Edition of Public Gardens Book Now Available

THE AHS IS pleased to announce the release of the second of its two-volume series, Gardens Across America: Volume II— West of the Mississippi. With this book and its companion



volume for Eastern public gardens, published last August, garden lovers will now have user-friendly access to detailed information about more than 3,000 public gardens and arboreta throughout the United States. The book is organized alphabetically by state, and destinations are also indexed by type—such as Japanese gardens or children's gardens—to help enthusiasts plan their travels and excursions.



For more information, visit www.ahs.org or call the AHS at 703.768.5700 x 132.

Both guides were compiled by **John J. Russell** and **Thomas S. Spencer**. Published by Taylor Trade Publishing, the softcover book will retail for \$19.95, but AHS members are eligible for a special discount. Both volumes of the book can be ordered through the AHS website (www.ahs.org).

# AHS Welcomes Lady Walton

OVER the years, dozens of participants in AHS Travel Study programs have visited La Mortella, the beautiful and eclectic garden of **Lady Susana Walton** and her late husband, the British com-

poser **Sir William Walton**, on the Italian island of Ischia in the Bay of Naples. So it was a treat for the AHS to welcome Lady Walton to Washington in early April.

Lady Walton's visit to the nation's capital combined her passions for gardening and classical music. She participated in several programs, including visits to Tudor Place and the



AHS President Katy Moss Warner, left, presents Lady Walton with a framed photograph of flowers at La Mortella at a reception at the U.S. Botanic Garden.

# AHS Gala Set for September 23

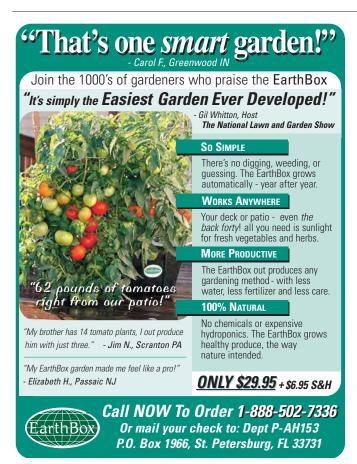
On Saturday, September 23, 2006, the AHS will hold its annual fundraising gala, "America's Garden Celebration," at its headquarters at George Washington's River Farm in Alexandria, Virginia. As a special treat, Gala guests will have the chance to preview the best new plants for spring 2007 as the AHS hosts the Garden Centers of America's "Fashion in Bloom" event.

For additional information on the 2006 Annual Gala, call (800) 777-7931 ext. 114 or e-mail tgibson@ahs.org.

U.S. Botanic Garden (USBG), in Washington, D.C., and a performance of her husband's greatest choral work, *Belshazzar's Feast*, at the Kennedy Center.

During the reception at the USBG, AHS President Katy Moss Warner presented Lady Walton with a framed image of a *Geranium maderense* that AHS Board Chair Arabella Dane had photographed during a Travel Study Program tour of La Mortella. "Lady Walton knows better than almost anyone the strong connection between the fine arts and the art of gardening," says Katy. "What fun it was to hear her fascinating—and often hilarious—stories about making and living in this beautiful garden."

News written by Editorial Intern Linda McIntyre.









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# AHS NEWS SPECIAL

# 2006 AHS NATIONAL CHILDREN & YOUTH GARDEN SYMPOSIUM

# New Children's Garden at Missouri Botanical Garden

by Linda McIntyre



THE MISSOURI BOTANICAL GARDEN (MBG) in St. Louis is renowned internationally for its botanical and plant conservation research programs, but its leadership is also committed to keeping the garden accessible to both adult visitors and the next generation of horticultural enthusiasts. Promoting appreciation of the environment, history, and outdoor life will be especially easy and fun now that the Doris I. Schnuck Children's Garden: A Missouri Adventure has opened at MBG.

The Children's Garden, made possible by a donation from the children of the **Donald Schnuck** family in honor of their mother, brings 19th-century Missouri history and botany to life on nearly two acres designed for hands-on exploration and learning. Its central themes of discovery, adventure, botany, and settlement are played out along four paths, each providing a unique garden journey in a landscape that highlights all of the ecosystems native to the state, from swamp to prairie.

The garden was designed for particular appeal to children ages two to 12, with

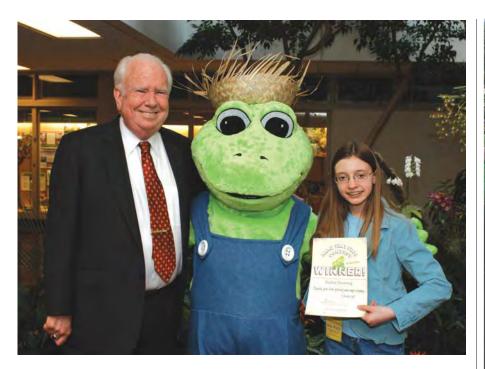
an emphasis on ages four to 10. But all generations are enjoying the new garden as they explore it together.

"The exhibits really encourage intergenerational interaction," says **Katie Belisle-Iffrig**, manager of the Children's Garden. "They use a lot of props and ar-

The Missouri Botanical Garden's new children's garden will be a featured tour this summer during the AHS National Children & Youth Garden Symposium.

tifacts donated by the community that promote a sense of belonging and trigger memories that older visitors share with younger ones. Even younger adults, in their 30s, have found themselves reminiscing about their own childhoods."

Plants, almost all of them Missouri natives, are central to each of the garden pathways. Visiting kids can wander along a boardwalk through a canopy of Osage orange trees (Maclura pomifera) planted over 100 years ago by MBG founder Henry Shaw. The adjacent Botanist's Path also features a Secret Garden and a Polli-



Opposite: Visitors play on the grounded steamboat along the Adventurer's Path. Above: MBG President Peter Raven with Rachel Downing, winner of the mascot-naming contest, and Children's Garden mascot, Finn. Right: Children cross one of the garden's two rope bridges on the Discoverer's Path.

nation Garden with colorful flowers that attract birds, bees, and butterflies. Smooth hydrangeas (*Hydrangea arborescens*) light up the Woodland Garden at the edge of the Adventurer's Path. Soft rush (*Juncus effusus*) grows along the Settler's Path, a country road with a covered bridge, a farm wagon, and climbing rock. A variety of native wetland plants grow in the pond viewed from the Discoverer's Path.

Invasive plants such as purple loosestrife (*Lythrum salicaria*) and kudzu (*Pueraria montana* var. *lobata*) grow under lock and key in a plant "jail."

Outside the jail, endangered Missouri natives grow in a family plot, identified by headstones. Among these are the eastern fringed prairie orchid (*Platanthera leucophaea*), and running buffalo clover (*Trifolium stoloniferum*).

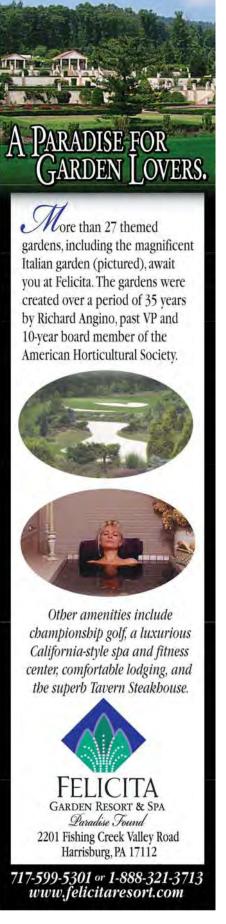
The Children's Garden will provide an engaging and thought-provoking backdrop for the 2006 AHS National Children & Youth Garden Symposium, "Cultivating a Sense of Place: A Youth Gardening Adventure," which will be hosted by MBG July 27 to 29. After an



opening address by MBG President Peter Raven, this year's event will feature keynote presentations by Richard Louv, author of Last Child in the Woods: Saving our Children from Nature Deficit Disorder, and Caroline Lewis, director of education at the Fairchild Tropical Botanical Garden in Coral Gables, Florida. Norm **Lownds** of Michigan State University, chairman of the AHS's National Children & Youth Garden Symposium Advisory Panel, will moderate a discussion of Louv's book. Participants will also choose from a roster of education sessions and enjoy special exhibits at MBG and a visit to the Shaw Nature Reserve.

For more information about the symposium and to register to attend, visit the AHS website (www.ahs.org) or e-mail youthprograms@ahs.org.

Linda McIntyre is editorial intern for The American Gardener.



# climbing and rambling

# Roses

Here are 10 beguiling climbing and rambling roses ideal for creating romantic vignettes in your garden.

BY JEFF COX

LIMBING AND rambling roses are wondrously useful in the garden, tumbling from trees or adorning pillars and posts, arbors, and archways with beautiful and often lusciously fragrant flowers.

The 10 climbing and rambling roses profiled here are the cream of the crop, based on my own experience as well as recommendations from expert rose growers around the country. Most are hardy and disease resistant, and all have a basket full of good qualities that makes them stars in the garden. Several other climbers worthy of consideration, including some very recent introductions, are listed in the chart on page 21.

The terms "climber" and "rambler" are sometimes used interchangeably, but most climbers rebloom to some degree over the growing season and grow to a height of about eight to 15 feet on sturdy stems. Rambling roses, on the other hand, tend to bloom once in late spring or summer. They can literally cover buildings and their stems are often more flexible than those of climbers. In his book, Climbing Roses of the World (see "Resources," page 20), rose expert Charles Quest-Ritson says "ramblers have a greater admixture of wild roses in their more immediate ancestry...whereas climbing roses are more closely related to such complex hybrids as the Hybrid Teas and Floribundas."

Not all roses suited for climbing are billed as such. For example, some English or modern shrub roses, such as Golden Celebration, discussed on page 19, can be trained as climbers. And, according to Steve Jones, vice president of the American Rose Society, hybrid musk roses make good climbers in hot, sunny regions where they tend to put on extra height.



## 'ADÉLAÏDE D'ORLÉANS'

(USDA Hardiness Zones 5–10, AHS Heat Zones 10–5)

Antoine Jacques, a French horticulturist who worked for the Duc d'Orléans in the early 19th century, bred this graciously proportioned rambler from *Rosa sempervirens* stock in 1826. Its lax form allows for a cascade of exquisite flowers blooming along leafy canes that hang down

gracefully from trees, arches, pergolas, trellises, and walls. The roses themselves begin as small, rosy-pink buds before opening as soft, pale white, semi-double blossoms, resembling those of crabapples, with pleasingly crinkled petals and a delicate rose scent.

The vigor and health of the parent species make 'Adélaïde d'Orléans' easy to grow, and though it's a once-blooming rose, that bloom is eagerly anticipated each summer by its aficionados. Unlike many roses, its foliage is nicely shaped and pretty. The grace of form is due to its slender canes, which bear reddish thorns. It's deciduous in the colder parts of its growing region but evergreen in warmer areas.

# 'MLLE. CÉCILE BRUNNER' (Climbing) (Zones 5–9, 9–1)

The climbing sport of the "sweetheart rose," as 'Mlle. Cécile Brunner' is also known, is so vigorous it acts like a rambler, scampering to 25 feet up into trees and burying small outbuildings under bushels of tiny, pointed pink buds and puffy little pink, fragrant, and fully-blown double roses. The foliage tends to be sparse along its green, almost thornless stems. Planted in a warm, sunny spot, it will produce two main flushes of bloom in early summer and then flower sporadically into fall.

Climbing 'Mlle. Cécile Brunner' dates back to 1894 and its parentage is murky. Many rosarians classify it as a type of multiflora rose, but English rose breeder Peter Beales places it in the China rose camp. No matter what its heritage, it's an ideal choice for a large spot and has a long-lived nature that will carry it down a generation of gardeners or two.

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

Introduced in 1968, the climbing sport has all of the qualities of the shrub, a floribunda rose, with the added ability to extend its nearly thornless stems to 18 feet, making it perfect for adorning a pillar, post, arbor, archway, trellis, or pergola. Its pure white, semi-double flowers, which appear in large clusters, give a cooling effect in the garden on hot summer days. It blooms prodigiously from late spring to fall. Rain doesn't ruin its blooms, and the plant is sturdy and rea-









sonably disease resistant except in regions with humid summers.

#### **'DUBLIN BAY'** (Zone 5–9, 9–5)

Despite what you may read in some rose books, 'Dublin Bay' is not fragrant, but other than that it has no drawbacks to speak of. A cross between 'Altissimo'— a large-flowered modern climber bearing single, deep crimson flowers—and pink-flowered 'Bantry Bay', it was introduced in 1975.

Chief among the good qualities of 'Dublin Bay' is its resistance to black spot and mildew, which means it seldom if ever needs spraying. And adding to those qualities is its determination to bloom again and again over the year. Given enough sun, good soil, and adequate water, it produces flowers singly and in clusters from June to October. My 'Dublin Bay', which I grow in a pot on my deck in northern California, produced the last rose of 2005 in January of 2006, helping me welcome in the new year.

The canes are pliable and easily trained, and the young ones are not very thorny. They grow up to 10 feet in sunny spots, and however you train them, they pro-

duce enough side shoots to display themselves and their flowers to advantage. The foliage is a glossy dark green—just right to set off the bright red roses.

'Dublin Bay' is the best choice for a red-flowered climber, but if you absolutely must have good fragrance in a deep red, double, climbing rose, I suggest trying 'Don Juan' (see chart, page 21).

# **'FOURTH OF JULY'** (Zones 5–9, 9–1)

The story behind the birth of the marvelous climber 'Fourth of July' begins with two choice roses: 'Altissimo'—one of the parents of 'Dublin Bay'—and 'Roller Coaster', a miniature with crimson semi-double roses streaked with white and creamy yellow in sunburst patterns. In the 1990s, Tom Carruth, the head hybridizer at Weeks Roses, crossed the two and—kaboom!—the result was 'Fourth of July', a rose so gorgeous that it won the All-America Rose Selection when introduced in 1999—the first such award for a climber in 23 years.

"'Fourth of July', in my opinion, is the best garden rose introduced in the last decade, and it's an eye catcher in every section of the United States," says John Mattia, an All-America Rose Selections judge. Its very floriferous canes reach 12 to 15 feet, blooming repeatedly during the growing season.

Its sweetly apple-scented roses open in closely-packed clusters of velvety-red bicolor petals, streaked with radiating bursts of white stripes. Each four-and-a-half-inch flower is centered with a clutch of golden stamens that add to the firework effect. The deep green foliage is moderately resistant to fungal diseases.

**'FRANCIS E. LESTER'** (Zones 4–9, 9–4) Versatility is the great horticultural ad-



vantage of this superb rambler, introduced in 1946, whose thorny canes grow to 15 to 20 feet. These are ideal for positioning along fences or semi-horizontally on trellising, where sunlight will call forth massive panicles of up to 60 whitebrushed-with-pink, single blooms. The individual blossoms are about two inches across, and the panicles resemble big clusters of apple blossoms. A strong musky (some rosarians say fruity) fragrance is another asset.

'Francis E. Lester' is a hardy, disease resistant, vigorous grower. Its only downside is that it is generally a once-blooming rose. But the floral show it puts on in late spring to early summer is worth the wait. The display value is heightened if it's grown up into trees, allowing its pliable shoots to arch and dangle downward in cascades of bloom. Big sprays of large, attractive orange hips adorn the rambling canes right through the winter.

## **GOLDEN CELEBRATION**

(Zones 5-9, 9-5)

English rose breeder David Austin introduced Golden Celebration ('Ausgold') in 1993, and in the United Kingdom it is generally treated as a modern shrub rose and



grown in mixed borders. But in regions of the United States where summers are warmer and sunlight is stronger than in Britain, it also performs nicely as a climber that can reach 10 feet and is an excellent choice for the smaller garden. The rich golden color of the flowers reaches out for the eye, so it's a perfect choice when looking for a plant to anchor a focal point, par-

# MAINTAINING CLIMBERS AND RAMBLERS IN THE GARDEN

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

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

The flexible canes of most ramblers bend over the top of an arbor and hang down, making their blooms more visible from below. Their laterals are also more lax. Because hardly any ramblers are rebloomers, however, you'll have to admire them for their single yearly show. For a longer period of bloom, plant a climbing rose on the opposite side of an arbor from a rambler.

Climbing and rambling roses don't climb using tendrils or hooks, so you have to tie them in place. Avoid using wire, because it can cut into the canes as they move with the wind. Instead, use green plastic tying ribbon, twine, or strips of cloth. If you don't want attachments to be visible, place eye hooks here and there at the top of the arbor posts, then hang loops of fishing line that reach varying distances down the posts. As the roses grow, attach them to the loops with the ties.

General Care. As with all roses, climbers and ramblers will grow best in a loamy, free-draining soil with a pH that is slightly acidic (6 to 7). Although a couple of the roses profiled will tolerate some shade, all grow best in full sun (at least eight hours a day).

Roses are heavy feeders, so apply a balanced slow release or organic fertilizer containing micronutrients in early spring. Supplement with "teas" made of well-rotted manure, compost, and fish emulsions regularly during the growing season. Apply a layer of organic mulch around roses to conserve soil moisture and suppress weeds.

Reblooming varieties flower on new wood and should be pruned back hard when dormant to stimulate new floriferous growth. Once-blooming roses like ramblers should be pruned immediately after bloom ends so new wood has time to grow and harden over the rest of the growing season. Next year's bloom will appear from this growth, so don't prune a once-bloomer when dormant or you'll remove the buds that will produce flowers. —J.C.

ticularly because its blooms repeat from early summer into fall.

But that's just the beginning of this rose's charms. Walk up close to this climber and take note of the intricate way in which the flowers are formed. From yellow buds with a reddish blush, fully double flowers open with several rings of petals extending out to create a flat background for an inner circle of small, creased petals that form a cup. When fully open, its roses are among the most beautifully formed of any you'll see. Then bring your nose to a blossom and

enjoy its strong, delicious scent.

Golden Celebration is moderately disease resistant but may show signs of black spot in regions with humid summers.

# **'NEW DAWN'** (Zones 5–9, 9–5)

No list of superb climbers would be complete without 'New Dawn'. Introduced in 1903, it has stood the test of time. The World Federation of Rose Societies named it the "World's Favorite Rose" in 1997 and elected it to the World Rose Hall of Fame. All of this with good reason. I planted a specimen by my garden

# Resources

American Rose Society, P.O. Box 30,000, Shreveport, LA 71103. (318) 938-5402. www.ars.org.

Climbing Roses of the World by Charles Quest-Ritson, Timber Press, Portland, Oregon, 2003.

The Encyclopedia of Roses by Judith C. McKeon, Rodale Press, Emmaus, Pennsylvania, 1995.

Taylor's Guide to Roses by Nancy J. Ondra, Houghton Mifflin, Boston, Massachusetts, 2001.

# Sources

The Antique Rose Emporium, Brenham, TX. (800) 441-0002. www.antiqueroseemporium.com. Catalog free.

David Austin Roses Limited. Tyler. TX. (903) 526-1800. www.david austinroses.com. Catalog free.

Heirloom Roses, Inc., St. Paul, OR. (503) 538-1576. www.heirloom roses.com. Catalog free.

High Country Roses, Jensen, UT. (800) 552-2082. www.high countryroses.com. Catalog free.

Hortico Nurseries Inc., Waterdown, Ontario, Canada, (905) 689-6984. www.hortico.com. Catalog \$3.

Roses of Yesterday and Today, Watsonville, CA. (831) 728-1901. www.rosesofyesterday.com. Catalog \$5.

Wayside Gardens, Hodges, SC. (800) 213-0379. www.wayside gardens.com. Catalog free.



fence and within two years it had filled an area of the fence 20 feet wide and seven feet high.

Some flowers are produced in small clusters and some as single roses atop short stems that grow from pliable canes, allowing the gardener to tie it out at any angle from horizontal to vertical, or even peg it English-style. It repeat blooms profusely and benefits from some thinning and deadheading during the season from June to October. The roses are double, soft shell pink, and lightly fragrant, with a scent some growers describe as sweet and others as slightly fruity.

The foliage is glossy dark green and disease resistant, a real plus in hot, humid

Eastern climates where roses are also known as "black spot on a stick." Its hardiness makes it exceptionally useful in the northern tier of states but it also performs beautifully in warmer regions.

#### 'PAUL'S HIMALAYAN MUSK'

(Zone 5-9, 9-6)

Introduced in 1916, this is a true rambling rose, but one that's oddly named because it doesn't look much like the true Himalayan musk rose (R. moschata var. nepalensis)—although it's probably related in some way. Like most rambling roses, it's a once-bloomer-in July through most of its hardiness zone range, but in June in USDA Zone 9.

> This is a rose that will cover a good 40 feet of fence if its 20-foot canes are trained left and right from where it's planted. If you're looking for a rose to grow up in a tree so that its long, graceful, floriferous stems tumble downward, 'Paul's Himalayan Musk' is a great candidate. Not only does it produce lax stems that cascade, but its flower clusters droop, shining their faces down upon whomever is looking up at them. The small, slightly musk-scented, double roses are pale silvery lilac-pink.



# **MORE CLIMBERS TO COVET**

| Name<br>(Breeder, year)                          | Type of rose           | Height<br>(feet) | Flowers                                | Other remarks  | USDA Zones,<br>AHS Zones |
|--|------------------------|------------------|--|--|--------------------------|
| 'Don Juan'<br>(Jackson & Perkins, 1958)          | Large-flowered climber | 8–12             | large, deep burgundy red               | sweetly fragrant                                     | 5–9, 9–1                 |
| 'Mme. Alfred Carrière'<br>(Schwartz, 1879)       | Noisette               | 12–18            | large, double creamy white tinged pink | very fragrant<br>tolerates part shade                | 5–9, 9–5                 |
| Polka ('Meitosier')<br>(Meilland, 1991)          | Romantica              | 8–10             | dark apricot fading as mature          | fragrant and long blooming                           | 5–9, 9–5                 |
| 'Sombreuil'<br>(Robert, 1850)                    | Climbing tea           | 9–12             | large, creamy white with tinge of pink | strongly fragrant                                    | 4–9, 9–3                 |
| St. Swithin ('Auswith')<br>(David Austin, 1993)  | English                | 6–8              | double soft pink<br>full flowers       | strong myrrh fragrance                               | 5–9, 9–1                 |
| White Eden™ ('Meiviolinsar')<br>(Meilland, 2006) | Romantica              | 10–12            | white tinged pink                      | lightly fragrant                                     | 5–9, 9–5                 |
| 'William Baffin'<br>(Svejda, 1983)               | Shrub                  | 8–12             | double, pink with white markings       | very hardy and disease-resistant                     | 3–9, 9–1                 |
| 'Zéphirine Drouhin'<br>(Bizot, 1868)             | Bourbon                | 8–12             | rosy pink, fragrant                    | tolerates part shade, thorn less, crimson new leaves | - 5–9, 9–5               |



ROSA BANKSIAE (Zones 8–10, 10–8)

Derived from a wild rose discovered in China, the "Lady Banks" rose, as it's commonly known, has been grown in Western gardens since the late 18th century. Of the three selections of this rambler in cultivation, the hardiest and most popular is a double-flowered yellow variety (*R. banksiae* var. *lutea*, syn. *R. banksiae* 'Lutea').

In warmer regions, this variety is a familiar and welcome sight in mid-spring

when it bursts into golden bloom. The sight can be awe-inspiring, because this vigorous, thornless rose grows to 30 feet or more. It makes a huge mound of bright, pale gold, small, double flowers that literally smother the pretty, five-leaved foliage and slender, arching stems while in bloom.

I have seen it planted along several miles of highway, making the drive seem like tunneling through a happy corridor of Planted in 2000, the yellow-flowered variety of Lady Banks rose has now colonized 20 feet of a wall at the American Horticultural Society's River Farm headquarters. "It's a fabulous rose if you have the space for it," says AHS Horticulturist Peggy Bowers. "In my experience, it has proven resistant to fungal diseases both in Charleston, South Carolina and here in Virginia."

golden sunshine. Out of bloom, it's a massive mound of tall, impenetrable, bushy greenery resistant to diseases. That makes it good for covering banks, slopes, and eyesores, as well as edging property.

Some say that the yel-

low variety is fragrant, but my specimen has no scent that I can discern. Steve Jones concurs, but says the flowers of the white variety (R. banksiae var. banksiae) are strongly violet-scented. According to Jones, the world's largest rose is a white Lady Banks in Tombstone, Arizona, that is "as big as a football field."

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

# Inspired Garden Art

Beyond embellishment, garden art expresses the individuality and soul of the gardener.

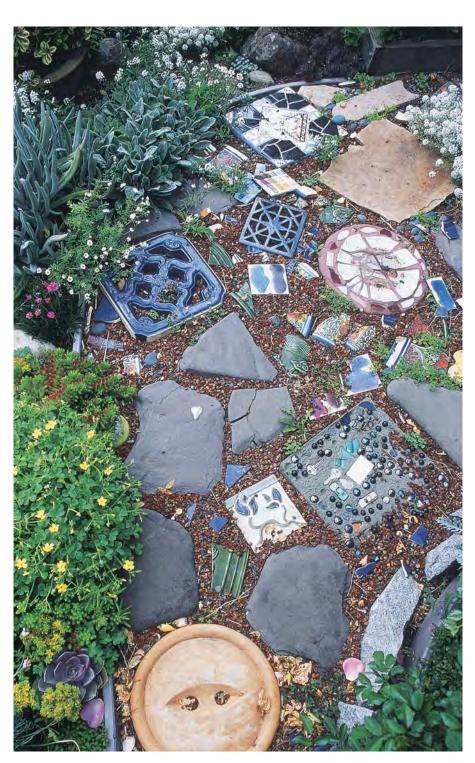
BY LINDA MCINTYRE

REATING A garden is itself an art form, but a garden can also serve as a backdrop to other kinds of art—fine art, found objects, or works that spring to life from your own imagination. Garden art is not just for museums or wealthy, landed collectors, and it need not be displayed in a formal setting of lawn and topiaries. Any garden is enhanced by ornament, and ornament that you've made, or that triggers a story in your mind every time you look at it, is the best kind.

A single sculpture in a home garden makes a stunning focal point that can unify and complete a design. But when I visit gardens on tours and open days, my favorites are always the ones that have the air of the handmade about them. Maybe it's a still life composed in a quiet, shady corner, or hand-hewn plant supports, or an eccentric collection of estate sale finds proudly displayed.

In any case, the art should reflect you and your sense of style, sense of humor, and sense of place. It's easy to have a professional sketch, plan, and install a beautifully-designed garden. Infusing your garden with soul is more difficult—it takes time, reflection, and confidence. Here are some *objets* and other ideas to inspire you.

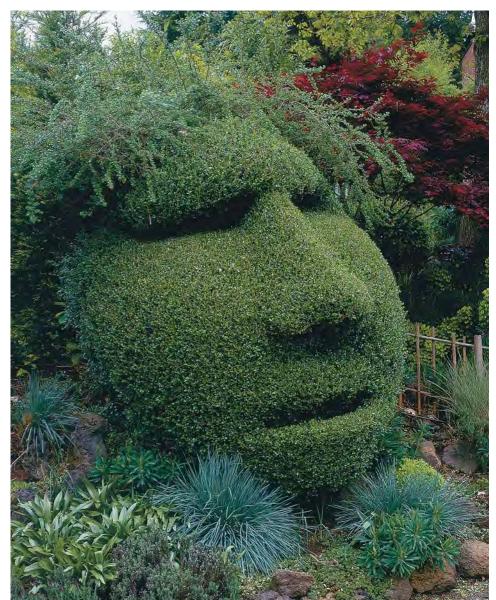
Linda McIntyre is an editorial intern for The American Gardener who is in the process of transforming her small Washington, D.C., garden into a work of art.



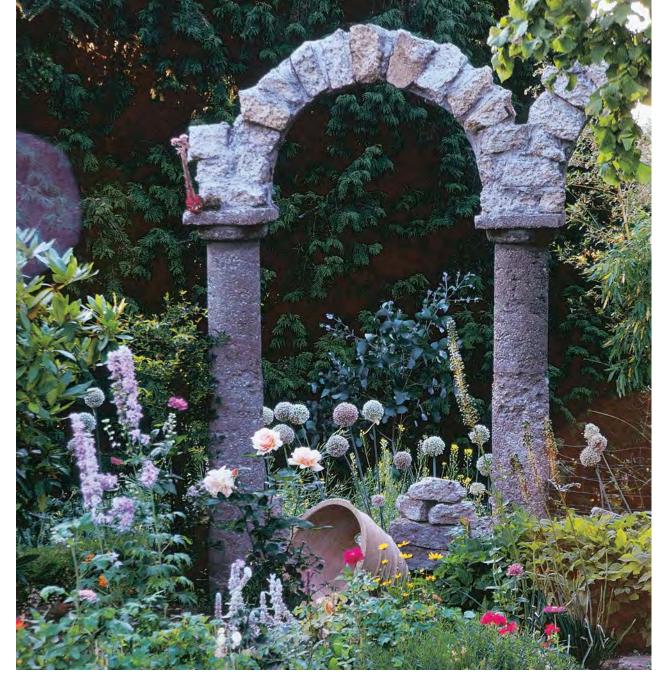
This inlaid garden path, viewed from the sidewalk in Berkeley, California, uses a variety of materials to make a strong visual statement. Broken crockery, tiles, painted metal grillwork, and handmade stepping stones in a bed of gravel work together, setting off a collection of low-growing plants with intriguing shapes and inviting visitors to take a closer look.



The garden of Pacific Northwest designers George Little and David Lewis is famous for its artistic sensibility. This painting of lilies, rendered on lightweight concrete, hangs on an ivy-covered fence in a quiet corner of their garden on Bainbridge Island in Washington State. The interplay between the flowers in the painting, and the purple irises nearby, gives a feeling of depth in a small space.



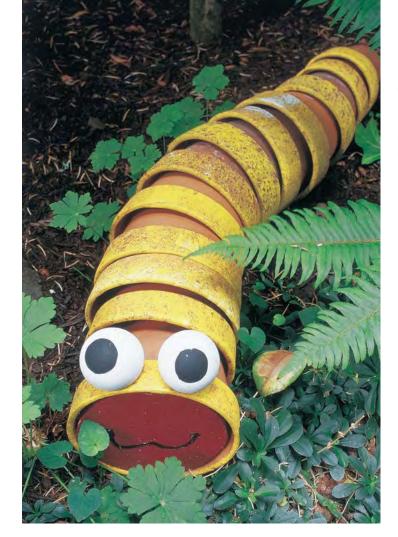
A "green man" plaque is a popular garden accent, but this topiary in the former garden of Ron Wagner and Nani Waddoups in Portland, Oregon, brings the concept to vivid life with a design that's anything but traditional or formal. The 10-foot-high horticultural sculpture was created by Wagner, an artist, from a large Escallonia—an evergreen shrub native to South America. It has become a neighborhood mascot of sorts, occasionally "decorated" with flowers behind his ear or blinking red light "eyes" for Halloween.

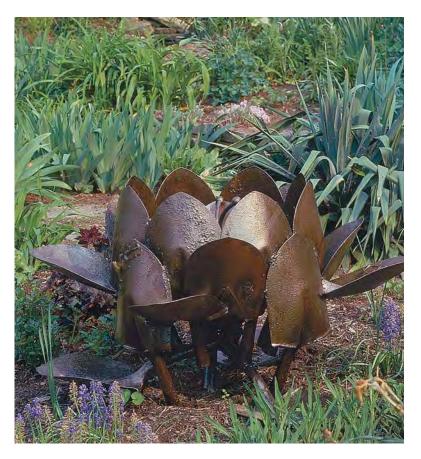


Above: These "ruins" were designed and built by a Portland, Oregon, homeowner inspired by a visit to a botanical garden in Venezuela. He built them out of broken concrete over a twoyear period, spending only about \$60. The piece lends itself well to the Mediterranean feel of the garden, which also features two ponds and a rock garden as well as a 100-footlong wall made of the same material as the arch.

Right: Landscape designer and artist Lindsay Lee, who also owns Willowglen Perennial Nursery in Decorah, Iowa, built this limestone cairn. Inspired by the work of environmental artist Andy Goldsworthy, Lee dry-laid the limestone, which is a vernacular material in northeast lowa. The effect is classical and exotic, natural and ornamental, at the same time.







Left: This charming caterpillar, made of partially nested terra cotta pots, was created by Jeanette Daletas and is right at home in her whimsical garden in Portland, Oregon, which is regularly enjoyed by her friends and family, including her grandchildren. The garden also features a tree house, a water garden in a wheelbarrow, a picnic table with place settings arranged around potted plants, and a model train that runs throughout.

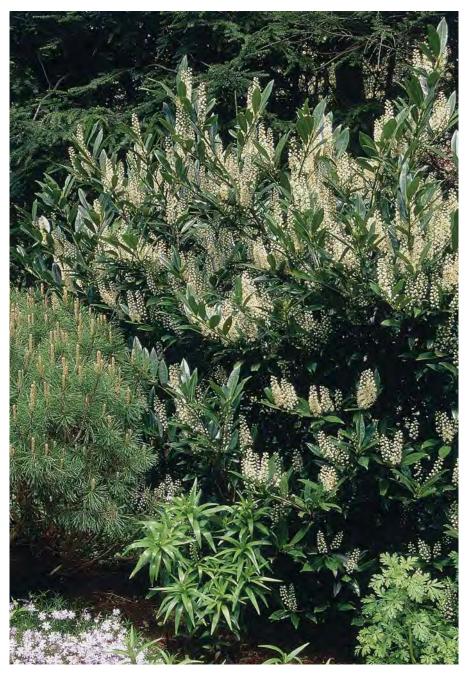


Above: An old log has found new life in the Bellingham, Washington, garden of Jack and Judy Boxx in the form of a stylized sculpture of a family of owls. Together with a host of colorful annuals and perennials, the sculpture lightens the mood of this woodland garden.

Left: A lotus flower is a common sight in a garden pond, but this "flower," made of shovel heads and other recycled tools, is a clever companion to a pond and waterfall in the garden of Robert and Judith Stitzel in Morgantown, West Virginia. It was created by Mark Blumenstein, a sculptor who specializes in bringing new life to old metal. The lotus flower is a focal point in this art-filled garden and reflects the gardeners' interest in handmade local pieces.

# broadleafed and brilliant Evergreen Shrubs

For maximum versatility in landscaping gardens both large and small, these mid-size evergreens are tough to beat. BY CAROL BISHOP MILLER



ROADLEAF evergreen shrubs in the five- to 12-foot range serve a multitude of functions in both large and small gardens. Beyond framing the foundation of your house, they make ideal boundary-defining hedges, backdrops for seasonal floral displays, and year-round screens—either for privacy or to block unwelcome views. They can be effective alone in masses or integrated into mixed borders, and many make fetching specimens.

In addition to their attractive yearround foliage, several of these shrubs display seasonally attractive flowers and fruit. A number of mid-size evergreens grace my garden in Huntsville, Alabama. The following are some of my favorites as well as recommendations from plant experts for other regions of the country.

#### **BLOOMING LARGE**

One of the most versatile evergreen shrubs for the American Southeast is Chinese fringe flower (Loropetalum chinense, USDA Hardiness Zones 7-9, AHS Heat Zones 9–7). From a distance, a specimen in full bloom may be mistaken for an azalea, but at close range the flowers, with their thin, twisted, white or hot pink petals, peg it as a member of the witchhazel family (Hamamelidaceae). Although the green-leaved, white-flowering species was introduced to western cultivation from China in 1880, it was the appearance of forms sporting rosy-hued leaves and hot pink flowers about 15 years ago that rocketed this species to stardom.

The fragrant spring flowers of Prunus laurocerasus are followed by red cherrylike fruit.

A bewildering number of selections have pelted the market. One that stands out in the crowd, however, is L. chinense var. rubrum 'Zhuzhou Fuchsia', a vigorous grower to 10 feet or more with a distinctive upright habit. Its dark maroon leaves contrast stunningly with the neon pink flowers that, like other loropetalums, grace the plant profusely in spring and sporadically thereafter. 'Hine's Purple Leaf' (also sold as Plum Delight), a less-vigorous selection with similar coloration, is a good choice for smaller gardens.

For the past eight years, I have babied a standard of the cultivar 'Sizzlin' Pink'. At first, this flamboyant lollipop grew in a pot, and I brought it into the garage whenever the thermometer threatened to

plunge below 20 degrees Fahrenheit. Then I planted it in the ground and have gradually trusted it to colder weather; now I cover it or wrap the precious single trunk only when temperatures are expected to dip below 10 degrees. In April, it is topped with a mop of frizzy fuchsia flowers. It grows fast, requiring several haircuts a year, and continues to bloom in light flushes into December. Without constraint, it would grow six feet high and at least as wide, with gracefully layered branches. New leaves are flushed reddish



The spidery blooms of *Illicium floridanum* 'Halley's Comet' appear from late spring to fall.

purple, then mature to medium green.

"The biggest problem with loropetalums is that they grow bigger than people think they will," observes Harvey Cotten, chief operating officer of the Huntsville Botanical Garden and past president of the Alabama Nursery and Landscape Association. Loropetalums take well to pruning, and Cotten likes them pruned into tree form to reveal their attractive flaking bark. Compact selections, however, require only occasional light pruning to maintain fullness and fit tidily into most border or foundation plantings.

Though drought-tolerant once established, loropetalums grow best in moist, well-drained, acid soil with a high organic content. They are content in either sun or shade, but flowering and leaf color are stronger in sun.

Despite their common name, anise trees (*Illicium* spp.) serve southeastern gardeners as large shrubs rather than trees. On the Huntsville Botanical Garden's nature trail, which runs through low woods along a creek, Florida anise tree (*Illicium floridanum*, Zones 7–9, 9–4) provides dense cover for wildlife and screening from the rest

of the garden. Rare in the wild, the species is native to the Gulf Coastal Plain from Louisiana to the Florida Panhandle. It favors moist to wet organic soil and shade and can reach 10 feet or more with a nearly equal spread. In a dry site, the sleek, leathery, two- to six-inch leaves droop; in sun they bleach out.

The plant exudes a fragrance that has been described as a mixture of turpentine and spice. I enjoy the scent, but I'm told that deer don't. Dark red, spidery flowers appear in April and May. The selection 'Halley's Comet' blooms into fall. 'Alba' and 'Semmes' are white-flowered selections. There are several pink-flowered and variegated forms in the trade, including 'Shady Lady' with pale pink flowers and leaves irregularly edged in white. When cross-pollination between different seed lines occurs, flowers are followed by single-seeded pods clasped together into woody pinwheels.

Woody plant expert Michael Dirr considers *Illicium henryi* (Zones 7–9, 9–2) the aristocrat of *Illicium* species. A Georgia Gold Medal Winner, this Chinese shrub produces glossy, thick, dark green leaves and develops a pyramidal profile, topping out at eight feet or more. The small pink to crimson spring flowers resemble small magnolia blossoms. The plant thrives in heavy shade but tolerates sun if provided ample moisture. (For more illiciums and other selections, see chart, page 29.)



With its burgundy leaves and hot pink, late-spring and early-summer blooms, *Loropetalum chinense* var. *rubrum* 'Hine's Purple Leaf' provides a bold accent in a mixed border.





Some evergreen viburnums look so hangdog in winter I wish they'd go on and drop their depressingly droopy leaves, but there are exceptions. The slick, slightly crinkled leaves of laurustinus (Viburnum tinus, Zones 8–10, 10–8) look daisy-fresh year round. Depending on the climate, this dense, dark, six- to 12-foot shrub blooms from fall through early spring, the winered stems are tipped with cymes of rosy buds that unfurl to waxy, white, vaguely fragrant flowers. Metallic blue fruit that matures to blue-black follows. As with most viburnums, fruiting is best when several plants of different seed lines are grown, allowing for better cross pollination.

Laurustinus makes an effective screen in either sun or shade and is tolerant of salt spray. Withhold fertilizer and don't prune in fall so new growth hardens off. The cultivar 'Spring Bouquet' reaches only four to six feet tall, and, fronted by a wave of rosy-flowered hellebores, makes a heavenly springlike vision in late winter.

A U.S. National Arboretum introduction, Viburnum ×burkwoodii 'Conoy' (Zones 5–8, 8–1), is distinguished by its compact, rounded profile to five by eight feet and small, ultra-glossy, dark green leaves that sparkle in the sun. It is reliably evergreen only in USDA Zones 7 and 8;



Left: With its springtime flowers and compact, rounded habit, Viburnum×burkwoodii 'Conoy' fulfills a wide variety of roles in the landscape. Above: The dense and compact Osmanthus heterophyllus 'Goshiki' makes a colorful barrier hedge or foundation shrub.

in colder climates it is deciduous. While it makes an eye-catching hedge, it has the oomph to stand alone as a specimen. Spring's creamy flowers are replaced in late summer by cymes of dangling red fruits that turn black in fall.

For gardeners in the Pacific Northwest, Dan Hinkley of Heronswood Nursery, suggests Viburnum cylindricum (Zones



Native to eastern North America, *Ilex glabra* is a good choice for naturalistic gardens.

6–8, 7–1). Hinkley says it is "a handsome and hardy species...that will form a dense shrub to 15 feet over time, and is ideal for a low informal hedge." Its eight-inch leaves are coated with a gray, waxy covering; white flowers bloom in clusters in spring, followed by blue-black fruit in autumn.

# TRUE AND FALSE HOLLIES

Inkberry (*Ilex glabra*, Zones 5–9, 9–3) has a softer, airier look than other evergreen hollies, with comparatively thin, one- to two-inch leaves and a bouquetlike habit the stems bunch together at the bottom and billow out above.

Native to the pine woods of the coastal plain from Nova Scotia to Texas, it is adapted to habitats periodically ravaged by fire, and thus gives rise to multiple five- to 10-foot stems from thick, tuberous rhizomes in a manner unlike most other hollies. The small, late-spring flowers attract bees, and the black, berrylike drupes on female plants may persist over winter. Inkberry is an inspired choice for chronically boggy ground in either sun or shade and is superb in a naturalistic planting.

Its tendency to drop its lower leaves has been problematic in more formal settings, although an acid soil, adequate water, and diligent pruning go a long way toward overcoming the legginess. Numerous

# **MORE BROADLEAF EVERGREENS**

| Name  | Height/<br>Width (ft.) | Notes/Use   | Native<br>range         | USDA, AHS<br>Zones |
|---|------------------------|---|-------------------------|--------------------|
| Aucuba japonica<br>(Japanese laurel)                                  | 6-10/5-8               | large lustrous leaves, bright red<br>fruit on females, variegated varieties,<br>requires shade/border or hedge                            | Japan                   | 6–10, 12–6         |
| Buxus 'Green Mountain' (boxwood)                                      | 5/3                    | upright, pyramidal habit/<br>foundation or hedge  | garden origin           | 6–9, 9–6           |
| Camellia sinensis<br>(tea plant)                                      | 4–6/4–6                | best for part shade, pink or white<br>flowers, drought tolerant after<br>established/ specimen or shrub border                            | China                   | 6–9, 9–6           |
| Cercocarpus ledifolius<br>(Curl-leaf mahogany)                        | 6–15/6–12              | glossy green foliage, decorative<br>seedheads in summer, drought<br>tolerant/specimen, shrub border                                       | mountains of U.S West   | 4–9, 10–4          |
| Grevillea victoriae<br>(Grevillea)                                    | 6/6                    | attracts hummingbirds, gray-green<br>foliage, fast growing, drought tolerant/<br>specimen or shrub border                                 | Australia               | 8–11, 11–8         |
| Ilex ×meserveae 'Blue Princess' (Meserve hybrid holly)                | 10/10                  | glossy, spiny, blue-green foliage,<br>bright red fruit/foundation or hedge  | garden origin           | 5–9, 9–5           |
| Illicium anisatum<br>(Japanese anise tree)                            | 10–15/5                | broadly pyramidal, greenish white flowers in spring/ hedge, screen, foundation  | Japan, China,<br>Taiwan | 7–9, 9–7           |
| Illicium parviflorum<br>(Yellow anise)                                | 8–12/4–8               | smallish yellow summer flowers<br>thrives in moist sites in part shade/border.<br>Cultivar 'Forest Green' has darker,<br>glossier foliage | Georgia to<br>Florida   | 7–9, 9–6           |
| Morella caroliniensis<br>syn. Myrica heterophylla<br>(Swamp bayberry) | 7–12/8–10              | deep green, evergreen or semi-evergreen<br>foliage, waxy gray-white fruits, tolerates<br>wet soil/ screen, shrub border                   | eastern<br>U.S.         | 6–9, 9–5           |
| Pieris floribunda<br>(fetterbush)                                     | 6/6–10                 | rounded form, dark green foliage, fragrant white spring flowers/shrub border, massing   | southeastern U.S.       | 5–8, 8–5           |
| Pieris japonica<br>(Japanese andromeda)                               | 9–12/6–8               | leaves emerge pink to bronze, mature to<br>dark green, pendulous spring flowers/<br>specimen, shrub border, massing                       | Japan, China,<br>Taiwan | 6–8, 8–6           |
| Rhaphiolepis umbellata<br>(Indian hawthorn)                           | 5/5                    | dark green leaves, white spring flowers, tolerates wind and salt/massing, hedge   | Korea, Japan            | 8–11, 12–8         |

compact selections have been introduced in a further effort to address this perceived defect. 'Nigra', a female clone with densely packed, dark green leaves, and Nordic® ('Chamzin'), a compact male, are two of the best for use as a low hedge or foundation planting. Claire Sawyers, director of the Scott Arboretum in Swarthmore, Pennsylvania, likes the selection 'Densa', which she considers "a subtle workhorse to hide many blemishes in landscapes." It is a Pennsylvania Horticultural Society Gold Medal winner that tolerates sun, shade, heat, and drought while maintaining a dense, compact habit.

With its tough, spiny leaves, Osmanthus heterophyllus 'Goshiki' (Zones 7–9,

9–7) in my yard is routinely mistaken for a variegated holly. The leaves of hollies, I like to point out, are arranged alternately on the stem, while those of the tea olives or false hollies are opposite one another. On my showy but slowgrowing 'Goshiki', which may someday reach the predicted six to eight feet, the new leaves are flushed rose and copper, while mature growth is splashed green, cream, and yellow.

The dark green, evil-looking cultivar 'Sasaba' has such wickedly spiny leaves that Dirr calls it "a plant handler's worst nightmare." But the small white flowers clustered in the leaf axils in fall are divinely fragrant and are reason enough to

cultivate even this sinister nine-foot-tall creature. A Japanese member of the olive family, *O. heterophyllus* is easy to grow in most wel- drained soils and seems to perform best in sites where it gets some shade from afternoon sun.

"Our area can be pretty rough in the winter," says John Fech, extension educator at the University of Nebraska—Lincoln. "The fluctuations of cold and warm temperatures that happen in a relatively short period of time...causes most broadleaf evergreens to desiccate." One of Fech's favorites that tolerates such rigors is Oregon grapeholly (Mahonia aquifolium, Zones 5–9, 9–3), a native of western North America with a slowly spreading, some-

# Sources

Fairweather Gardens. Greenwich. NJ. (856) 451-6261. www.fair weathergardens.com. Catalog \$5.

Greer Gardens, Eugene, OR. (541) 686-8266. www.greergardens. com. Catalog free.

Heronswood Nursery Ltd., Kingston, WA. (360) 297-4172. www.heronswood.com. Catalog \$5.

Klehm's Song Sparrow Nursery, Avalon, WI (800) 553-3715. www.song sparrow.com. Catalog free.

Roslyn Nursery, Dix Hills, NY. (631) 643-9347. www.roslynnursery. com. Catalog \$3.

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

# Resources

**Manual of Woody Landscape Plants** by Michael A. Dirr. Stipes Publishing, Champaign, Illinois, 1998.

what open habit. Its compound leaves with glossy, hollylike leaflets often turn burgundy in the fall. Bright yellow flowers appear in early spring followed by dark blue fruit. It thrives in moist, rich soil and part shade. Capable of growing to eight or nine feet, it often tops out at five.

# VIRTUALLY INDESTRUCTIBLE

Now, if all you want in an evergreen shrub is an indestructible wall of shaggy dark green, you can't go wrong with the commercial landscaper's best friend, common cherrylaurel (Prunus laurocerasus, Zones 6–9, 9–6). This beautiful workhorse shrub thrives in moist, well-drained, humus-rich soil in either sun or shade, but I see it gamely enduring appalling situations in shopping mall parking lots—even repeated SUV-inflicted trauma. Naturally, it takes salt spray. Upright racemes of white flowers in spring are an added bonus. The selection 'Zabeliana' has a loose, sprawling

# **EVERGREENS WITH WANDERLUST**

I dearly love nandinas (Nandina domestica, Zones 6-11, 12-4). No other broadleaf evergreen shrub brings such a blaze of color with both leaf and fruit to the winter garden. I'm also fond of the boldly spiny leaves, fragrant, lemon-yellow winter flowers, and frosty blue fruit of leatherleaf mahonia (Mahonia japonica 'Bealei' and



Nandina domestica has spread into wild areas in parts of the Southeast.

close kin, Zones 7-9, 9-7). But for years I've noticed that, when I go hiking in the woods, I often run across these two non-natives, apparently spread by birds that relish the fruits.

Harvey Cotten of the Huntsville Botanical Garden in Alabama notes the irony of this situation: "Here we are planting these species in part to attract wildlife to our gardens, and we have the consequence that the plants escape into the wild." While Cotten doesn't believe that nandinas and mahonias are displacing native communities—at least in the middle part of the Southeast—he feels it is cause for concern that they "are showing up in places where they were not intentionally planted by people." According to the Southeast Exotic Pest Council, both genera have found their way onto lists of invasive exotic pests and nox-

ious weeds compiled by organizations in several southeastern states. "Increasingly, from the perspective of the green industry, one of our challenges is to offer plants that are sterile," says Cotton. —С.В.М.

habit to five feet high and much wider. 'Majestic Jade', a seedling of the ubiquitous three- to four-foot 'Otto Luyken', grows to eight feet tall and has a broader



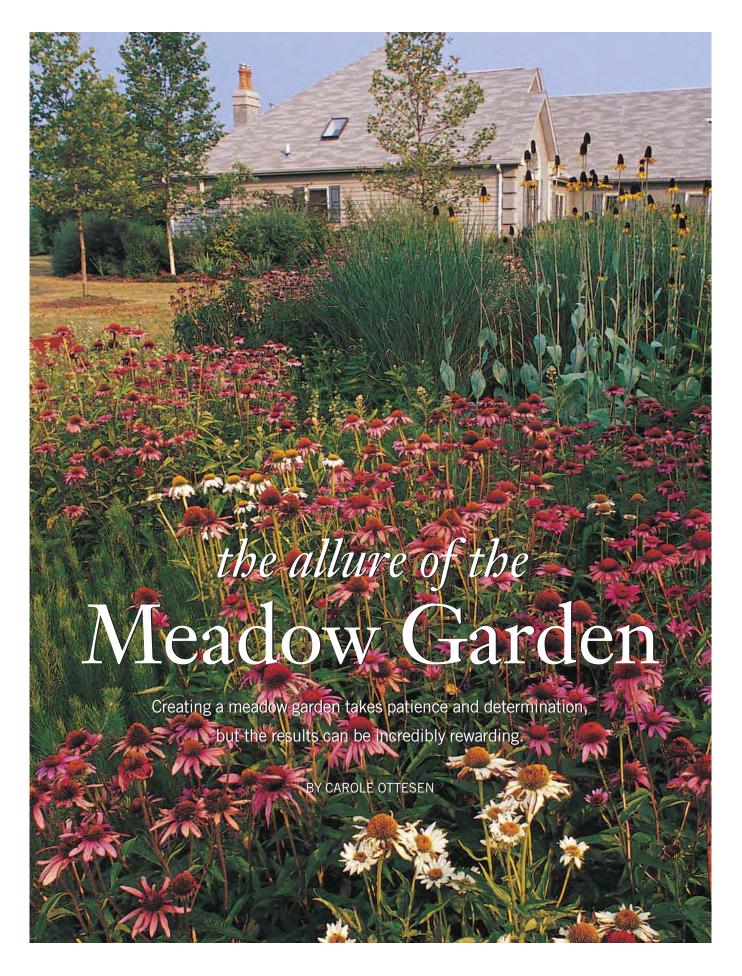
Mahonia aquifolium has fragrant yellow flowers and glossy hollylike leaves.

leaf than its parent and an upright, narrow demeanor. 'Anbri' (Etna) grows to eight feet high and wide, and is distinguished by its bronze tip growth.

# GARDEN WORKHORSES

Offering a combination of seasonal charm and year-round color in most regions, these mid-size broadleaf evergreens are versatile enough to address any number of landscaping functions and sites. Whether you are looking for hedging options, specimens to add yearround color to a mixed border, or foundation plants to dress up your home, you're sure to find several choices well adapted to your needs. If you are just starting a garden, they are valuable structural elements around which you can fill in the rest of your landscape.

A garden writer and designer, Carol Bishop Miller lives in Huntsville, Alabama.



HERE'S ROMANCE IN A MEADOW. A field of pliant, swaying grasses and bright summer flowers evokes a time when the world was a younger, simpler, safer place. Global warming wasn't happening, fish were jumping out of pristine lakes and streams, and genetically modified corn and soybeans were pure science fiction.

Along with a meadow's aesthetic charms, the yearning for simpler times was and remains a force behind a meadow movement that came to life in the iconoclastic Sixties. Around that time, packets of mixed wildflower seeds began appearing on the market. The idea was that one had only to scatter the seeds on the waiting ground and, presto, a meadow would spring up.



We all know that is not what happened. Typically, the results were disappointing, if not disastrous. But the allure of meadows remained. With trial, error, and energy, gardeners learned how to make them. And they now know that while meadows appear to come about as gracious, spontaneous gifts of nature, appearances deceive.

More than 20 years ago, a meadow was started at River Farm, home of the American Horticultural Society in Alexandria, Virginia. Two acres that had once been a field and had subsequently become a lawn, were disc-harrowed and seeded with a suitable wildflower mix. In record time, the entire two acres produced a bumper crop of pokeweed (Phytolacca americana). Steve Davis, then horticulturist, theorized that the discharrowing brought to the surface pokeweed seeds that had lain dormant for 100 years. They had germinated swiftly and easily outgrew the slower-developing wildflowers. Davis learned the hard way that one of the toughest places to start a meadow is in what was once a field.

Above: Broad drifts of soft purple Monarda fistulosa and golden yellow Heliopsis helianthoides flowers are punctuated with Liatris pycnostachya, Echinacea purpurea, and various grasses in this Connecticut meadow designed by landscape architect Richard Bergmann. Previous page: A variety of colors, heights, and contrasting textures provide a long season of interest in Stephanie Cohen's meadow garden outside Philadelphia.

# FROM THE GROUND UP

"It is vital that competing weeds be eliminated to allow the young seedlings to grow," says Neil Diboll, president of Prairie Nursery, a Westfield, Wisconsin, firm that has installed meadows and prairies around the country. (For more about prairies, see "The Prairie Difference," right.) The way to do that is to prepare the site with a regimen tailored specifically to existing conditions.

When old fields are prepared for planting by cultivation alone, "every cultivation cycle brings up new weed seeds to the soil surface where they can germinate," explains Diboll. It may take cultivation every two to three weeks for a year or more until the weeds are gone.

Using an herbicide such as glyphosate to kill existing vegetation is tempting because the soil need not be turned, so seeds remain buried, although several applications may be needed during the season to kill weeds that arise at different times.

When a more recent attempt to start a meadow at River Farm began in 2003, glyphosate was employed to prepare the site (for more details on River Farm's meadow and its establishment, see "How to Make a Meadow," page 34).

While the large size of the River Farm meadow made using glyphosate a practical choice for clearing the soil, horticulturist and author Stephanie Cohen opted for an organic method to prepare her roughly half-acre meadow site alongside her house on the outskirts of Philadelphia. She eliminated existing growth by first removing the sod and then "putting newspaper down in the fall to smother everything that might come up."

For those uncomfortable with using chemicals to prepare the ground for meadow plants, the smother-method is simple and effective, particularly for small-scale plantings.

To keep the newspaper in place, cover it with a layer of any organic product that will decompose—chopped leaves, grass clippings, etc. To be effective, however, this method takes months.

Cohen began her meadow preparation in fall. Over the winter and early spring, she says, "the layers of newspaper kept unwanted plants from germinating. And we didn't plant until the beginning of May."

Solarization, another organic tech-

# THE PRAIRIE DIFFERENCE

Although similar in appearance, naturally occurring meadows and prairies are distinctly different types of plant communities. A meadow is a transitional stage while a prairie is a comparatively stable community.

A meadow, often a small opening in woodland, may be a naturally occurring community of forbs and grasses where erratic rainfall or drought discourages



Prairies, like this one in Missouri, are typically grasslands.

the establishment of trees. Or it may be an abandoned field in transition to woodland. To prevent the natural succession of a meadow to woodland—and to maintain a meadow garden—opportunistic woody plants must be removed and the meadow mowed periodically.

Before European settlement in North America, prairie was the dominant flora of vast areas of the continent, covering over a million square miles. A prairie is a climax community, predominantly grassland, typically treeless, with only about 30 percent forbs and less than five percent shrubs. Prairies can be tall grass, short grass, or mixed, depending upon rainfall and site conditions. In nature, prairies often regenerate by fire; after the above-ground vegetation burns off, the fire resistant roots re-grow.

—Rita Pelczar, Contributing Editor

nique for meadow preparation, involves spreading and anchoring clear plastic sheeting over the area to be planted in order to trap the sun's heat. In full sun, this raises soil temperatures to as much as 140 degrees Fahrenheit on the surface and as much as 100 degrees a foot or more down



Spreading layers of newspapers over bare soil to smother weeds is one effective technique for meadow site preparation.

into the soil. If undertaken for three to six weeks in sunny weather during the hot summer months, the plants and seeds under the plastic covering will be killed. After the plastic sheeting is removed, the area can be seeded or plugged with young plants. (For more information about soil solarization, see "SMARTGARDEN: Harnessing Solar Power" in *The American Gardener*, July/August, 2003.)

# LET IT BE

It is also possible simply to let a field grow. The late, great Pennsylvania gardener Joanna Reed created her meadow successfully this way, and it has also worked beautifully in the meadow in Fern Valley, home of the native plant collection at the U.S. National Arboretum in Washington, D.C. Reed augmented her meadow by plugging in desirable forbs. She also monitored the meadow closely, cutting out plants she didn't want.

# **HOW TO MAKE A MEADOW**

The André Bluemel Meadow at River Farm, which will eventually encompass five acres, was initiated in 2003. Although the scale of this meadow is larger than most people would plan for a home garden, the steps involved in its establishment are the same.

#### Step 1: ELIMINATE WEEDS

Weeds can be eradicated by a variety of methods, including repeated tilling, smothering with newspaper, solarization, and herbicides (see page 33). The method you choose depends on factors such as the size of the planned meadow and your energy level or access to "helpers". Because of the scope of the AHS meadow project, AHS Horticulturist Peggy Bowers used several applications of glyphosate herbicide to kill the existing vegetation.

#### Step 2: SOW SEEDS AND/OR PLANT PLUGS

Once the meadow site is cleared of weeds, it's time to sow seeds or plant the meadow with the mixture of grasses and forbs you have chosen. Midspring or early fall are the best times to plant. If you are sowing seeds, use a rake to loosen the top layer of soil and scatter your seeds. Cover the area with a fine layer of weed-free straw.

If you are putting in plants, plugs are the most economical choice. Plant individual herbaceous perennials and grasses in broad swaths for best effect, setting plants about a foot apart so they have a little room to spread but will overlap to crowd out weeds.



The first quarter of River Farm's meadow project was initiated in 2003. By August 2005, (above) a variety of forbs and grasses had taken root and spread.

For the first phase of the River Farm meadow, Bowers seeded in 100 pounds of little bluestem (*Schizachyrium scoparium*). With the help of many volunteers and AHS staff members, she also planted over 35,000 plugs—with a ratio of three grasses to one forb—donated by former AHS Board Chair Kurt

Bluemel of Kurt Bluemel Nursery, Inc., in Baldwin, Maryland.

#### Step 3. WATER AND WEED

After seeding or planting a meadow, it must be watered immediately. Regular irrigation is needed for the first growing season to help plants get established.

Initial maintenance of a meadow is intensive. Watering with sprinklers and an average of 20 hours of weeding weekly has been required during the first season of each phase of River Farm's meadow.

## Step 4. MOW PERIODICALLY

Mowing the meadow once or twice a year cuts back the previous year's dead vegetation and helps prevent opportunistic woody plants from developing. The meadow at River Farm is mowed once a year, in February. Pathways are mowed more frequently to ensure visitors have an inviting entryway into the meadow.

—С.О.





Volunteers, AHS staff members, and helpers from Mount Vernon and Kurt Bluemel Nursery, Inc. undertook the daunting task of setting over 35,000 plugs into the ground.

This just-letting-it-grow method presupposes that the gardener will:

- I) monitor the meadow regularly and be able to recognize potentially unwanted plants and woody growth while it is young enough to be yanked out, and
- 2) take the time and effort to systematically destroy them as they emerge.

# PLANTING THE MEADOW

Once the existing vegetation is eliminated, it's time to sow seed or plugs—small rooted plants. For a large area, seeds are cheaper, but slower to develop. To prevent seeds from blowing away and help keep them moist, consider applying a light mulch.

"The benefit of plugs over seeds are that the meadow establishes faster," says River Farm Horticulturist Peggy Bowers, "and you can create patterns." Instead of random planting for the River Farm meadow, Bowers sited taller grasses farther back, while short grasses such as *Bouteloua gracilis* were planted on the front edge. She placed forbs in swaths throughout the meadow. Cohen planted her meadow using plugs and a few native bulbs.

Although most meadow species tolerate drought fairly well, it is important to water the seeds or plugs until they are well established. After planting her meadow Cohen "watered it for several weeks." After that, says Cohen, "we did nothing." At River Farm, the meadow was watered weekly unless there was a significant rainfall. Watering continued for a year.

# Resources

**Meadows** by Christopher Lloyd. Timber Press, 2004.

**Natural Landscaping** by John Diekelmann and Robert Schuster. University of Wisconsin Press, 2002.

The Wildflower Meadow Book: A Gardener's Guide by Laura C. Martin. Globe Pequot Press, 1990.

# MOWING IT DOWN

"A meadow left to its own devices," says Bowers, "will not stay a meadow." Once it is up and growing, maintaining it involves removing invading weeds and periodic mowing to prevent woody plants from taking over. Mowing timing and frequency varies depending on the situation. At least one mowing is generally recommended between late autumn and early spring. Cohen cuts her meadow back once a year in February as does Bowers.

For aesthetic reasons, Reed usually mowed twice each year—once in late winter and again in midsummer. Summer mowing kept the meadow shorter, which made it easier to see the flowers that came up. Summer mowing should be timed to avoid disturbing nesting wildlife and emerging box turtles.

Cohen also maintains a neatly cut edge

AHS Horticulturist Peggy Bowers mows the meadow at River Farm once a year, in February, to remove opportunistic woody plants and allow desired plants to grow in the new season.

around her meadow because it prevents the meadow from encroaching on her lawn, and it "keeps people from thinking it looks unkempt," she explains.

The twice yearly or annual mowing is a maintenance dream that takes time, because the labor of meadow-making is heavily front-loaded. "The first year is the hardest," says Bowers, who ticks off troublesome intruders to be eliminated: from vines like oriental bittersweet and Japanese honeysuckle to woody plants such as ailanthus and paulownia that grow back with vigor from their stumps after mowing. To rid the meadow of these nuisances Bowers paints the cut stumps with Garlon®, a weed and brush herbicide.

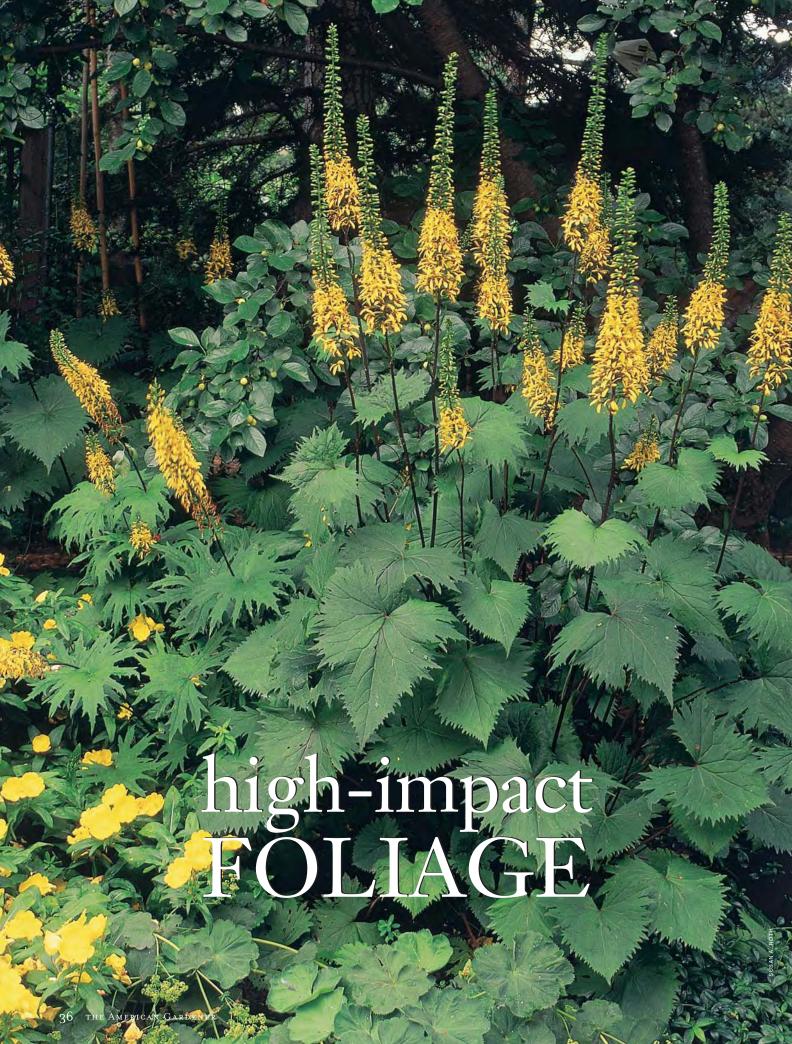


A monarch butterfly alights on some milkweed flowers in the River Farm meadow.

Already the River Farm meadow is showing promise: "Meadows are not low maintenance but they are low impact on the environment," says Bowers. "As far as wildlife is concerned, the meadow is providing numerous kinds of habitats." Bowers has observed bobwhites, eagles, robins, groundhogs, wild turkeys, and a family of foxes who have made the meadow their home. Bluebirds nest in their boxes, and a variety of butterflies abound.

Anyone who has installed a meadow will tell you it is the devil to get started, but well worth the effort. Inscribed on a piece of slate in the River Farm meadow are the words left by Emily, Annie, and Jess—AHS interns who helped Bowers plant and weed the meadow last summer: "Meadows are not made by sitting in the shade."

Carole Ottesen is a contributing writer for The American Gardener.



S IZE MATTERS, at least where leaves are concerned. Big, brassy leaves demand attention. They satisfy our craving for the exotic and appeal to our theatrical side. Their sculptural presence serves as a garden focal point. In a garden vignette or composition, they are the perfect foil for more finely cut or linear foliage.

Big leaves are as functional as they are fanciful. They serve as solar collectors, spreading wide to trap the most light from the sun's rays. Large leaves have a greater surface area for photosynthesis: the more photosynthesis, the more growth. Some trade-offs exist, however.

Big leaves are expensive to maintain. They require a lot of water to keep them turgid and in prime condition. Some pre-

Hardy herbaceous perennials with bold foliage add drama and texture to the garden.

### BY C. COLSTON BURRELL

fer to grow streamside, with their feet in water. Others demand only deep, rich soil and consistent summer moisture. Most thrive in sites where a sheltering canopy of trees or shrubs protects them from the most intense rays of the sun.

Given sufficient moisture, protection from wind, and ample shade, big-leaf plants can grow to gargantuan proportions. They generally form stout rootstocks and multiple crowns. Where conditions are right and space is sufficient, the following leafy drama queens make exciting additions to any garden setting.

### ARRESTING ASTER RELATIVES

The glossy, reniform (kidney-shaped) leaves of *Farfugium japonicum* (syn. *Ligularia tussilaginea*, USDA Zones 7–8, AHS Zones 8–6) are evergreen in most zones, making them valuable additions to both winter and summer landscapes. This aster family (Asteraceae) beauty delays flower-

Opposite page: Rocket bursts of yellow flowers illuminate the bold foliage of *Ligularia stenocephela*, right, and *L. przewalskii*, left. Right: The leaves of *Ligularia dentata* display their "toothy" margins.

ing until October and November, when it sends up clear yellow daisies. Multiple ornate leaf forms and patterns have been selected, a few of which are widely available. 'Argenteum' boasts oversized leaves that are irregularly washed with white and sea green. 'Aureomaculatum'—called leopard plant—has pleated leaves splashed with yellow blotches. 'Crispatum' sports sea-green leaves ruffled like an old-fashioned petticoat. 'Giganteum' offers enormous, waxen leaves that are two feet or more wide.

A protected site in light to full shade suits these Asian natives, although their foliage develops its full size and luster only in bright light. Choose a spot that has well drained but consistently moist soil. Unlike other bold-leaf plants, farfugiums are moderately drought-tolerant once well established. New foliage emerges early, at which time it is best to remove any old leaves that are worse for wear. At the upper limit of their hardiness range, farfugiums are deciduous.

Closely related to farfugiums is the genus *Ligularia*. The ragged, spear-shaped

leaves of Shavalski's ligularia (*Ligularia* przewalskii, Zones 4–8, 8–1) are easily upstaged by its tall spires of yellow, early summer flowers. In concert, foliage and flowers create a dramatic display that has few rivals. The early spring foliage emerges with a purple tint, ultimately expanding into rich green, deeply lobed and toothed leaves that are two feet long and one-anda-half-feet wide. The medium-yellow, five-petaled daisies of this aster relative are gathered into dense spires that ascend six or more feet.

Ligularias thrive in soggy sites with deep, fertile organic or loamy soils, and they demand consistent moisture to keep their foliage firm and unflagging. Drying winds, hot sun, or insufficient moisture cause wilting. Although wilting is not fatal, huge leaves hanging limp on their petioles certainly spoil the plant party. In the cool of evening, ligularia foliage quickly recovers its composure. Prolonged wilting and insufficient moisture ultimately compromise the plants, however. The leaves will languish and plants begin to decline in size and substance.



Bigleaf ligularia (L. dentata, Zones 4-8, 8-1) has kidney-shaped leaves that show off pinked margins. Popular cultivars such as 'Othello' and 'Desdemona' have dark purple leaves that fade to deep black-green where summer nights are hot. The broad, arrowhead-shaped foliage of narrow spiked ligularia (L. stenocephala) forms a wide skirt around erect spikes of starry yellow summer flowers.

Ligularia 'Zepter' is a massive hybrid that offers wilt-resistant foliage and bold yellow flower spikes.

### SIZEABLE SAXIFRAGES

Dramatic Astilboides tabularis (Zones 5–7, 7-5) demands your undivided attention. The giant, circular-saw leaf blades vary in size from a modest two feet to a whopping four feet across, given ample moisture and rich soil. The leaves are supported by an infrastructure of impressive veins that radiate like spokes from stout petioles. In summer, huge trusses of creamy white to pale pink flowers nod above the foliage. Mature leaves are bright green with a surface rougher than sandpaper. Native to China and Korea, this member of the sax-

ifrage family (Saxifragaceae) dominates any setting.

Plant astilboides in deep, humus-rich, consistently moist loam. Ideal sites are beside a pond, along a slow stream, or in a bog garden, where sedges and ferns provide contrast.

Darmera peltata (syn. Peltiphyllum peltatum, Zones 5–8, 8-5)—sometimes called Indian rhubarb—is one of two unrelated American natives that share the common name of umbrella leaf or umbrella plant (the other one is Diphylleia). The fresh young foliage is reminiscent of an umbrella blown inside out in a gale. As the leaf expands, the blade bends downward at the edges. At maturity, the two-footwide leaves with their scalloped

edges are somewhat bowl-shaped to nearly flat. Before the foliage expands, dense clusters of as many as 100 pale pink flowers rise on stalks that may reach two feet in height. The flowers recall those of pigsqueak (Bergenia spp.), which are also in the saxifrage family.



Umbrella leaf is native to the Sierra Nevada of California and Oregon, where it thrives in cool waterside settings. Plant it in consistently moist to wet, deep, humus-laden soil in sun or shade. Its charcoal gray rhizomes creep over the soil's surface like enormous centipedes. Established Rodgersia podophylla, above, and Astilboides tabularis, left, reveal their shared heritage in the saxifrage family through giant leaves and dense inflorescences of creamy white flowers held aloft on spikes.

clumps spread ever outward and can quickly colonize a plot of ground several feet across. Because of this, it is best reserved for large bog or water gardens, or in a container sunk into a shallow pond.

Rodgersia podophylla (Zones 5–8, 8–5) has one- to two-foot-long palmately compound leaves. Each of the five to seven leaflets has a squared tip and ragged, toothed margins. These dramatic plants excel in foliage and flower. Flowering stems bear one to three smaller leaves and are crowned by elongated clusters of cream-colored flowers in late spring and early summer. Rodgersia aesculifolia (Zones 5-8, 8-1) is similar in leaf construction, but the leaflets taper to abrupt, rounded tips. The five to nine quilted leaflets of *R. pinnata* (Zones 3–7, 7–1) may be palmately or pinnately arranged,

Erect panicles of red or pink flowers appear in summer.

Plant the stout rootstocks of rodgersias in fertile woodland soil that does not dry out in summer. Mature clumps will reach several feet across. The rough, hairy foliage sunburns easily, so protect it from hot afternoon rays and drying winds.

### **WONDERFUL WAXBELLS**

The waxy yellow shuttlecock-shape flowers of Japanese yellow waxbells (Kirengeshoma palmata, Zones 5-8, 8-5) hang in open clusters from the tips of wiry black stems in late summer or autumn. This late-season charmer in the hydrangea family (Hydrangeacae) gives a boost to summer-weary shade gardens. In summer, charcoal stems supporting eight- to

The closely related Korean yellow waxbells (K. koreana, Zones 5-8, 8-5) is a taller and more upright plant that shows off outward-facing, bucktoothed flowers in August. Planting the two species together extends the season to more than a month of bloom.

Yellow waxbells are native to sheltered woods and shaded stream banks in Japan and China. They need protection from hot dry winds, and bloom best when given ample light. However, too much sun—especially hot afternoon rays—will burn the foliage.

### **BODACIOUS BARBERRIES**

An enormous green Elizabethan-style collar sets off the showy but short-lived white flower clusters of Diphylleia cymosa (Zones

4–8, 7–3), also known as American umbrella leaf. The ephemeral flowers of this native of the southern Appalachian mountains open as its leaves unfurl. The flowers' untimely demise leaves one feeling robbed, but the expanding foliage soon relieves the disappointment. Each basal leaf is rounded in outline and has deeply cut sinuses accented by sharp, attenuate lobes. The leaves that sit below the flower are constricted in the center, recalling the paired leaflets of twinleaf (Jeffersonia spp.), a close relation in the barberry family (Berberidaceae). Paired stem leaves, which are accented by the larger, basal foliage, quickly

expand to two feet across. Ample moisture and cool nights are requisite for keeping the foliage at its best through the summer. In August, the plant produces green berries that soon darken to indigo coated with powder blue, accented by bright cerise pedicels.

Plant umbrella leaf in deep, humusrich, consistently moist soil in light to



Late-blooming Japanese yellow waxbells grow best protected from intense sunlight.

10-inch, maplelike leaves add tantalizing garden texture. Mature clumps produce dozens of stems, and the plant attains the size of a small shrub. A drift of plants is riveting in bloom.

### **DESIGNING WITH FOLIAGE**

Shaded areas often are underwhelming after the peak of spring bloom. Dramatic foliage, however, will keep your garden interesting long after the flowers have faded. Hardy, boldleaved perennials provide seasonlong tropical elegance without the bother of digging and storing them at season's end.

Contrast is the key to creating a satisfying picture, no matter what the medium. Light and dark, fine and coarse, big and small—contrast creates the tension that makes a composition interesting. In a painting, a spot of color, a piercing ray of light through the darkness, or a compelling form holds the gaze. In a garden bed, contrast may come from a decorative urn, a brightly painted wall, blue delphinium spires, or the dramatic form of a green goliath.

Artful compositions—whether on canvas or in chlorophyll—require a focal point. Without a resting spot, the eye wanders and can easily overlook the composition's details. When the eye rests on a specific point, however, it can effortlessly appreciate an arrangement's intricacy. Few plants hold the eye as well as perennials that have gargantuan greenery.

Place dramatic leaves in the garden's foreground to frame a distant view, or use them at a vista's endpoint to draw the eye. Set them amid other plants as you would a decorative container or a bench, and surround them with plants that have more finely textured or spikier foliage, such as ferns, sedges, and irises. To add more depth and interest to the composition, mix in some plants with colored foliage.

For a truly outrageous planting, try a battle of the bold—rhubarb amid other large-leaved plants that thrive in moist soil such as elephant ears (Colocasia spp.), swamp lilies (Crinum spp)., and cannas.—C.C.B.



The striking foliage of umbrella leaf offers a pleasing contrast to the more delicate flowers and foliage of plants such as woodland phlox and ferns, which are also suited to moist, shady sites.

full shade. A prolonged dry spell will result in premature dormancy. Where nights are hot, plants quickly retreat underground. In the wild, plants grow in rich coves along stream banks or bathed in the cool water of seepage slopes, where they never dry out.

Another bold-leaved herbaceous member of the barberry family, Podophyllum pleianthum (Zones 6-8, 8-5) is pure eye candy. The two-foot plant bears single, deep green and highly glossy basal leaves. Broad, blunt lobes give the leaf a scalloped look. When paired with plants that have matt-finish foliage, the foot-long leaves always dominate the composition. Stem leaves are paired, one leaf slightly higher than the other, and they shield exotic, nodding, maroon flowers that bloom in April and May. Although it is not a bog plant, this Asian woodlander requires rich, consistently moist soil. New growth emerges early in spring and late freezes often damage it. The years you beat the odds, the plants are breathtaking, and they remain attractive through the summer.

Podophyllum difforme (Zones 6–9, 8-6) is another coveted species that is smaller in stature. It has parallelogramshaped leaves that emerge in brown to maroon shades. A new and much sought after hybrid, 'Kaleidoscope', boasts bright green leaves mottled with cream and deep black-green.

### REGAL RHUBARB

The foliage of ornamental Chinese rhubarb (Rheum palmatum, Zones 5-9, 9-1) has one of the boldest textures available to temperate-zone gardeners. This goliath in the buckwheat family (Polygonaceae) is grown for its enormous, clawed leaves as much as for its tall, imposing flower clusters. Emerging leaves are deep purple; they fade to deep green with a purple reverse in summer. The leaves of mature plants stand as tall as four feet. The seven-foot bloom spikes expand to reveal ascending horizontal side branches that are studded with small, creamy white flowers. Plants take several years to mature, so patience is required, but they are worth the effort. R. 'Atrosanguineum' is similar in proportions to the species and is equally dramatic in flower. It sports bronze-tinted leaves through the summer and smoky cerise-colored flowers.

Culinary rhubarb (R. rhabarbarum, Zones 5-8, 8-1) is a handsome ornamental in its own right, but remember, of

### Resources

Consider the Leaf by Judy Glattstein. Timber Press, Portland, Oregon, 2003.

Herbaceous Perennial Plants by Allan M. Armitage, Stipes Publishing, Champaign, Illinois. 1997.

### Sources

Asiatica Nursery, Lewisberry, PA. (717) 938-8677 (No phone orders). www.asiaticanursery.com. Catalog online.

Big Dipper Farm, Black Diamond, WA. (360) 886-8133. www.big dipperfarm.com. Catalog online.

Digging Dog Nursery, Albion, CA. (707) 937-1130. www.digging dog.com. Catalog \$4.

Forestfarm, Williams, Oregon. (541) 846-7269. www.forestfarm.com. Catalog \$5; free online.

White Flower Farm, Litchfield, CT. (800) 503-9624. www.whiteflower farm.com. Catalog free.

course, that its foliage—and that of all rhubarbs—is poisonous.

Rhubarbs are voracious feeders. Give them humus-rich, loamy soil that stays evenly moist all season and fertilize regularly. They delight in boggy spots, where their crowns are above water and their roots are in the damp soil. Full sun brings out the best foliage color, but plants grow well in part shade, too. Where summer nights are hot, plants will decline after flowering, but will resprout from the quiescent crowns in late summer.

Large leaves punch up any planting. Use them judiciously but with resolve, and your garden is sure to shine.

C. Colston Burrell is an award-winning author, photographer, and garden designer. His most recent book, co-authored with Judith Knott Tyler, is Hellebores: A Comprehensive Guide (Timber Press, 2006).

Acanthus mollis

#### **MORE PLANTS WITH BIG LEAVES** Name Height/ Flowers and foliage Sun/Shade **USDA, AHS** Native range Width (ft.) Zones Acanthus mollis 2-5/3-4 deeply lobed, lustrous dark 7-9, 10-7 sun to part shade eastern (bear's breeches) green leaves; pinkish flower Mediterranean spikes above the foliage Aralia cachemirica 4-6/4-6 intricately divided foliage light to full shade northwest Himalayas 7–9, 9–7 (Himalayan spikenard) up to six feet long boasting bold leaflets Filipendula 5-7/3-4 huge, maplelike leaves, sun to light shade Far East, Japan 3-7, 8-1 camtschatica large clusters of fragrant (Kamchatka meadowsweet) white flowers Lysichiton 3-5/3-5 early yellow flowers before sun to full shade Pacific Northwest 5-7, 7-5 the elongated, rubbery leaves americanus (American skunk cabbage) expand; dormant or tattered by late summer Napaea dioica 3-6/3-4 dramatically dissected basal sun to part shade eastern and 5-7, 8-3 (glade mallow) leaves and tall stalks bearing central North wide clusters of small white America chalices Syneilesis palmata 2-4/2-4 deeply cut gray-green foliage; light to full shade northeast Asia 4-8, 8-1 (syneilesis) tall spikes of fuzzy, composite flowers in summer Telekia speciosa 3-5/3-4 ragged daisies top leafy light to part shade central and eastern 4-8.8-5 (telekia) stems; toothed triangular Europe leaves have exceptional presence Veratrum viride 3-5/2-3 lush, ribbed foliage and sun to part shade mountains of eastern 3-8, 8-1 (green false branched, drooping spikes North America hellebore) of green flowers in early summer







Lysichiton americanus

Veratrum viride

# Eastern Deciduous Forest

Abundant choices for wildlife-friendly plants make habitat gardening a pleasure in this region.



◀HE EASTERN deciduous forest region of North America spans a portion of the upper Midwest and several inland states in the Northeast, including Wisconsin, Michigan, Indiana, Ohio, Tennessee, southeastern Missouri, southern Illinois, and eastern Minnesota. Here is a selection of outstanding plants for this region that will help turn your garden into a beautiful haven for wildlife.

### FLORAL FAVORITES

In spring, columbines (Aquilegia spp.), wild bleeding heart (Dicentra eximia), and wild strawberries (Fragaria vesca and F. virginiana) will draw bees, hummingbirds, and a host of songbirds to your garden. Wild strawberries attract more than 50 species of birds, including thrushes, flickers, grosbeaks, and cedar waxwings.

Herbaceous perennials in the Aster, Solidago, Eupatorium, and Helianthus genera bloom in mid- to late summer and fall. The Aster genus offers more than a dozen species (many of which have been reassigned to the genus Symphyotrichum) that are native to this region, including Aster divaricatus, A. dumosus, A. grandiflorus, A. laevis, A. novae-angliae, and A. shortii.

The pink, white, blue, and purple tones of asters are stunning paired with the sun-drenched colors of goldenrod



Top: Cornus alternifolia offers shelter and fruit for wildlife. Above: Aster novae-angliae is a late-season bloomer.

(Solidago spp.), of which 12 species—a few of which have been reclassified as Oligoneuron—are native to this region. Choose from delicate wreath goldenrod (Solidago caesia), bushy gray goldenrod (S. nemoralis), showy goldenrod (S. speciosa), and the unusual roundleaf goldenrod (S. patula), among others.

The Eupatorium genus includes Joe-Pye weed (Eupatorium maculatum), common boneset (E. perfoliatum), purple Joe-Pye weed (E. purpureum), and upland boneset (E. sessilifolium). Plant Joe-Pye in the back of the perennial border where it will provide plenty of floral drama.

Another back-of-the-border plant, Helianthus, provides both showy flowers and seeds for birds. There's a sunflower for nearly every part of this region, including the common annual Helianthus annuus, as well as perennial varieties such as H. divaricatus, H. maximiliani, H. giganteus, and H. occidentalis.

Other must-have habitat perennials include blazing stars (Liatris aspera, L. spicata, and L. cylindracea) and ironweeds (Vernonia gigantea and V. missurica), which butterflies love. Intersperse these herbaceous perennials with native bunchgrasses such as little bluestem (Schizachryium scoparium) to increase wildlife food sources and provide cover for small mammals and ground-loving birds.

### **WOODY WILDLIFE MAGNETS**

Fruiting trees, shrubs, and vines can provide food year round in your habitat garden, and they also yield visual bonuses of flowers and colorful berries.

Grow native wild roses along a fence or let them climb an arbor. Pasture rose (Rosa carolina), swamp rose (R. palustris), climbing rose (R. setigera), and prairie rose (R. arkansana) offer summer blooms and fall hips that birds relish.

The genus *Prunus* contains a wealth of summer-fruiting shrubs and trees that attract dozens of species of birds. Wild black cherry (Prunus serotina) is a favorite of 47 different birds as well as many small mammals. Wild red cherry (P. pennsylvanica) and common chokecherry (P. virginiana) fruits are eaten by eastern bluebirds; the latter also attracts 42 other bird species. American plum (P. americana) is yet another important food source for both wild creatures and humans.

Pawpaw (Asimina triloba) and persimmon (Diospyros virginiana) are summerfruiting trees that have always been popular with wildlife and are now of interest to urban gardeners as well.

In fall, dogwoods (Cornus spp.) feed migrating songbirds and nonmigrating birds such as wild turkeys. Thirty-four bird species enjoy the fruits of pagoda dogwood (Cornus alternifolia), 18 species dine on red-osier dogwood (C. stolonifera) and silky dogwood (C. amomum), and 17 different birds including the downy woodpecker, northern cardinal, eastern bluebird, and northern flicker appreciate gray dogwood (C. racemosa).

### Resources

Indiana Native Plant and Wildflower Society, P.O. Box 30317, Indianapolis, IN 46230. www.inpaws.org.

The Wildflower Gardener's Guide: Northeast, Mid-Atlantic, Great Lakes, and Eastern Canada Edition by Henry W. Art. Storey Communications, Pownal, Vermont, 1987.

Hackberry (Celtis occidentalis) and hawthorns (Crataegus spp.) will enhance your winter landscape with bright red berries. Twenty-four varieties of birds eat hackberry fruits, including Swainson's thrush, cardinals, flickers, and mockingbirds. Hawthorns are favored by ruffed grouse, cedar waxwings, and fox sparrows. Depending on which part of the region you live in, you can try cockspur hawthorn (Crataegus crus-galli), downy hawthorn (C. mollis), or my favorite—

### Sources

Prairie Moon Nursery, Winona, MN. (866) 417-8156. www.prairie moon.com. Catalog free.

Prairie Nursery, Westfield, WI. (608) 296-3679. www.prairie nursery.com. Catalog free.

Sunlight Gardens, Andersonville, TN. (800) 272-7396. www.sun lightgardens.com. Catalog free.

Washington hawthorn (C. phaenopyrum).

Habitat gardens will benefit year round from members of the Viburnum clan. Its many species offer glossy green foliage, fall color, spring flowers, and summer and fall fruits. Blackhaw viburnum (V. prunifolium) has it all: flowers, fruit, fall color, and deep green summer foliage. Mapleleaf viburnum (V. acerifolium) produces copious fruits and has pretty fall foliage. Nannyberry (V. lentago) has fragrant summer flowers and fall fruit that appears in tan-



The fruits of mapleleaf viburnum transition from green to red to deep blue as they mature.

dem with red and purple foliage. And you'll love American cranberry—often called highbush cranberry—(V. opulus var. americanum), which has pink-blushed foliage and white flowers in spring, followed by its blazing fall foliage and fruit. Plants like these are part of what makes wildlife gardening so much fun!

Joanne Turner Wolfe is a contributing editor for The American Gardener.







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### ONE ON ONE WITH...

### Bill Radler, Rose Breeder

by Lynda DeWitt

BORN ROSARIAN—or nearly so—William Radler bought his first rose at age nine. While he was A still a teenager, he began shuffling rose genes through selected pollination and bud grafting in search of a low-maintenance plant. In 2000, his breakthrough Knock Out™ rose, Rosa 'Radrazz,' became available to the public. This long-blooming, cold-tolerant, drought-, pest-, and disease-resistant shrub rose has won numerous awards in its short life.

Writer Lynda DeWitt recently spoke with Radler, one of the premier rose experts in the country, from his home in Wisconsin about Knock Out™ and future rose-breeding projects.



### Lynda DeWitt: Where does your passion for roses come from?

Bill Radler: As a kid at my grandparents' home, I spent hours looking through rose catalogs. The tremendous variety of shapes, sizes, and colors fascinated me. Soon, I was growing my own, and, before long, I joined the local rose society, Milwaukee's North Shore Rose Society, and learned how to propagate plants through cuttings and bud grafting.

Because I found there was so much work involved in properly caring for the roses, I decided to try and breed the maintenance out of them.

### So you're a self-taught rosarian?

Yes, largely. I have a degree in landscape architecture, and I spent some time as director of the Boerner Botanical Gardens in Milwaukee. I've also served as a consulting rosarian for the Chicago Botanic Garden.

### Describe your home and work garden.

I acquired my present garden in 1992. At that time, a seedling called 89-20.1—later named Knock Out™—was three years old. I moved it along with 600 others to my new home. The garden is an acre and a half in size, but it is in a lowland setting and most of it is too wet to grow roses, so



Bill Radler takes a break in his extensive Wisconsin home garden, left, which also serves as a testing ground for thousands of roses in his search of a few winners, one of which is the original Knock Out™, above.

I garden intensively on about half an acre. The location is perfect for screening for disease resistance because rose diseases thrive in the moist environment.

The rosarium consists of 14 beds of mixed plantings and 28 rows of roses. I keep a running inventory of about 1,400 roses at any given time, discarding those that don't perform well or show a high susceptibility to disease.

### Are there tips for keeping Knock Out™ roses going strong year after year?

The whole point of producing Knock Out™ (KO) was to help eliminate the



Winter-hardy Ramblin' Red is among Radler's more recent introductions.

"rules." But KO is still a rose, so it's wise to adhere to a few rules to get the best results.

In spring, prune back the canes to 10 inches from the ground. Remove dead, weak, and crossing canes to help reduce the incidence of minor leaf spot disease as well as encourage more uniform and compact plant growth.

When removing spent blooms, try not to take any leaves in the process. Removing leaves will discourage plants from quick repeat blooming.

Although KO is drought resistant once it has established, make sure that newly planted specimens are regularly given adequate water, especially if they are located near other thirsty plants.

In the fall, KO will sometimes get powdery mildew. The disease is disfiguring but not harmful. However, if you feel the need to eradicate it, spray plants with a mixture of horticultural (not dormant) oil and water.

### I was surprised to learn that Knock Out™ is just one of your many rose introductions. Tell us about some of your other varieties.

Besides the first KO, 'Radrazz', which is bright cherry red, I've introduced 'Radyod', a pale pink variety; 'Radcon,' a medium pink variety; and 'Radtko', trademarked as Double Knock Out™. It has the same cherry color as the original, but with more petals.

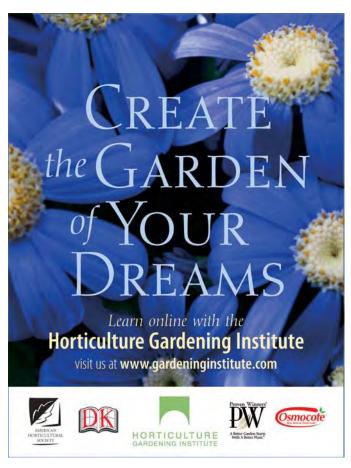
There is also Carefree Sunshine ('Radsun'), a low-growing, wide-spreading yellow rose, and its Climbing Carefree cousin, 'Radsunsar'. Ramblin' Red ('Radramblin') is a winter-hardy climber with crimson-red flowers. In 2005, I brought out a mutation of 'Autumn Sunset' called Lemon Meringue ('Wekradler').

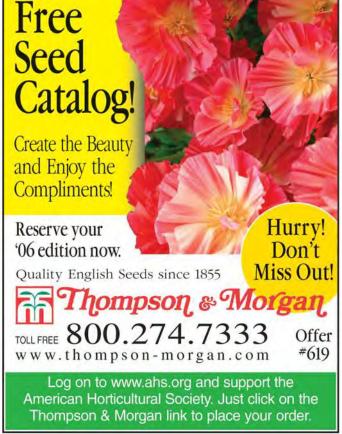
This year, I introduced Brite Eyes ('Radbrite'). Its flowers are pink with yellow centers, and it's suitable for smaller gardens. It's a restrained climber that can also be grown as a freestanding upright shrub.

### What a lineup! So, what's next?

I'm working on midge resistance, and I expect future introductions to be largely immune to this nearly invisible insect. The midge doesn't kill roses but can greatly reduce their bloom time and lead to misshapen flowers. I'm also working on improving rose characteristics-fragrance, color, hardiness, and form—in that order.

Lynda DeWitt is a freelance writer living in Bethesda, Maryland.





### **GARDENER'S NOTEBOOK**

### Horticultural News and Research Important to American Gardeners

### MALIGNED MULCH

Following last year's series of hurricanes that devastated the Gulf Coast, a widelycirculated e-mail raised concern that mulch made from tree debris there—and sold at major retail stores across the coun-



Formosan termites are common in the subtropical Gulf Coast states but not in other parts of the country.

try-might be infested with Formosan termites. These subterranean pests are extremely destructive in Louisiana, Texas, and other Gulf states. The e-mail caused widespread anxiety, but many experts quickly stepped forward to reassure gardeners that their fears about purchasing mulch were unwarranted.

The state of Louisiana imposed a quarantine on wood debris from hurricane-affected areas in October 2005, and the regulation is being strictly enforced. Even if such debris were to be shredded, packaged, and shipped as mulch, it's unlikely that any Formosan termites in the wood would survive the process. And much of the United States is too cold in winter to sustain colonies of the tropical pest, which is native to southeast Asia. Most large retailers, including those alluded to in the email, buy only products that meet the standards set out by the Mulch and Soil Council, including a prohibition on the use of recycled lumber.

Fortunately, the information cam-

paign seems to be working, according to staff at the Louisiana State University (LSU) Agriculture Center. "Calls from consumers have slowed way down," says Dennis Ring of the LSU Department of Entomology.

The best way to ensure your mulch is pest-free is to purchase it from a reliable local source and use it quickly. If you live in an area affected by Formosan termites, you can learn more about identifying and controlling these pests at www.agctr. lsu.edu/termites.

### HOT SUNDROPS AND ELEGANT EVENING PRIMROSES

Sundrops and evening primroses "shine in gardens, roadsides, and native landscapes, where they provide an abundance of midsummer color," writes Richard Hawke, plant evaluation manager at the Chicago Botanic Garden, in a recent issue (#26) of Plant Evaluation Notes. The publication describes the results of a five-year trial of 19 Oenothera species and cultivars, which evaluated these perennials for "ornamental traits, disease and pest resistance, cultural adaptability, and hardiness."

Out of the 16 taxa that survived to the end of the trial, Oenothera fruticosa 'Fyrverkeri' (Fireworks) and O. speciosa 'Siskiyou' received the highest ratings for their profuse floral display, overall health,



'Fyrverkeri' sundrop is a profuse bloomer.

and winter hardiness. Other top-performers included O. acaulis 'Aurea', O. fremontii 'Lemon Silver', O. macrocarpa, and O. pilosella.

Hawke also noted that "Oenothera speciosa may spread rapidly to become weedy in rich or highly fertile soils." Of the four cultivars of O. speciosa in the trial, 'Pink Petticoats' was judged "by far the most vigorous."

Copies of Plant Evaluation Notes are available for \$3 from the Plant Evaluation Program, Chicago Botanic Garden, 1000 Lake Cook Road, Glencoe, IL 60022. Evaluation information also is available online at www.eplants.org.

### PEST PREDICTIONS

Extreme and unusual weather conditions of all kinds have been apparent recently throughout the United States. Last year's spectacular storms and lingering



Japanese beetles could be in for a banner season this year as a result of a dry winter.

drought, and the warm winter—the fifth-mildest on record, according to the National Climatic Data Center, with the mean temperature above average in 41 states-will have a big impact on the pests and diseases gardeners will be battling in the months ahead.

In the mid-Atlantic region, a mild winter and a fairly dry start to 2006 might mean an abundance of insects, especially Japanese beetles, predicts Adria Bordas, a Cooperative Extension agent in Fairfax County, Virginia.

In Texas, drought and high temperatures have brought about a difficult environment for woody plants, making them more susceptible to some pests. "Wood-boring beetles are attracted to stressed trees and shrubs," says Molly Keck, IPM program specialist at Texas Cooperative Extension in San Antonio. "Gardeners should keep a close eye out for signs of these pests, such as holes in tree trunks and branches, or adult insects or larvae under the bark."

But even after drought abates, problems can occur. According to University of Kentucky Extension Plant Pathologist John Hartman, the end of a drought can kill woody plants that have sacrificed surface roots during the dry period, as deeper roots could be more susceptible to root rot diseases. Drought-stressed herbaceous plants could be more susceptible to cankers and root, corm, or bulb rot diseases, he adds.

After a cool, wet winter in the Pacific Northwest, Japanese maples and other

### PEOPLE and PLACES in the NEWS

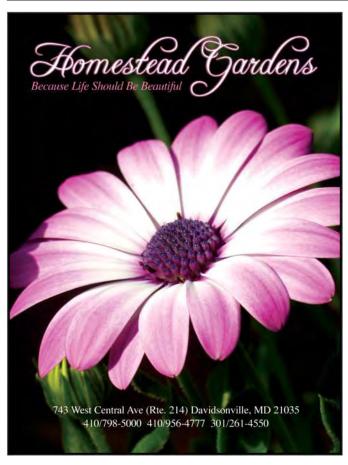
**New Executive Director for California Native Plant Society** 



Amanda Jorgenson was recently named the new executive director of the California Native Plant Society (CNPS) based in Sacramento, California. Jorgenson comes to CNPS with over five years of executive experience and 15 years of experience in design and implementation of conservation programs. Prior to CNPS, she served as the Wildlife Conservation Society's Country Program Coordinator in Ecuador. Jorgenson has also worked for Fundación Natura in Colombia, Tropical Research and Development, Inc., in Florida, and World Wildlife Fund–U.S. in Washington, D.C.

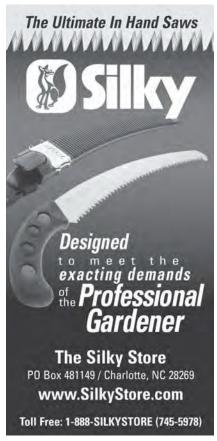
### **New Director for Longwood Gardens**

Paul B. Redman, since 1997 the executive director of the Franklin Park Conservatory in Columbus, Ohio, will become the executive director of Longwood Gardens in Kennett Square, Pennsylvania, in July. "I am honored to be chosen to lead such a world-class organization like Longwood and look forward to working with its very talented staff," says Redman. "It is an exciting time as Longwood is celebrating its centennial this year—what a privilege it is to embark on the next 100 years with this exquisite garden." Redman succeeds Fred Roberts, who is retiring after serving as executive director at Longwood for more than 20 years.









woody plants are showing some injury related to fungal diseases, says Chip Bubl of Oregon State University near Portland. But there just might be a silver lining in the form of a reduced slug population, he speculates.

To help combat plant disease problems, Janna Beckerman of Purdue University's Department of Botany and Plant Pathology suggests thinking in terms of a "disease triangle" comprising a susceptible host, a virulent pathogen, and a conducive environment. You can reduce or even eliminate some diseases, she says, by taking out one leg of the triangle. For example, use disease-resistant varieties in your garden to eliminate susceptible hosts. Remove any diseased plant parts to eliminate the pathogen. And avoid creating a favorable environment by over- or under-watering your garden, crowding plants together, or planting inappropriate varieties.

### RAIN GARDENS STORM KANSAS CITY

In cities across the United States, rain gardens have been gaining momentum as a strategy for reducing polluted stormwater run-off and improving water quality. Perhaps the most ambitious effort yet is the newly launched initiative in Kansas City, Missouri, dubbed "10,000 Rain Gardens." As its name implies, the goal is to create 10,000 rain gardens around the city within five years.

"The 10,000 Rain Gardens initiative is about educating the public and changing behaviors so more people are aware of how they contribute to the [run-off] problem, and more importantly, how they can be part of the solution," says Lynn Hinkle, project manager for 10,000 Rain Gardens. "Every rain drop that is retained where it falls—in a rain garden,



Participants in the 10,000 Rain Gardens initiative review plans for their rain garden.

for example—will benefit the water quality of our city's streams and rivers."

Rain gardens consist of a shallow basin designed to retain water and drain it back into the earth within a day. They are often planted with native grasses, perennials, shrubs, and trees that can tolerate both wet and dry conditions. For more information about the 10,000 Rain Gardens initiative, visit www.rainkc.com.

### NOT JUST ANOTHER PRETTY PLANT

Grown mostly for their showy purple berries, Callicarpa americana and C. japonica (American and Japanese beautyberry) haven't been noted for their foliage. At least, not until researchers at the U.S. Department of Agriculture's Agricultural Research Service (ARS) isolated a compound from their leaves that in early testing appears to be an effective mosquito repellent.



The leaves of the American beautyberry (Callicarpa americana) may have insectrepelling properties.

The researchers took a hint from a bit of folk wisdom. Charles T. Bryson, a botanist at an ARS facility in Oxford, Mississippi, learned from his grandfather that the leaves of American beautyberry would repel biting insects from animals. Farmers in northeastern Mississippi would crush leaves and put them under draught animals' harnesses, or even use them on their own skin.

Bryson's recollections led his Oxford colleagues Charles Cantrell, a chemist, and Stephen Duke, a plant physiologist, and Jerome Klun at ARS's Chemicals Affecting Insect Behavior Laboratory in Beltsville, Maryland, to isolate and test five insect-repelling compounds from the plants. The most promising is callicarpenal, for which the USDA has a patent pending. Future research will focus on producing large quantities of the compound, either in the field or synthetically, and identifying any possible toxicity to humans.

### RECORD-BREAKING BIRD COUNT

Many gardeners select plants and other garden features to attract birds. Sharing the results of these efforts can help scientists track trends in bird populations through the annual Great Backyard Bird Count (GBBC). Participants throughout the country logged data for the ninth annual GBBC, which took place February 17 to 20, 2006. In backyard gardens, parks, and wildlife refuges, bird watchers of all levels of experience counted 7.5 million birds, with a record-breaking 623 species represented.

Coordinated by the Cornell Lab of Ornithology and National Audubon Society, the annual GBBC records the number and species of birds seen over a four-day period across North America. Recording can be done as frequently as participants



In the recent bird count, tree swallows were found in almost twice as many states as in the previous count five years ago.

wish—once or several times a day, one day or more, at one or more locations. This year, participants sent in more than 60,000 checklists, providing an unprecedented amount of information.

"With more people watching birds, together we discovered amazing things," says Paul Green, Audubon's director of citizen science. "In some places, observers described flocks of robins so large their combined calls were louder than jetliners, and good seed crops in northwest Canada caused several species of seedeaters to remain in sub-zero northern Canada rather than move to warmer areas further south."

Migratory patterns also seemed to be affected by the unusually warm winter. Some swallow and warbler species stayed farther north than they usually do. Tree swallows, which can eat bayberry (Myrica pennsylvanica) fruit during the winter, were seen in 20 states, up from 11 in 2001, and sightings of orange-crowned warblers, some of which were eating suet and nectar from feeders, were up 50 percent from 2005. Total counts of these birds were up 96 percent in Washington state, but down to less than half their 2005 totals in Texas, Louisiana, and Mississippi.

For more information about the GBBC and other citizen science projects involving bird counts, visit www.bird source.org/gbbc.

Written by Assistant Editor Viveka Neveln and Editorial Intern Linda McIntyre.



herry Lake Tree ✓ Farm is pleased to announce its corporate partnership with the American Horticultural Society and is committed to helping fulfill the AHS mission by promoting the importance of large trees in the landscape.



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Photographs by Don Walker Text by Steve Brigham

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### AN APPRECIATION

### Christopher Lloyd (March 2, 1922–January 27, 2006)

by Thomas C. Cooper

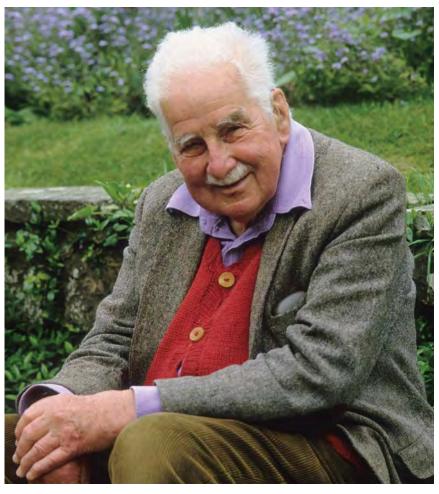
FFORT," plantsman Christopher Lloyd once wrote, "is only troublesome when you are bored." And he was very rarely bored. Lloyd, who died earlier this year at 83, spent a lifetime arguing, in words and in deeds, that gardens are exciting, dynamic environments and that gardening is a stimulating world of ideas, opinions, and friends.

For almost 50 years he carried on a conversation with gardeners throughout Britain, reporting on his successes and failures, chiding readers for their complacency, cheering them for their adventures, trying out ideas, always stirring the pot. Gardeners who visited his garden and read his writings argued back, shared their opinions, became friends.

The gardens at world-renowned Great Dixter in southeastern England, which he inherited from his parents, were for 42 years the wellspring of his weekly columns and monthly articles for British publications and 27 books that have influenced gardens around the world.

### THE FUTURE OF GREAT DIXTER

To secure the future of Great Dixter as a vibrant place for adventurous gardening, Lloyd established the Great Dixter Trust to oversee the operation of the gardens, which will continue to evolve under the direction of Fergus Garrett, his close friend and head gardener. The Trust needs to raise about \$2 million to purchase the outstanding portion of the estate. For more information, visit www.greatdixter.co.uk and click on the "Friends" link.



At Great Dixter, the gardens are framed by formal architectural yew hedges, but the plantings inside them are anything but formal or predictable. Wellconsidered, absolutely. Impeccably tended, to be sure. But Christopher wove plants together in a relaxed fashion that made his five-acre garden personal, even intimate. He mingled all sorts of plants and colors in order to achieve the most natural and long-lasting show. This he learned from his mother, Daisy, who practiced "the art of letting plants enjoy themselves," as he described it.

Christopher disliked pretense and was low-key about the depth of his knowledge (though he was unabashedly proud of his

plantings). Once, after visiting the Chelsea Flower Show in London, I confessed to him that it was unnerving to see so many unfamiliar plants. "Oh," he replied, "never worry about that. I'm always meeting new plants—that's the fun of gardening." It was a generous, reassuring reply to a young, overwhelmed gardener.

It was also, I realized in time, a white lie. The more time I spent with him—in England, South Africa, and in this country the clearer it became that he knew or had grown most everything that had ever been cataloged. Once, while we were touring Logee's Greenhouses in Connecticut, he admired an elaborately leafed begonia that appeared unfamiliar to him. After being



Lloyd's exotic garden at Great Dixter features hot colors that brighten a gray English day.

told its name, he paused and then said, "Oh yes, I remember it. We grew that in the glasshouses at Wye [College, where he studied and taught horticulture] back in the '50s." That didn't diminish his excite-

ment for a moment. He was endlessly curious, and the most common or familiar plant could always stimulate an observation and very likely a planting idea.

Above all, he enjoyed seeing plants in the wild. He would travel anywhere—so long as there was a drink and a bath at day's end—to see a plant in its natural setting. He had an uncanny ability to spot an interesting plant while traveling at 65 miles an hour, and he prized drivers who thought nothing of pulling over for a look. He loved roadside reconnaissance, studying the ferns in a Washington State road cut, observing how quickly trees invaded neglected Vermont meadows, or calling attention to the psychedelically-colored daisies on a fallowed field in South Africa.

In *The Adventurous Gardener*, he wrote, "In gardening you can never say, 'by now I know all I need to,' and I hope you'll never feel 'I'm too old to learn new tricks." Lloyd always had his eyes and ears open to new tricks. They might involve work, but that was part of the fun of it all.

Formerly editor of Horticulture magazine, Thomas C. Cooper lives in Connecticut.

### Further Reading

Here is a sampling of the many books Christopher Lloyd wrote.

Christopher Lloyd's Garden Flowers: Perennials, Bulbs, Grasses, Ferns. Timber Press. 2000.

**Christopher Lloyd's Gardening Year.** Frances Lincoln, 1999.

**Color for Adventurous Gardeners.** Firefly Books, 2001.

**Dear Friend and Gardener.** Trafalgar Square Publishing, 1998.

In My Garden. Macmillan, 1995.

**Succession Planting for Year-Round Pleasure.** Timber Press, 2005.

**The Well-Tempered Garden.** Collins, 1970.





### Sun Protection for Gardeners

by Rita Pelczar

ARDENERS ARE weather-conscious folks. After all, we gauge many of our activities on temperatures, I rainfall, and sunshine. Blue skies and sunny days naturally draw us outdoors to set out those new plants, dig a new bed, or just sit back and relax. But that attraction can be dangerous. Because we spend so much of our time outside, it makes sense to protect ourselves from the damaging effects of solar radiation.

According to the American Academy of Dermatology, 90 percent of skin cancers are linked to exposure to the sun, as are premature aging and cataracts. It's the invisible ultraviolet (UV) rays of the sun that are the culprit and they come in two types: UVA rays penetrate deeply into the skin and cause the visible skin changes associated with aging; UVB rays affect surface layers of the skin and cause sunburn. And UV damage is cumulative, so even when the sunburn fades there are lasting effects.

The best ways to minimize sun damage are to limit the time you spend outside when the UV rays are strongest; and, when you are outside, to wear sunscreen and appropriate clothing.

### SUNSCREENS GUARD BARE SKIN

Every sunscreen is rated according to its "sun protection factor" (SPF), which is primarily a measurement of its protection from sunburn-causing UVB rays. The higher the SPF, the greater the pro-

tection. When properly applied, the SPF number indicates how many times longer you can stay in the sun before you burn. So if you usually begin to burn after 10 minutes in the sun, an SPF 15 sunscreen theoretically allows you to extend your exposure to 150 minutes.

Some sunscreens include ingredients that screen UVA rays as well as UVB rays, but at this time, there is no approved rating system for UVA protection. Nevertheless, it's advisable to use a broad-spectrum formula that covers both types of UV rays. If you are prone to allergic reactions, use a PABA-free, hypoallergenic formula.

Correct and continuous application of a sunscreen is critical if it is to be effective. Apply it liberally to all exposed skin 20 to 30 minutes before going outside so it has time to absorb into your skin. Don't forget your ears and neck. Reapply every two hours—more often if you are perspiring heavily.

Of course, the actual protection provided by a sunscreen depends on a number of variables, including time of day, proximity to the equator, altitude, and degree of cloud cover.

The National Weather Service issues a daily forecast of UV intensity that is included in local weather reports. You can obtain your UV index for the day from the Environmental Protection Agency at www.epa.gov/sunwise/uvindex.html by typing in your zip code. A UV index number of four or lower is considered low or minimal; five to six-moderate; seven to nine—high; and 10 or above very high. When possible, schedule your gardening chores for early in the morning or after 4 p.m. when the sun's intensity is much lower, particularly when the UV index is five or above. It's usually cooler and more pleasant to garden then, anyway.

A number of drugs can increase sensitivity to the sun's rays. Certain antibiotics, birth control pills, antidepressants, and antihistamines can increase the risk of sunburn or skin rashes. Consult your doc-

### **SUN-SENSIBLE ADVICE**

To protect yourself from the hazards of UV exposure, the Environmental Protection Agency offers these tips:

- Limit the time spent in the midday sun (between 10 a.m. and 4 p.m.).
- Apply a broad spectrum sunscreen rated SPF 15 or higher.
- Wear loose-fitting, sun-protective clothing, including a broad-brimmed hat.
- Wear sunglasses with 99 to 100 percent UVA and UVB protection.



tor or pharmacist about any medication you take with respect to sun exposure.

### **CLOTHING THAT BLOCKS UV RAYS**

Covering up with loose-fitting, longsleeved shirts, long pants, and broadbrimmed hats is a good way to limit UV exposure. But not all fabrics are equal—a bleached cotton T-shirt provides minimal protection—typically SPF 3 to 5—while denim blue jeans offer significant protection. Tightly woven fabrics are generally better than knits. The dyes used to color dark fabrics help absorb UV rays, making them more protective than light-colored fabrics. Other good UV-blocking fabrics include 100 percent polyester, shiny polyester blends, silk with a satin finish, and unbleached cotton. But some of these may be uncomfortably hot.

Clothes designed to shield wearers from UV rays are now available. They are typically made of tightly woven fabrics treated with a UV protective finish. Sunscreening clothes are either rated with the same SPF system as sunscreens or are given a similar "Ultraviolet Protective Factor" (UPF) rating which measures how much of the UV radiation is absorbed by the fabric. A minimum of UPF 15 is suggested by The American Cancer Society. UPF 15 to 24 is considered good; 25 to 39 very good; and UPF 40 to 50 excellent.

Solumbra is a line of sun-protective wear from Sun Precautions® that includes long-sleeved, lightweight shirts,



The Solumbra line of clothing from Sun Precautions protects from head to toe.

### Sources

**Rit SunGuard,** Indianapolis, IN. www.sunguardsunprotection.com.

**Solar Eclipse,** Scottsdale, AZ. *www.solareclipse.com.* 

**Sun Clothing, Etc.,** Fredericksburg, VA. *www.sunclothingetc.com.* 

**Sun Precautions,** Everett, WA. *www.sunprecautions.com.* 

Sun Solutions Clothing,

North Falmouth, MA. www.sunsolutionsclothing.com.

**Wallaroo Hat Company,** Boulder, CO. *www.wallaroohats.com.* 

pants, and broad-brimmed hats. Because clothing that limits exposure to UV rays is considered a medical device, it is regulated by the Food and Drug Administration (FDA). Sun Precautions has received FDA approval to market its Solumbra line for sun protection with a rating of SPF 30+.

The Wallaroo Hat Company offers vented and non-vented UPF 50+ head toppers in a variety of attractive styles and colors. A minimum three-to four-inch brim is advisable to help shade your face, ears, and neck. (For more sources of solar protective gear, see source list above.)

For an inexpensive way to boost the sun-screening quality of your clothes, treat them with Rit® SunGuard™, a widely available colorless dye that you add to your laundry to increase the UPF rating to 30. One package treats a load of laundry. It works well for cotton, linen, rayon, and silk, and lasts for more than 20 washings. It has received the Skin Cancer Foundation's Seal of Recommendation.

So go ahead and make hay while the sun shines—plant some seeds and pull some weeds; just take the necessary precautions to protect yourself from those dangerous UV rays.

Rita Pelczar is contributing editor for The American Gardener.

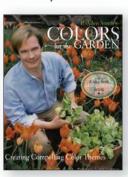


## **BOOK REVIEWS**

### Recommendations for Your Gardening Library

P. Allen Smith's Colors for the Garden: Creating Compelling Color Themes Clarkson Potter, New York, New York, 2006. 192 pages. Publisher's price, hardcover: \$32.50.

PLANTS SUCH AS annuals, perennials, grasses, shrubs, and tropicals add both color and texture to the garden. However, not many references focus on the colors



and how to use them effectively in home garden design—something that P. Allen Smith's latest book, Colors for the Garden, aims to do through a blend of practi-

cal commentary, detailed plant lists, and vibrant color photographs.

In the first two sections of the book, Smith addresses choosing colors and how to use them creatively. Here you will get some straightforward ideas on how to use various plants within color themes, how to mix and match colors, and suggestions on specific plants to design with.

Smith suggests several helpful activities in these first two sections—for example, taking photographs of the outside of your home and garden. "By framing the view through the lens and in pictures, the shapes of plants, buildings, and objects become more apparent," he writes. "Use the photographs to create or improve the garden settings around your home."

The third section of the book, titled "Color Expressions," describes plant colors in detail. Here you will find many of the common and not-so-common varieties of plants arranged in color sequence. The directory includes a short description, a few facts including height, sun or shade tolerance, and winter hardiness (if perennial). This section is especially use-

ful when you need color clarification on a plant you are not familiar with.

With so many flowers and colors available, you might ask, "Which ones should I use?" Follow the color design principles within the book to make them blend, but the colors to start with, as Smith suggests, are the ones you love best. —*Jim Nau* 

Jim Nau is the manager of the Gardens at Ball, the Ball Horticultural Company's newly renovated display and evaluation garden in West Chicago, Illinois.

### Gardens by Design

Noel Kingsbury, photography by Nicola Browne. Timber Press, Portland, Oregon, 2005. 224 pages. Publisher's price, hard-cover: \$34.95.

### **Planting Design:**

### Gardens in Time and Space

Piet Oudolf and Noel Kingsbury. Timber Press, Portland, Oregon, 2005. 176 pages. Publisher's price, hardcover: \$34.95.

AS A REFRESHING and illuminating change from the usual garden design book which is the voice and vision of just one person, Noel Kingsbury's *Gardens by De-*



sign has tips, insight, and wisdom from some of the most respected and creative garden designers in the English-speaking world. Gener-

ously illustrated with superb photographs by Nicola Browne, the book is divided into sections that cover the usual topics: Planning, furnishing, and planting the garden. Within that structure, Kingsbury lets each designer speak, sharing his or her thoughts.

A few examples include Vermontbased designer Julie Moir Messervy, who states that a garden path should be viewed as a journey that, "alters the psyche, refreshes the soul, and reinvigorates the senses." An analysis of Piet Oudolf's garden in the Netherlands shows the reader how a traditional formal design can be given a modern twist by creating what Kingsbury calls "zigzag symmetry."

Alternative plans for a long, narrow garden space and a boring square lot, along with detailed explanations of the thought process that went into the design, highlight the chapter focusing on the work of Jill Billington, who is renowned for her creative designs for awkwardly shaped London gardens. Beth Chatto discusses the importance of choosing plants that are naturally adapted to the soil and light conditions of your particular garden, and Carol Klein shares insights into combining flower color, with recommendations for choices in cooler northern climes, hot southern regions, and for different seasons.

In contrast, *Planting Design: Gardens in Time and Space*, which Kingsbury co-authored with the internationally renowned Dutch designer Piet Oudolf, is more a trea-



tise on their philosophy and practice of designing with plants. The focus of the book is blurred, sometimes giving advice to designers of large-scale pro-

jects for corporations or city parks, and at others addressing the home landscape designer. It is not a book for beginners; plants are called by their Latin names only, and the authors assume the reader already has a strong foundation in the subject.

Having said that, the book is excellent as an advanced course in Oudolf's "New Wave" planting movement that advocates choosing plants that are in harmony with the surrounding landscape, are

well adapted to the native soil and growing conditions, and that will develop beautifully over time. The authors want to encourage landscape architects and garden designers "to put the focus back on the art of planting."

—Čatriona Tudor Erler

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

**Cultivating Words: The Guide to Writing** about the Plants and Gardens You Love Paula Panich. Tryphon Press, Northampton, Massachusetts, 2005. 129 pages. Publisher's price, softcover: \$21.95.

PAULA PANICH has written the first and only book describing writing about plants and gardens. A practical guide to everything from sentence creation to publishing

Cultivating Words

how-tos, this book is an inspiration for all to put down spade and take up pad and pencil or face off with a word processor.

Panich, with an M.F.A. and two decades of

journalism and garden writing experience, takes the novice writer and plant lover through the creation of their first published pieces, whether in garden club newsletters, local newspapers, or magazines. She describes the types of stories a garden writer can create, such as the practical how-to piece, or the feature story where writers might borrow some techniques from fiction writing. There are also sections on garden-related travel writing and the writer as storyteller.

The book describes how to begin an article with a well crafted "lead", and how to structure it, title the piece, and summarize or quote information. There is useful advice on word usage, botanical nomenclature, and writing for clarity with a chapter on self editing and revision well titled, "Pruning and Patience: On Editing and Revision."

The major points are reinforced with writing samples from the author, wellknown garden writers, and wonderful writers from aligned genres such as Vita Sackville-West, M.F.K. Fisher, John McPhee, and Diane Ackerman.

Many of today's professional garden writers loved plants first, and then learned how to write about them. All would have benefited from having this guide at the beginning of their careers.

—Darrell Trout

Darrell Trout is a writer, lecturer, and director of the Garden Writers Association. His fourth book is First Garden: Getting Started in Northeast Gardening.

The manicured, verdant lawn is a staple of American iconography. How did this come to be when our climate is so variable and yet so generally inhospitable to large swaths of sheared grass? Gardeners, often more resistant than most to the se-

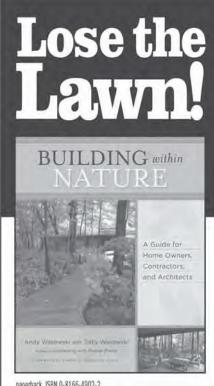


ductive charms of the perfect lawn, can find out what others find so alluring in American Green (publishing info??). History professor Ted Steinberg charts the rise of lawn culture in the wake of World War II, as "booms" in having babies, building houses, and using chemicals combined with social forces encouraging conformity and aspirations toward perfection to create a "perfect storm" of lawn care mania.

Despite his academic background, Steinberg has an accessible and engaging style, and while he raises a lot of serious questions about the impact of lawn culture on the environment (and a few somewhat less serious ones about

its impact on homeowners' time and self-esteem), he leaves room for hope that more Americans may yet embrace a more relaxed aesthetic that allows for a wider plant palette, a bit of brown in the winter, and even a weed here and there.

—Linda McIntyre, Editorial Intern

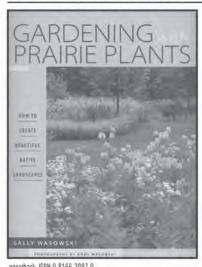


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### **GARDENER'S BOOKS**

### Regional Gardening

MERICAN GARDENS do not lend themselves to generalizations. Average temperature, moisture, and soil quality vary tremendously from region to region within the United States, and sometimes within regions as well. Every gardener needs a few comprehensive reference books, but sometimes you want an in-depth guide to dealing with conditions in your own region and selecting plants that will thrive. Here are some books to help you plan, start, or enhance your garden wherever you are.

Since I began gardening in the mid-Atlantic region in the early 1990s, I've struggled with drought, hurricanes, drying winds, hu-



midity, and damage from swarms of 17-year cicadas. So I was not surprised to be drawn to the *Mid-Atlantic Top 10 Garden Guide* (Sunset, 2006, \$19.95), with its comprehensive listing of plants sturdy enough to take whatever our variable climate dishes out. Well-known experts—including Brent and Becky Heath of Brent and Becky's Bulbs, Holly Shimizu of the U.S. Botanic Garden, and *The American Gardener's* own

contributing editor Rita Pelczar and contributing writer Carole Ottesen—provide concise, straightforward advice with enough opinion to keep things interesting.

Southerners contemplating starting a garden will find lots of helpful and accessible information in *How to Get Started in Southern Gardening* by Nellie Neal with Rob Proctor (Cool Springs Press, 2005, \$19.99). The introduction, by Proctor,



grounds the reader in the basics of gardening—botanical nomenclature, tools, and maintenance tips—while the rest of the book, by Neal, digs deeper, starting with a very good discussion of soil amendment. She goes on to discuss design elements such as hardscape and lighting, and provides a list of 50 plants that are easy to grow in USDA zones 7, 8, and 9. Pests and diseases are covered too, in the same enthusiastic yet down-

to-earth tone that characterizes the whole book. It also includes a handy list of mail-order resources sources, garden information and extension websites, and suggested reading for those who have built up enough confidence to move on to more daunting volumes.

Midwest Home Landscaping (Creative Homeowner, 2006, \$19.95) covers a lot of ground, both literally and figuratively. It aims to help gardeners from southern Canada to Missouri, from the Dakotas to Ohio, to design beds and borders, choose and care for plants, and install hardscape, fencing, and other garden fea-

tures. This information-packed book features a variety of planting designs for all parts of your property, with photos, vivid illus-



trations, and detailed schematic drawings that reflect the design vernacular of the Midwest. The planting advice is sound, as one would expect from veteran garden writers Roger Holmes and Rita Buchanan, with good information on choosing healthy plants, planting basics, pruning, and winter protection. There's also a list of dependable plants with an

emphasis on selections with at least two seasons of interest.

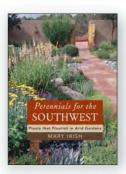
Gardeners in northern California might not enjoy quite the range of climatic vicissitudes as their Midwestern brethren, but with coastal, valley, and mountainous climate zones, garden writer Katherine Grace Endicott has plenty to talk about in *Northern California Gardening* (2006, Chronicle Books,



\$24.95). This is a month-by-month guide with a wealth of horticultural information that will benefit new and experienced gardeners alike. For each month, Endicott lists key tasks for gardeners in each climate zone—what to plant, prune or harvest; how to keep down pests and diseases; and tips on keeping plants well-watered during dry periods. There's plenty of information for

gardeners outside northern California as well, such as which "old rules" (such as "buy the largest plant you can") to ignore, how to reach an accommodation with deer, and excellent cultural information for houseplants and plants widely grown in other regions.

*Perennials for the Southwest* (Timber Press, 2006, \$29.95) would look at home on your coffee table. But beneath its beautiful cover and sophisticated graphics lies a workhorse of



a book written by Mary Irish, an authority on dry-climate gardening. She starts with a detailed discussion of design principles suited to gardens in the arid southwest. The section on plant care covers soil, pruning, pests and diseases, and propagation in a thorough yet straightforward manner, and the plant list provides tips on use in the landscape as well as abundant cultural information. For southwestern gar-

deners, this book is indispensable; for the rest of us, it's a vacation to a beautiful and exotic landscape.

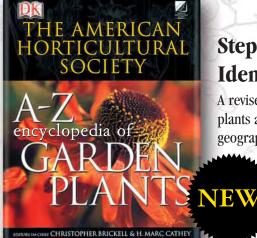
—Linda McIntyre, Editorial Intern





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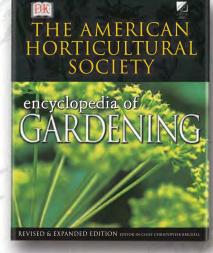
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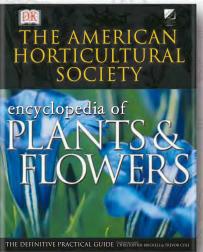
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### Horticultural Events from Around the Country

#### **NORTHEAST**

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

JUNE 2-4. Annual Native Plant Sale. Massachusetts Audubon Society Pleasant Valley Sanctuary. Lenox, Massachusetts. (413) 637-0320. www.massaudubon.org.

JUNE 3. Annual Plant Sale. Marrett House. Standish, Maine. (207) 384-2454.

JUNE 3. HerbFest 2006. Connecticut Herb Association. Coventry, Connecticut. (860) 742-8239. www.topmostherbfarm.com.

JUNE 5-8. 2006 Northeast Regional Master Gardener Conference. Newport, Rhode Island. (401) 874-2929. www.passionfor gardening.com.

JUNE 10. Annual Plant Sale. Garden in the Woods. Framingham, Massachusetts. (508) 877-7630. www.newenglandwildflower.org.

JUNE 10 & 11. Garden Weekend. Old Sturbridge Village. Sturbridge, Massachusetts. (800) 733-1830. www.osv.org.

**RAP** JUNE 17. Summer Solstice Celebration. Polly Hill Arboretum. West Tisbury, Massachusetts. (508) 693-9426. www.pollyhill arboretum.org.

JUNE 23-25. Newport Flower Show. Newport, Rhode Island. (401) 847-1000 ext. 140. www.NewportFlowerShow.org.

JUNE 24. Herb and Flower Festival. Master Gardeners of Cornell Cooperative Extension. Parker Scripture Botanical Gardens. Oriskany, New York. (315) 736-3394 ext. 125.

JUNE 27-29. Northeast Symposium on Native Plant Education, Conservation and Gardening. Oswego County Board of Cooperative Educational Services. Mexico, New York. (315) 470-6817. www.esf.edu/outreach/ nativeplants/program.htm

#### Looking ahead

JULY 8. Hidden Treasures of the Berkshires. Annual tour. Lenox Garden Club. Lenox, Massachusetts. (413) 298-5225.

JULY 9. Connecticut Historic Gardens Day. Woodstock, Connecticut. (860) 928-4074. www.historicnewengland.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 ww.ahs.org/events/reciprocal\_events.htm.

#### MID-ATLANTIC

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

RAP MAY 19. Clematis Connections. Lec-

tures and sales. Green Spring Gardens. Alexandria, Virginia. (703) 642-5173. www.greenspring.org.

**RAP** MAY 19. Creating Native Landscapes by Design. Spring Garden Symposium. Adkins Arboretum. Ridgely, Maryland. (410) 634-2847 ext. 0. www.adkins arboretum.org.

RAP MAY 20. Birdathon. Guided tours. Tyler Arboretum. Media, Pennsylvania. (610) 566-9134. www.tylerarboretum.org.

MAY 20. Members' Plant Exchange and Sale. Scott Arboretum. Swarthmore, Pennsylvania. (610) 328-8025. www.scottarboretum.org.

MAY 25. Green Design: Rooftop Gardens for a Sustainable City. Tour and discussion. Unit-

### Exploring Specialty Fruit in Kentucky

NEW AND UNUSUAL varieties of fruit at specialty stores and farmers' markets are a relatively recent phenomenon, but the North American Fruit Explorers (NAFEX) have been seeking out, growing, and eating exceptional fruit since the mid-1960s. The

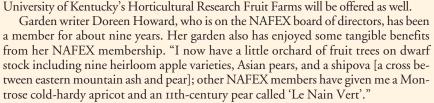
group, a network of professional and amateur fruit growers devoted to the discovery, cultivation, and appreciation of fine fruits and nuts, will hold its annual meeting August 30 to September 1 in Lexington, Kentucky.

The event will include workshops on novel varieties for the home grower, bagging fruits for chemical-free pest control, growing fruit in small

spaces, winemaking, fruit breeding, and other topics. The roster of speakers includes "Apple Wizard" Gene Yale, who grows over 100 trees in his Skokie, Illi-

An apple-tasting event was part of last year's annual meeting.

nois, backyard. Tours of private orchards and the



For more information about NAFEX and its annual meeting, visit www.nafex.org.

—Linda McIntyre, Editorial Intern



ed States Botanic Garden. Washington, DC. (202) 225-8333. www.usbg.gov.

JUNE 1. **Native Plants in the Landscape.** Conference and workshops. Millersville University. Millersville, Pennsylvania. (717) 872-3030. www.millersvillenativeplants.org.

JUNE 3. **Annual Garden Tour.** Reston Garden Club. Reston, Virginia. *www.restongarden club.org.* 

JUNE 9. **The Beauty of Herbs.** Lecture. Brookside Gardens. Wheaton, Maryland. (301) 962-1400. *www.brookside gardens.org.* 

**RAP** JUNE 10. Roses for Richmond: It Can Be Done! Lecture. Lewis Ginter Botanical Garden. Richmond, Virginia. (804) 262-9887. www.lewisginter.org.

**RAP** JUNE 25. **Tidewater Daylily Show** & **Plant Sale.** Norfolk Botanical Garden. Norfolk, Virginia. http://groups.hamptonroads.com/pages1.cfm?page\_id=15212.

#### SOUTHEAST

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

**RAP** MAY 20. **Perennial Plantings of Native Wildflowers.** Lecture. Marie
Selby Botanical Gardens. Sarasota, Florida.

(941) 366-5731. www.selby.org.

**RAP** JUNE 3. **Hydrangeas in the Garden.** Lecture and tour. Birmingham Botanical Gardens. Birmingham, Alabama. (205) 414-3960. *www.bbgardens.org.* 

JUNE 3. **Monroeville Summer Tour of Gardens.** Monroeville Garden Club. Monroeville, Alabama. (251) 743-4939.

**RAP** JUNE 3. Trees and Shrubs for In-Town Gardens. Lecture and walking tour. Atlanta Botanical Garden. Atlanta, Georgia. (404) 876-5859. www.atlantabotanicalgarden.org.

JUNE 17. **Community-Supported Agriculture (CSA) Workshop for Consumers.** North Carolina State University Center for Environmental Farming Systems. Goldsboro, North Carolina. (919) 513-0954. *www.cefs.ncsu.edu.* 

#### Looking ahead

JULY 19–25. **Water Gardening Symposium.** International Waterlily and Water Gardening Society. Orlando, Florida. (941) 756-0880. *www.iwgs.org.* 

#### **NORTH CENTRAL**

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

JUNE 2 & 3. **Plant Sale.** Michigan State University Department of Horticulture.

East Lansing, Michigan. (617) 355-5191. E-mail: gardens@msu.edu.

JUNE 8–10. **Herbs: Hands On!** Herb Society of America Educational Conference and Annual Meeting . (Open to public, too.) Indianapolis, Indiana. (440) 256-0514. *www.herbsociety.org.* 

JUNE 13 & 14. International Water Garden and Pond Show. Trade show. Rosemont, Illinois. (818) 316-0226. www.watergarden show.com.

#### Looking ahead

JULY 8–11. **OFA Short Course.** Greater Columbus Convention Center, Columbus, Ohio. (800) 424-5249. *www.ofa.org.* 

JULY 16. **Dearborn Garden Walk and Heritage Festival.** Chicago, Illinois. (312) 632-1241. www.dearborngardenwalk.com.

#### SOUTH CENTRAL

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

**RAP** JUNE 10. Improving Your Nature Photographs. Workshop. San Antonio Botanical Garden. San Antonio, Texas. (210) 207-3270. www.sabot.org.

**RAP** JUNE 13. Water Gardening: Plants and Fish. Workshop. Biedenharn Museum and

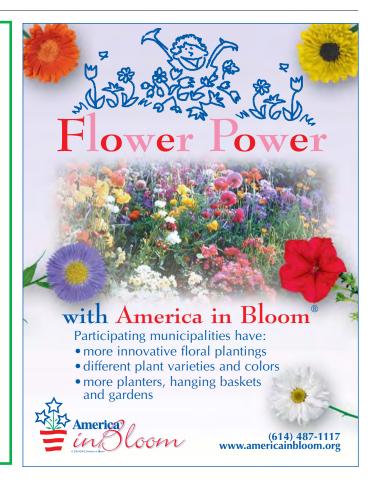


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Gardens. Monroe, Louisiana. (318) 387-5281. www.bmuseum.org.

RAP JUNE 15. Butterfly Plants Talk and Walk. Missouri Botanical Garden. St. Louis, Missouri. (314) 577-5100. www.mobot.org.

AZ, NM, CO, UT

RAP MAY 20. Landscaping with Native Plants. Lecture. Red Butte Botanical Garden. Salt Lake City, Utah. (801) 581-4747. www.redbuttegarden.org.

JUNE 10. Weird Plant Sale. Tuscon Botanical Gardens. Tuscon, Arizona. (520) 326-9686. www.tusconbotanical.org.

**RAP** JUNE 17. Plant Sale and Garden Fair. The Arboretum at Flagstaff. Flagstaff, Arizona. (928) 774-1442. www.thearb.org.

**RAP** JUNE 24. Design Inspiration for a Water-Smart Garden. Lecture with garden tours. Denver Botanic Gardens. Denver, Colorado. (720) 865-3500. www.botanic gardens.org.

#### **WEST COAST**

MAY 20 & 21. Sierra Foothills Garden Tour. Grass Valley, California. (530) 477-8013. www.sierrasoroptimist.org.

JUNE 8 & 9. Integrated Pest Management Conference. Lectures, workshops, and trade show. San Luis Obispo, California. www.calpoly.edu/~envhort/IPM\_Conf.htm. E-mail: rrice@calpoly.edu.

JUNE 10. Garden Tour. Organic gardens with rare and endangered food, medicinal and ornamental plants. Occidental Arts and Ecology Center. Occidental, California. (707) 874-1557 ext. 203. www.oaec.org.

JUNE 10 & 11. Flower, Garden and Art Festival. Mission San Juan Capistrano. San Juan Capistrano, California. (939) 234-1300 ext. 425. www.missionsjc.com.

### Looking ahead

JULY 7-9. International Orchid Fair. Santa Barbara Orchid Estate. Santa Barbara, California. (800) 553-3387. www.orchidfair.com.

#### **NORTHWEST**

AK, ID, MT, OR, WA, WY

MAY 21. Wildflower Festival and Plant Sale. Co-presented with the Native Plant Society of Oregon. Mt. Pisgah Arboretum. Eugene, Oregon. (541) 747-3817. www.efn.org/%7Emtpisgah.

### Paul Ecke Ir. Flower and Garden Show

THE PAUL ECKE JR. FLOWER AND GARDEN SHOW, the biggest flower show west of the Rocky Mountains, will take place in San Diego from June 10 to July 4 as part of the San Diego County Fair. With over four acres of exhibits and display gardens, it will feature more than 50 landscape gardens and exhibits of bonsai, non bo, and container plants.

Susi Torre-Bueno, president of the San Diego Horticultural Society (SDHS), expects that this year's displays will reflect gardening trends in southern California, such

as more use of water-thrifty plants and plants with colorful foliage. "With our mild climate, we can select plants that are attractive 12 months of the year," she says. "By choosing plants with interesting and colorful foliage, we can have a very eye-catching garden even when nothing is in bloom."

The SDHS will be giving Excellence in Horticulture Awards for the Best Youth Garden, the Best Expression of Garden Education, Accuracy in Nomenclature, Creative Use of Unusual Plant Material, and the Don and Dorothy Walker Award for Most Outstanding Exhibit. SDHS members also will provide tours of the display gardens and general gardening information to visitors.

The AHS will present an Environmental Award to the exhibit at the show that best demonstrates the connection between horticulture and en-



From the 2005 fair: A feature exhibit by Samia Rose Topiary, top, and an award-winning water garden, above.

vironmental stewardship. Other awards include the Pat Welsh Award for the garden most likely to appeal to the imagination of children.

For more information about the show, call (858) 755-1161 or visit www.sdfair.com.

—Linda McIntyre, Editorial Intern

JUNE 2-4. Dream in Color. Point Defiance Flower and Garden Show. Tacoma, Washington. (253) 305-1008. www.ptdefiance flowershow.com.

JUNE 10. Annual Picnic and Plant Auction. Meerkerk Rhododendron Gardens. Greenbank, Washington. (360) 678-1912. www.meerkerkgardens.org.

RAP JUNE 10. Favorite Trees and Shrubs of the Cheyenne Botanic Gardens. Walking tour. Chevenne Botanic Gardens. Chevenne, Wyoming. (307) 637-6459. www.botanic.org.

#### CANADA

MAY 28. Ontario Rock Garden Society Spring Flower Show. Toronto Botanical Garden. Toronto, Ontario. (416) 397-1340. www.torontobotanicalgarden.ca.

JUNE 3. Paris Horticultural Society Garden Tour and Plant Sale. Paris, Ontario. (519) 442-6495. E-mail: flwplus@execulink.com.

JUNE 13. The Nature of Perception. Lecture. Master Gardeners' Association. Van Dusen Botanical Garden. Vancouver, British Columbia. (604) 878-9821. www.vandusengarden.org. ...

### GARDEN MARKET

CLASSIFIED AD RATES: All classified advertising must be prepaid. \$2.75 per word; minimum \$66 per insertion. Copy and prepayment must be received by the 20th of the month three months prior to publication date. To place an ad, call (703) 768-5700 ext. 120.

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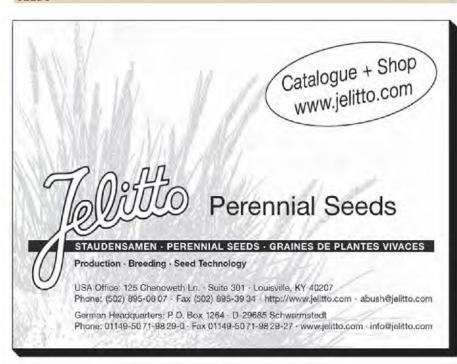
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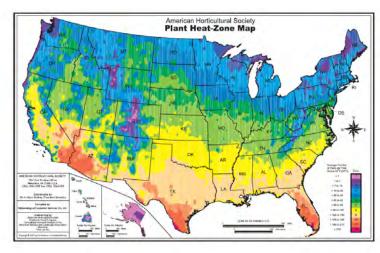


### PRONUNCIATIONS AND PLANTING ZONES

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<sup>©</sup> database, owned by Arabella Dane.



#### A-C

Acanthus mollis uh-KAN-thus MOL-lis (USDA 7-9, AHS 10-7) Asimina triloba uh-SIH-mih-nuh try-LO-buh (4–8, 9–5) Aster dumosus ASS-ter dew-MO-

sus (4-9, 9-4)

A. grandiflorus A. gran-dih-FLOR-us (5-9, 9-5)

A. laevis A. LAY-vis (4-9, 9-2) A. novae-angliae A. NO-vee-

ANG-lee-ay (3-9, 9-1)

A. shortii A. SHOR-tee-eye (4-8, 8-3)

Astilboides tabularis uh-stil-BOYdeez tab-yew-LAIR-iss (5-7, 7-5)

Celtis occidentalis SEL-tiss ahksih-den-TAL-iss (2-9, 9-1)

Cornus alternifolia KOR-nus al-turnih-FO-lee-uh (4-8, 8-1)

C. amomum C. uh-MO-mum (5-8, 8-5)

C. racemosa C. ras-eh-MO-suh (4-8, 8-3)

C. stolonifera C. sto-lon-IF-ur-uh (3-8.8-1)

Crataegus crus-galli krah-TEE-gus kroos-GAL-lee (4-7, 7-1)

**C. mollis** C. MOL-lis (3–6, 6–1) C. phaenopyrum C. fee-no-PY-rum (4-8, 8-1)

#### D-H

Darmera peltata DAR-mer-uh pel-TAY-tuh (5-8, 8-5) Dicentra eximia dy-SEN-truh eks-ZIM-ee-uh (3-8, 9-1) Diospyros virginiana dy-OS-pih-ros vir-jin-ee-AN-uh (4-9, 9-1) Diphylleia cymosa dy-FILL-ee-uh sih-MO-suh (4-8, 7-3) Eupatorium maculatum yew-puhTOR-ee-um mak-yew-LAY-tum (5-11, 9-1)

E. perfoliatum E. per-fo-lee-AY-tum (3-9.8-1)

E. purpureum E. per-PER-ee-um (3-9, 9-1)

E. sessilifolium E. ses-sih-lih-FOlee-um (5-8, 8-5)

Farfugium japonicum far-FEW-jeeum jah-PON-ih-kum (7–8, 8–6)

Fragaria vesca frah-GAY-ree-uh VES-kuh (3-9, 9-2)

F. virginiana F. vir-jin-ee-AN-uh (5-8, 8-4)

Helianthus divaricatus hee-lee-AN-thus dih-vair-ih-KAY-tus (3-8, 8-2)

H. giganteus H. jy-gan-TEE-us (3-8, 8-1)

H. maximiliani H. maks-ih-mil-ee-AN-eve (4-9, 9-4)

H. occidentalis H. ahk-sih-den-TAL-iss (5–9, 9–5)

Heliopsis helianthoides hee-lee-OP-siss hee-lee-an-THOY-deez (4-9, 9-1)

Ilex glabra EYE-leks GLAB-ruh (5-9, 9-3)

I. ×meserveae I. meh-SER-vee-ee (5-9, 9-5)

Illicium floridanum ih-LISS-ee-um flor-ih-DAN-um (7-9, 9-4)

*I. henryi* I. HEN-ree-eye (7–9, 9–2) Kirengeshoma koreana kee-renggeh-SHO-muh kor-ee-AN-uh (5-8.8-5)

K. palmata K. pal-MAY-tuh (5-8, 8-5)

Liatris aspera ly-AY-triss ASS-peruh (3–9, 9–1)

L. cylindracea L. sih-lin-DRAY-seeuh (4-9, 9-3)

L. pycnostachya L. pik-no-STAKEee-uh (3-9, 9-2)

L. spicata L. spy-KAY-tuh (3-10,

Ligularia dentata lig-yew-LAIRee-uh den-TAY-tuh (4-8, 8-1)

L. przewalskii L. sha-VAL-skee-eye (4-8, 8-1)

Loropetalum chinense Ior-o-PEHtal-um chy-NEN-see (7-9, 9-7) L. chinense var. rubrum L. chy-NENsee var. ROO-brum (7-9, 9-7)

#### M-R

Mahonia aquifolium mah-HO-neeuh ah-kwi-FO-lee-um (5-9, 9-3) Osmanthus heterophyllus oz-MANthuss het-ur-o-FIL-lus (7-9, 9-7) Pieris floribunda PY-er-iss flor-ih-BUN-duh (5-8, 8-4)

Podophyllum difforme pah-doh-FILlum dy-FORM-ee (6–9, 8–6) P. pleianthum P. plee-AN-thum

(6-8.8-5)

Prunus americana PREW-nus uh-mair-ih-KAN-uh (3-8, 8-1) P. laurocerasus P. law-ro-SEH-

rah-sus (6-9, 9-6)

P. pennsylvanica P. pen-sil-VANih-kuh (6-8, 8-6)

P. serotina P. sair-OAT-ih-nuh (4-8, 8-1)

P. virginiana P. vir-jin-ee-AN-uh (3-8, 8-1)

Rheum palmatum REE-um pal-MAY-tum (5-9, 9-1)

R. rhabarbarum R. ruh-BAR-buhrum (5-8, 8-1)

Rodgersia aesculifolia rah-JERZee-uh es-kyew-lih-FO-lee-uh (5-8, 8-1)

R. pinnata R. pin-NAY-tuh (3-7, 7-1)

R. podophylla R. pah-doh-FIL-luh (5-8.8-5)

Rosa arkansana RO-zuh ar-kan-SAN-uh (4-8, 9-5)

R. carolina R. kair-o-LIE-nuh (4-9.9-1)

R. palustris R. pah-LUS-triss (4-9, 10-1)

R. setigera R. seh-TIJ-ur-uh (5-8, 8-4)

#### S-Z

Solidago caesia sol-ih-DAY-go SEEZ-ee-uh (3-9, 9-1)

S. nemoralis S. neh-mor-AL-iss (2-9, 9-1)

S. patula S. PAT-yew-luh (4-8, 8-3)

S. speciosa S. spee-see-O-suh (5-9.8-4)

Syneilesis palmata sin-ee-LEE-sis pal-MAY-tuh (4-8, 8-1)

Vernonia gigantea vur-NO-nee-uh iv-GAN-tee-uh (5-9, 9-5)

V. missurica V. mih-ZUR-ih-kuh (3-8, 8-1)

Viburnum acerifolium vy-BUR-num ay-sur-ih-FO-lee-um (4-8, 8-1)

V. xburkwoodii V. burk-WOOD-eeeye (5-8, 8-1)

V. cylindricum V. sih-LIN-drih-kum (6-8, 7-1)

V. lentago V. len-TAY-go (2-8, 8-1) V. opulus var. americanum V. OPyew-lus var. uh-mair-ih-KAN-um (2-8.8-1)

V. prunifolium V. proo-nih-FO-leeum (3-9, 9-1)

*V. tinus* V. TY-nus (8–10, 10–8)

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