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The Magazine of the American Horticultural Society

July / August 2007

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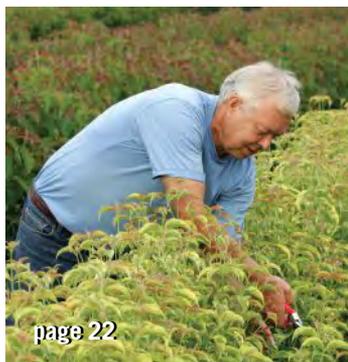
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# AMERICAN HORTICULTURAL SOCIETY

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## NOTES FROM RIVER FARM

**Y**OU, OUR MEMBERS, the readers of this magazine, are our most important constituent group. Our goal is to bring you a broad range of gardening information that will be of value to you—and inspire you—in your personal and professional life. This issue features a special focus on evening gardens, and you will find numerous ideas and inspirations for creating a haven to be enjoyed after dark. Other articles include a profile of Harald Neubauer, a Tennessee nurseryman who propagates new trees and shrubs for many of the country's top wholesale and retail nurseries, and a feature on hardy plants for cool-climate gardens.

During a recent meeting of our Board of Directors, a great deal of discussion revolved around the American Horticultural Society's national mission and goals. Organizations such as ours frequently revisit the mission to ensure that the information and programs we are providing to our members remain timely and valuable in an ever-changing world. Over the next few months, we will be conducting a study and doing some surveying to help us refine our guiding principles and member services.

In June, we held our annual national awards ceremony here at River Farm to honor the winners of the Society's 2007 Great American Gardeners Awards and Book Awards (an article on the awards ceremony can be found on page 7). The recipients of these awards are people from all across this country who have made a difference in diverse sectors of the gardening world. From the perspective of someone who was attending the awards ceremony for the first time, it was truly a memorable experience. Several of the winners gave very emotional speeches. Nursery owner Paul Saunders, winner of the Paul Ecke Jr. Commercial Award, brought his wife, children, and grandchildren up to share the podium with him.

What rang through loud and clear, however, was just how touched each and every one of them was that the American Horticultural Society sponsors this national awards program. After the ceremony, one of them came up to me and said, "Thank you for honoring me for doing the work that I love." In the near future, we will be launching a campaign to permanently endow all of our awards to ensure that these dedicated people and companies will get the recognition and support they deserve for their life's work.

It's an exciting era at the American Horticultural Society. In the coming months we will be sharing with you details of some new initiatives we are getting ready to launch. I invite you to pass along any ideas you might have in this regard, as well as to add your input to the discussion we will be having during our "2010 Mission" planning process.

I look forward to the opportunity to speak with you at one of our upcoming national programs. These include the National Children & Youth Garden Symposium in Minneapolis, Minnesota, on July 19-21; the Annual Gala with the theme "Music in the Garden" here at River Farm on September 29; and the Garden School hosted by Yew Dell Gardens in Crestwood, Kentucky, on October 4 and 5.



—Deane H. Hundley, *President & CEO*



KASSIE BAKER

## MEMBERS' FORUM

### THE STORY OF 'GOLDSTURM'

I enjoyed Pam Baggett's article on the genus *Rudbeckia* in the May/June issue but wanted to clarify an occasional misunderstanding about the cultivar 'Goldsturm'. The first distributed plants were

not vegetatively produced by division, but rather were seed-raised. Over the years, nursery catalogs have sometimes offered what was thought to be the "original" 'Goldsturm' but there was none. This award-winning black-



'Goldsturm' rudbeckia

eyed-Susan is simply a botanical variety of *Rudbeckia fulgida* and very rarely shows any variation from seed. Indeed, there is some suspicion that the plant might be apomictic—producing seed without fertilization.

Several years ago, Klaus Jelitto of Jelitto Perennial Seeds shared this interesting story about 'Goldsturm' discoverer Heinrich Hagemann, who was chief gardener for German nurseryman Karl Foerster and a long-time mentor and friend to Jelitto.

In the 1930s, Hagemann visited the Gebrueder Schuetz Nursery at Olo-

mouc, in what is now the Czech Republic. He was impressed with a group of nearly 50 plants of *Rudbeckia fulgida* var. *sullivantii* Schuetz had received from the botanic garden at Graz in Austria, which in turn had obtained seed from the United States. Unfortunately, no one knows where in the United States the seed originated. Upon his return to Foerster's garden, near Potsdam, Hagemann told his boss about his discovery, but Foerster was dubious that the plants could be more attractive than *Rudbeckia speciosa* (now more commonly rendered *R. fulgida* var. *speciosa*).

Hagemann later returned to Schuetz and was given 10 of the special rudbeckias. They were planted in Foerster's garden and flowered for the first time the following year, in 1938. Foerster walked quietly among these new black-eyed Susans and said to Hagemann, "You were right, young man. This one is better than *Rudbeckia speciosa*. But the name, *sullivantii*! It is no good!" Two days later, Foerster triumphantly announced, "I have found a name. It shall be called 'Goldsturm'"—German for "gold storm."

Vegetative propagation commenced immediately, because they did not realize at the time that the botanical variety comes true from seed. Contracts were made with several German mailorder companies, but World War II intervened, and it was not until 1949 that a small number of plants was first distributed. These were all seed grown. It has been suggested that Foerster had conducted breeding work—or even selected a special form—on the initial plants that had been smuggled across the German border, but Hagemann repeatedly refuted this claim.

By the 1950s, 'Goldsturm' had become a best-selling perennial in Germany and slowly made its way across Europe. Ironically, the plant did not become popular in its native continent until the 1980s, when nurseryman Kurt Bluemel and landscape designer Wolfgang Oehme began planting and pro-

moting it because they had learned of it during their apprenticeships in Germany.

Allen Bush  
Jelitto Perennial Seeds  
Louisville, Kentucky

### HELENIUM MISIDENTIFICATION?

In the article by Jo Ann Gardner in the May/June 2007 edition, the helenium shown on page 22 is identified as 'Moerheim Beauty', but it looks very different



Helenium 'Moerheim Beauty'—or not?

from the "warm glowing bronze-red" (*Frances Perry Collins Guide to Border Plants*) flowers of the 'Moerheim Beauty' that I know so well in my own garden. Is there a chance your photo is misidentified and shows a different selection, such as *Helenium waltraut* or *H. 'Chelsey'*?

In our garden, 'Moerheim Beauty' gives a better second round of bloom after deadheading than any other helenium we have grown.

David G. Clark (Reverend)  
Sevenoaks, Kent, United Kingdom

**Editor's response:** We are inclined to agree with you; the sneezeweed in the photo, shown above, seems quite different from most published images of 'Moerheim Beauty'. We are trying to confirm its identity and welcome suggestions from readers.

**PLEASE WRITE US!** Address letters to Editor, *The American Gardener*, 7931 East Boulevard Drive, Alexandria, VA 22308. Send e-mails to editor@ahs.org (note Letter to Editor in subject line). Letters we print may be edited for length and clarity.

### MAGAZINE ISSUES WANTED

An AHS member is in search of several back issues of *The American Gardener* that are no longer in stock. If you are willing to part with your copy of any of the following issues, please contact Rene Lipshires at (508) 429-2706 or email Rene@Lipshires.com.

1996: March/April  
1997: July/August  
1998: July/August  
1999: July/August

## AHS Award Winners Honored

RECIPIENTS OF the AHS 2007 Great American Gardeners Awards and Book Awards were honored on June 1 during an evening banquet and ceremony at the Society's headquarters at River Farm. A veritable who's who in the green industry from all over the United States were on hand to receive awards for their outstanding contributions to horticulture, landscape design, garden communication, and other related fields.



**Kris Jarantoski of the Chicago Botanic Garden received the Professional Award from Awards Committee Chair Bill Barrick and AHS Board Chair Susie Usrey during the June awards ceremony.**

The evening culminated with the presentation of the Liberty Hyde Bailey Award for woody plant guru **Michael Dirr**, an author, professor, and plant breeder who is about to retire after more than 20 years as a horticulture professor at the University of Georgia. AHS Board member **Steven Still** accepted the award on behalf of Dirr, who was not able to attend the ceremony.

"These award winners represent the highest levels of achievement in nearly every sector of the horticulture industry," says AHS President **Deane H. Hundley**. "It's our privilege to recognize them for their dedication, creativity, and all-around passion for plants and gardening."

Nominations for next year's Great American Gardeners Awards are being accepted until September 28. Turn to page 8 for more information and a nomination form, or call AHS Education Programs Coordinator **Jessica Rozmus** at (703) 768-5700 ext. 137.

## President's Council Excursion

A RECORD-BREAKING 37 AHS President's Council members attended the exclusive trip to Charlotte, North Carolina, this past

spring. Members enjoyed tours to public and private gardens in the surrounding area, including Wing Haven Garden & Bird Sanctuary, Elizabeth Lawrence House & Garden, and a behind-the-scenes tour of the Daniel Stowe Botanical Garden.

Next year, members of the AHS President's Council will be offered the opportunity to tour the gardens and nurseries of the Willamette Valley and in Portland, Oregon.

The President's Council consists of six donor levels: the Champion's Circle, Chairman's Circle, Liberty Hyde Bailey Circle, Haupt Circle, Council Member's Circle, and Honorary President's Council. Donor benefits include special travel opportunities, autographed gardening books, two tickets to the AHS annual gala, and a private, guided tour of the AHS headquarters at River Farm. For additional information, call **Sue Dick** at (703) 768-5700 ext. 111 or e-mail [sdick@ahs.org](mailto:sdick@ahs.org).



**The President's Council tour included a visit to Daniel Stowe Botanical Garden.**

## Fall Plant and Antiques Sale

MARK YOUR CALENDARS for the AHS's first annual Fall Plant Sale and the National Capital Area Garden Club's (NCAGC) Antiques RiverShow at River Farm. On Sunday, September 23, local plant vendors will be selling fall-blooming herbaceous plants, new releases for the 2008 season, and hard-to-find perennials, shrubs, ferns, and bulbs.

In conjunction with the AHS Fall Plant Sale, the NCAGC will host an Antiques RiverShow fundraiser. Modeled on the popular public television program "Antiques Roadshow," the event will feature professional antique appraisers who, for a fee, will be available to assess items brought in by visitors. Antique dealers will also be selling specialty antiques. For additional information, visit [www.ahs.org](http://www.ahs.org) or call (703) 768-5700.

### IT'S SEED SAVING TIME!

As plants in your garden begin to set seeds this summer, consider saving seeds to share with fellow members in the **AHS Annual Seed Exchange**. Each winter, members can choose from a variety of perennials, annuals, vegetables, and other plants. Participating in this popular member benefit is a cost-efficient, easy way to increase variety in your garden. The deadline for seed submission for the 2008 exchange is November 1, 2007. Visit [www.ahs.org](http://www.ahs.org) or call (703) 768-5700 for additional information.

## Call for Nominations

# AMERICAN HORTICULTURAL SOCIETY 2008 GREAT AMERICAN GARDENERS AWARDS



Norman Lownds, 2007 Jane L. Taylor Award

### *It's an Honor...*

Since 1953, the American Horticultural Society's Great American Gardeners Awards Program has recognized individuals and institutions that have made significant contributions to American horticulture. Nominations are now being accepted for 2008.

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

Use the nomination form on the opposite page. For additional information, visit [www.ahs.org](http://www.ahs.org) or call (703) 768-5700 ext. 137.

**Nominations must be submitted by September 28, 2007.**



#### **Liberty Hyde Bailey Award**

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

#### **H. Marc Cathey Award**

Recognizes outstanding scientific research that has enriched the field of horticulture.

#### **Paul Ecke Jr.**

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

#### **Horticultural Communication Award**

Recognizes effective and inspirational communication—through print, radio, television, and/or online media—that advances public interest

## 2008 AWARDS



and participation in horticulture.

#### **Landscape Design Award**

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

#### **Meritorious Service Award**

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

#### **Frances Jones Poetker Award**

Recognizes significant contributions to floral design in publications, on the platform, and to the public.

#### **Professional Award**

Given to a public garden administrator whose

achievements during the course of his or her career represent a significant contribution to horticulture.

#### **Catherine H. Sweeney Award**

Recognizes extraordinary and dedicated philanthropic support of the field of horticulture.

#### **Jane L. Taylor Award**

Given to an individual, organization, or program that has inspired and nurtured future horticulturists through efforts in children's and youth gardening.

#### **Teaching Award**

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

#### **Urban Beautification Award**

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

## America In Bloom Symposium

“ROCK ‘N ROLL” into Rockford, Illinois, for the sixth annual America in Bloom (AIB) Symposium and Awards Program September 27 through 29. The program includes keynote presentations by Illinois Environmental Protection Agency Director **Douglas Scott** and landscape architect **Doug Hoerr**, concurrent informational sessions, and inspirational learning tours. It will conclude with a gala and awards ceremony to honor winners from eight different population categories.



“The symposium is a very inspiring event,” says AIB Administrator

**Laura Kunkle**. “In addition to being fun, the sessions and tours provide real take-home ideas that people are excited about implementing in their own community.”

For more information, contact (614) 487-1117 or visit the AIB website at [www.americainbloom.org](http://www.americainbloom.org).

The AIB symposium includes an optional tour of Rockford's Sinnissippi Gardens.

## Eagle Scout Project at River Farm

WITH THE HELP of 14 fellow Boy Scouts in Troop 1509, Eagle Scout **Colin Amerau** earned a badge that elevated his scout rank in June by enhancing the facilities in *The Growing Connection* Demonstration Garden at River Farm. Amerau, who lives in Alexandria, Virginia, designed and helped build an outdoor classroom consisting of six benches and a demonstration table. The **Yacht Haven Garden Club** of Alexandria generously donated the lumber used for the project.

Created through a partnership between the Food and Agricultural Organization of the United Nations and the AHS, *The*



Eagle Scout Colin Amerau at the demonstration table that he helped design and build for *The Growing Connection* garden at River Farm.



AHS NATIONAL EVENTS AND PROGRAMS

## 2007 CALENDAR

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

- JULY 19–21. **National Children & Youth Garden Symposium.** Chaska, Minnesota. Hosted by the Minnesota Landscape Arboretum Public Policy Programs.
- AUG. 4. **Lecture with The Care of Trees Entomologist.** George Washington's River Farm. Alexandria, Virginia.
- AUG. 24–26. **The Homestead's In the Garden Weekend.** Hot Springs, Virginia.
- SEPT. 23. **Fall Plant Sale and Antiques RiverShow.** George Washington's River Farm. Alexandria, Virginia.
- SEPT. 25. **“Bulbs that Work.”** AHS online seminar hosted by Allan Armitage.
- SEPT. 27–29. **America in Bloom Symposium & Awards Banquet.** Rockford, Illinois.
- SEPT. 29. **AHS Annual Gala.** George Washington's River Farm. Alexandria, Virginia.
- OCT. 4 & 5. **AHS Garden School: “The Amazing World of Plants.”** Yew Dell Gardens. Crestwood, Kentucky.
- OCT. 23. **Dr. H. Marc Cathey Day.** George Washington's River Farm. Alexandria, Virginia.
- DEC. 3–21. **Holiday Trees Display.** George Washington's River Farm. Alexandria, Virginia.
- DEC. 13. **Annual FORF Holiday Reception.** George Washington's River Farm. Alexandria, Virginia.

*Growing Connection* is an international program that educates children about nutrition and growing food in a global context.

“Colin and his troop have created a great learning space to conduct *The Growing Connection's* teacher trainings and demonstrations,” says **Jessica Rozmus**, AHS education programs coordinator. “Their craftsmanship will greatly enhance our ability to show middle-school teachers how to grow vegetables, herbs, and other plants in self-contained planters called EarthBoxes. The teachers then use what they learn from our training to develop lesson plans that teach students the science behind growing food, nutrition, math, and other subject areas.”

## Homestead In the Garden Weekend

JOIN AHS horticultural partner the Homestead resort, located in picturesque Hot Springs, Virginia, for its upcoming ninth annual "In the Garden Weekend," held August 24 to 26.

The program features presentations by horticulturist and author **André Viette**, native plant expert **Richard Bir**, horticulturist **Robert Lyons** of Longwood Gardens, landscape architect **Gordon Chappell** of Colonial Williamsburg, and many other horticultural luminaries.

In addition to the educational presentations, participants will also enjoy a welcome reception, afternoon tea, and a guided hike. "This year, we have



The Homestead will be hosting its Garden Weekend in late August.

a complimentary Gorge Hike through the Cascades Gorge, where participants can learn about many of the native plants and see 13 beautiful waterfalls," says **Eileen Judah**, marketing department head at the Homestead.

For additional information about this symposium, visit the Homestead's website at [www.thehomestead.com](http://www.thehomestead.com) or call (800) 838-1766.

## TGOA Photo Contest

ARE YOU PROUD OF your garden and interested in showing it off to gardeners across the country? Consider capturing those tantalizing plant combinations and perfect blooms on film for The Gardeners of America/Men's Garden Club of America (TGOA/MGCA) 2008 Photography Contest.

Two AHS members who submitted images for the 2007 competition will have their photos published in the 2008 TGOA/MGCA calendar. AHS Immediate Past Chair **Arabella Dane's** photo will be the featured image for the month of July, and a photo by **Anne C. Allen**, from Brownsville, Vermont, will grace the October page.

The deadline for submissions to next year's competition is February 13, 2008. For additional information, contact **Judy Schuck**, the TGOA/MGCA national photography and calendar chairman, at (913) 362-8480 or visit [www.tgoa-mgca.org](http://www.tgoa-mgca.org).

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For more information on how you can be part of this exciting event, visit [www.ahs.org](http://www.ahs.org) or call (703) 768-5700 ext. 137.



Featuring guest horticulturist **Graham Rice**, editor-in-chief of the *American Horticultural Society's Encyclopedia of Perennials* and author of numerous books including *The All-in-One Garden* and *The Ultimate Book of Small Gardens*.

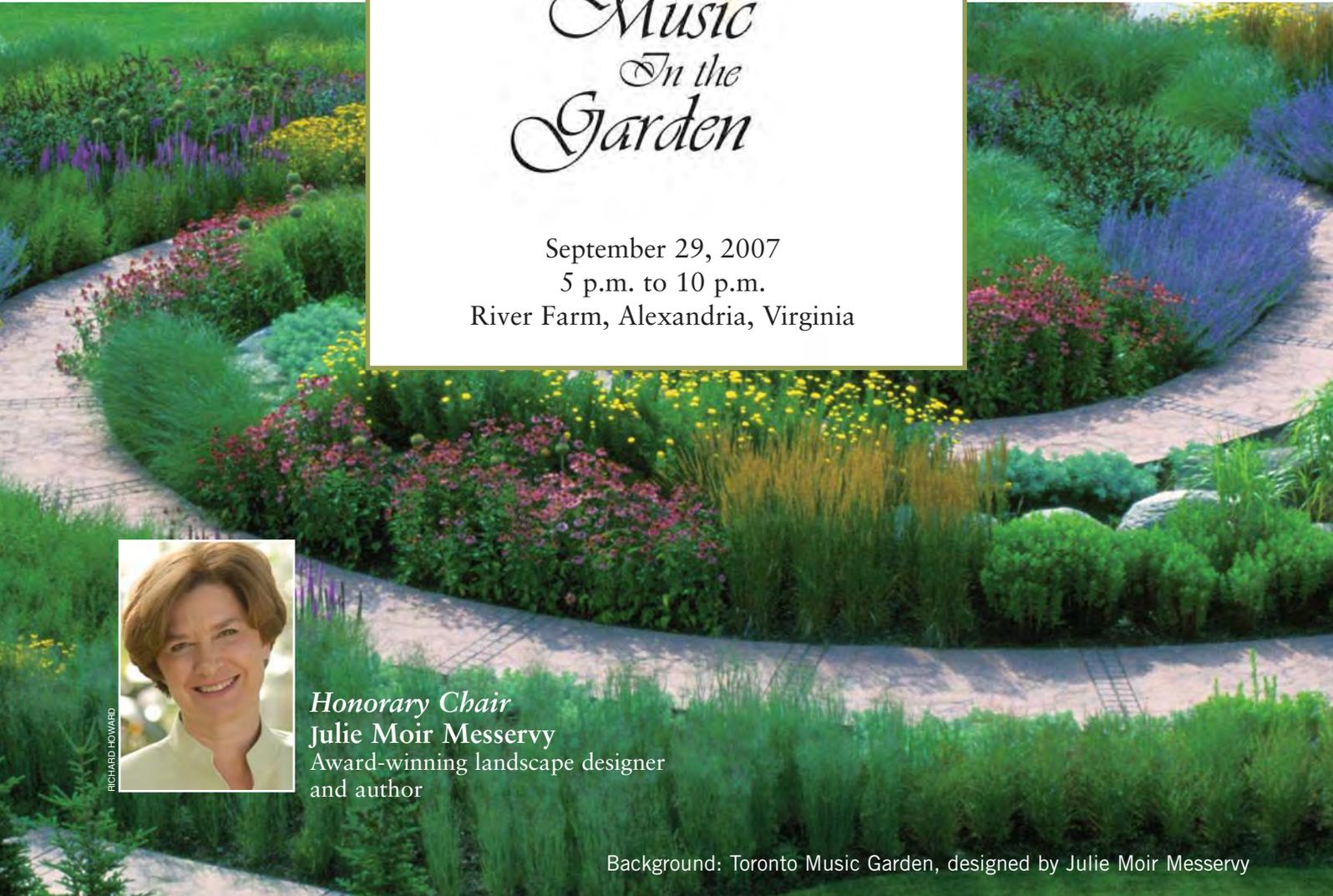


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For more information about the gala or to request an invitation,  
please e-mail Kyle Marie Harpe, volunteer coordinator,  
at [kharpe@ahs.org](mailto:kharpe@ahs.org) or call (703) 768-5700 ext. 124.

## Second AHS Online Seminar Presented in May

AHS MEMBERS from 33 states plus the District of Columbia and one Canadian province participated in the second AHS webinar, “Annuals That Work,” on May 10. Through their computers, they watched an hour-long presentation given by University of Georgia horticulture professor and garden author **Allan Armitage** on new and unusual annuals. Some annuals Armitage is particularly excited about include *Euphorbia* ‘Diamond Frost’, naranjilla (*Solanum quitoense*), and eyeball plant (*Spilanthes oleracea*). At the end of the webinar, Armitage also responded to questions from the audience.

“These sessions are super,” says **Linda Lehmusvirta** of Austin, Texas, who attended both the AHS’s first webinar on perennials in March and the annuals webinar. “I learned so much and I’m looking forward to more.”

“Bulbs That Work,” the final webinar in the series presented by Armitage, will be held on September 25. Visit [www.ahs.org](http://www.ahs.org) to register.

*News written by Editorial Intern Courtney Capstack and Assistant Editor Viveka Neveln.*

*During “Annuals That Work,” Allan Armitage answered several questions from participants. Here he responds to a few of the questions he was not able to address during the webinar.*

**Can you recommend a few petunias that have the good old-fashioned scent that just hangs in the air in the evening?**

*Jesse Bell*

*Claremore, Oklahoma*

What with the insane breeding in petunias and other annuals, fragrance has often been forgotten. Look for seed packages—I doubt garden centers will have these as plants—of *P. integrifolia*, or “old-fashioned” petunias. The flowers are smaller and usually

in pastel colors and the plants are taller, but the fragrance will fill the evening air.

**What are some good flowering annuals for shady areas?**

*Dora Rouse*

*Worthington, Ohio*

Shade is a moving target; if you are talking about heavy shade most of the day from big trees or buildings, there is little to choose from other than impatiens and begonias. If

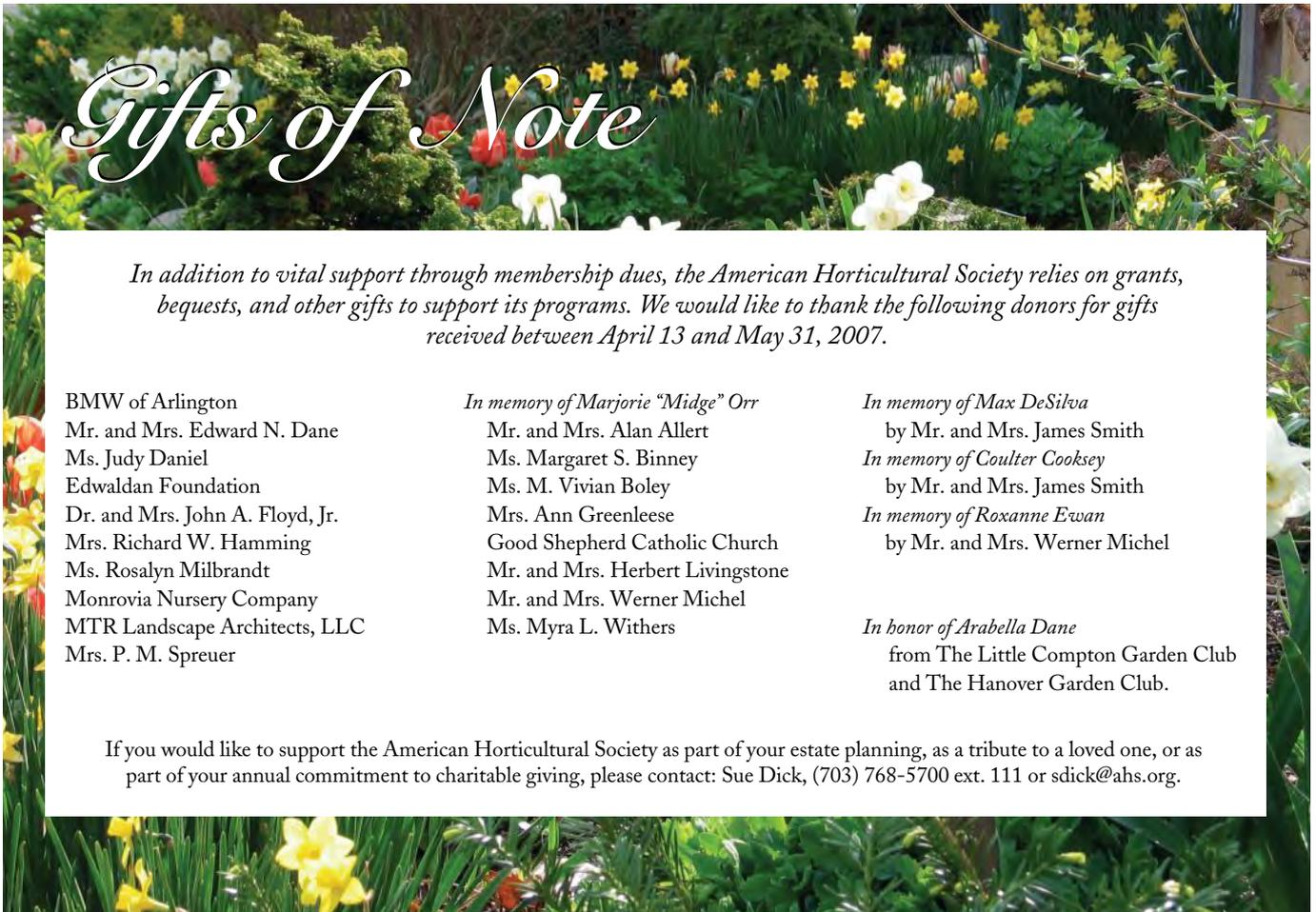
you have shade for about half the day, salvias, nierembergias, lobelias, and a few others will work.

**How do you recommend fertilizing potted plants?**

*Mary Sebring*

*Kent, Ohio*

If I am going to keep a plant in a pot or grow it in a container, I use a slow release fertilizer, such as Osmocote. I apply a tablespoon at planting and another in midsummer.



### *Gifts of Note*

*In addition to vital support through membership dues, the American Horticultural Society relies on grants, bequests, and other gifts to support its programs. We would like to thank the following donors for gifts received between April 13 and May 31, 2007.*

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from The Little Compton Garden Club  
and The Hanover Garden Club.

If you would like to support the American Horticultural Society as part of your estate planning, as a tribute to a loved one, or as part of your annual commitment to charitable giving, please contact: Sue Dick, (703) 768-5700 ext. 111 or [sdick@ahs.org](mailto:sdick@ahs.org).



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## AHS PARTNERS IN PROFILE

# YourOutDoors: Creating a Multi-functional Gardening Tool

by Courtney Capstack

**F**OUR YEARS AGO, **Ray Miller** had a heart attack, jeopardizing his ability to enjoy one of his favorite pastimes: gardening. Upon discovering that conventional garden tools were too heavy and imbalanced for his new found needs, Miller designed “The Perfect Garden Tool System,” a multi-purpose tool for users of all ages and abilities.

In 2006, Miller, an entrepreneur whose career included stints in the telecommunications and medical software industries, founded YourOutDoors, Inc., to manufacture and distribute his new product and other garden hand tools. Since then, this Florida-based company has expanded into a rapidly growing business, forming partnerships with nine universities and gardening organizations (including the American Horticultural Society), donating five percent of all revenue earned to the World Craniofacial Foundation, and boasting a core management staff whose backgrounds range from senior positions in start-up companies to Fortune 500s.

### A TOOL FOR ALL GARDENERS

“The Perfect Garden Tool System,” the initial product offering of YourOutDoors, Inc., was designed for maximum versatility. “I wanted to create a garden tool that fits everyone,” says Miller. “We selected 13 of the most popular garden tools on the market and combined them into one.”

The unique handle, designed ergonomically to increase stability, replaces

For more information about YourOutDoors, Inc., visit its website at [www.perfectgardentool.com](http://www.perfectgardentool.com).

To learn more about establishing a corporate partnership with the AHS, please visit the AHS website at [www.ahs.org](http://www.ahs.org) or e-mail Sue Dick at [sdick@ahs.org](mailto:sdick@ahs.org).



The Perfect Garden Tool System comes in sizes suitable for adults and for children.

the traditional pole handle on most gardening tools, and a “Quick-Snap Connector” allows the desired activity-specific tool—such as a hoe, rake, or shovel—to connect to the base of the handle, creating one streamlined tool. The tool, says Miller, “supports both the standing and kneeling gardening positions” to enable gardeners of all ages and abilities to “work more efficiently with less muscle pain.”

A youth version of the tool system features a handle that is two-thirds the length of the adult handle. “By giving children a tool they can enjoy using,” says Miller, “we hope more young people will become involved with gardening and gain a stronger connection to the outdoors.”

### BRINGING GARDENING TO CHILDREN

To further expand its reach to the youth gardening community, YourOutDoors has partnered with the University of Florida Master Gardener Program, Florida Nursery, Growers and Landscape Association, and the Epcot International Flower &

Garden Festival to create the Florida School Garden Competition. The competition is open to both public and private schools, and each competing school receives one set of tools with extra handles so children can grow their own gardens. Children then write a 500-word essay comparing “The Perfect Garden Tool System” with conventional garden tools.

YourOutDoors hopes to expand this competition to children across the country. “This industry is dependent on getting young people involved with gardening,” says **Jeff Trunzo**, president of YourOutDoors. “Cool, innovative, unique garden tools will help get them interested.”

### SHARED GOALS

A sense of shared values was instrumental in fostering the partnership between the AHS and YourOutDoors. “We respect the work the AHS has done and its goals,” says Miller. **Barry Goodinson**, AHS director of development, recognized parallel goals between both organizations. “YourOutDoors has great energy, enthusiasm, and a solid commitment to youth gardening,” says Goodinson. In support of the AHS’s youth gardening initiative, YourOutDoors has agreed to donate a generous collection of “The Perfect Garden Tool System” tools to attendees at this year’s AHS National Children & Youth Garden Symposium in Minnesota.

Recovered now from the heart attack, Miller says, “I’m 67 years old, and I garden as much or more now than ever.” The promise of influencing a new generation of gardeners through his invention also keeps him looking ahead. “We set about to help affect a change in gardening tools,” says Miller. He sees the partnership with the AHS as another step toward turning that dream into reality.

*Courtney Capstack is an editorial intern for The American Gardener.*

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*pleasures of the*  
Evening Garden

BY PETER LOEWER

Enhance your enjoyment of the garden after dark with appropriate design, good lighting, and the addition of fragrant night-blooming plants.

**A**BOUT 20 YEARS AGO, I became intrigued by the idea of an evening garden. My garden pique was the result of subscribing to Major Howell's International Seed Collection from Cobham, Surrey, England. The good major collected seed from a number of botanical gardens around the world and usually featured 2,000 named varieties.

In 1984, I read his entry on *Hemerocallis citrina*, the night-blooming daylily, and immediately sent for the seed, knowing this might be an unusual addition to the garden. The seed arrived, germinated, and two years later my evening garden—along with the germ of an idea for a book—was launched.

### REWARDS OF EVENING GARDENS

So, you might ask, why develop an evening garden?

My answer at that time (which is even more timely today) was with another question: What's left of your day after you've met commitments to family, home, pets, the job, and your community?

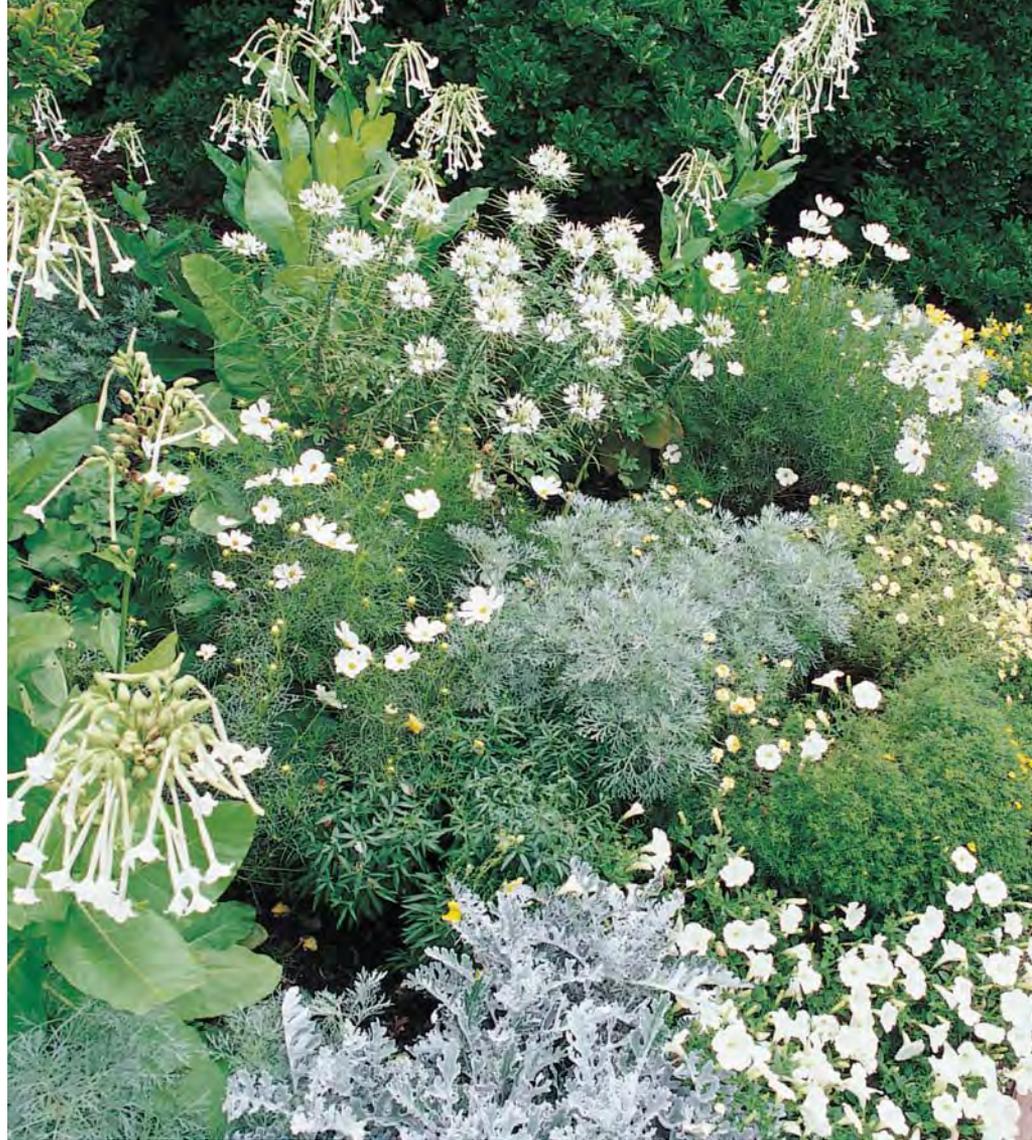
From a city terrace to a country deck, an evening garden is the perfect site for both relaxing and thinking about the day that's passed. Without the distractions of the day, the night gives us a better chance to think about the grand scheme of things, at least in the world of the garden.

The evening garden is also a great spot for entertaining. My wife and I have parties on summer nights with friends and neighbors who come over to watch the moonflowers open with their slow flair or to enjoy the sweet fragrance of the evening primroses in the night air.

### DESIGNING AN EVENING GARDEN

It's a great idea to plan a small garden devoted to the night, where the plan is built around a terrace, a deck, or a small piece of ground close to a home or apartment. My most successful evening garden was an area of 10 by 15 feet located next to a terrace just off the dining room of our former country home in the Catskills of New York.

The terrace included a number of interesting containers. One held a mass of moonflowers that twisted about a wood-



en trellis attached to the side of the house. Three great pots held brugmansias, another a potted palm hung with fairy lights. More pots contained schizopetalons and a very old and large night-blooming cereus. Here and there were pots with various white-flowered plants that were particularly beautiful under moonlight, including geraniums, nicotianas, pansies, impatiens, and begonias.

The garden next to the terrace was home to a small pond full of night-blooming tropical waterlilies, a bank of evening primroses, night-blooming daylilies, yuccas, a free-standing trellis vined with gourds, and low-voltage lights throughout. (For more on garden lighting, see sidebar on page 19).

### FAVORITE PLANTS FOR THE EVENING GARDEN

Until I wrote *The Evening Garden* in the

early 1990s, most books included only a slight mention of night bloomers or tropical nocturnals, and those were British gardening books, too. They usually referred to a few well-known plants that either bloomed at night or were redolent with fragrances that swelled when the sun set and the moon rose.

Most gardeners in America live in parts of the country where winter temperatures fall below freezing. Because the majority of nocturnal plants are tropical in origin, plants for the evening garden are often chosen from what I term annuals that are really tropical perennials that bloom the first year from seed; others are time-honored perennials.

While researching my book, I compiled a list of plants available in the United States. The following represent just a few of my favorite choices. (A chart listing

**Opposite page:** The jasminelike evening fragrance of flowering tobacco more than makes up for its somewhat bedraggled daytime appearance. **This page, top:** A "moon garden" of white flowers and silvery foliage at the Olbrich Botanical Gardens in Madison, Wisconsin, includes flowering tobacco, cleomes, dusty miller, cosmos, and petunias.

dozens of other night-blooming plants can be found in a special link to this article on the AHS website at [www.ahs.org](http://www.ahs.org).

## ANNUALS AND TROPICAL PERENNIALS

Lady-of-the-night (*Brassavola nodosa*) is one of many orchids suited for a spot in the evening garden. One of the easiest orchids for home gardeners to grow, the plant blooms from late September into February, bringing its lush perfume to the late summer garden. The flowers have a white flaring lip surrounded by greenish white sepals and petals, with an average of five buds per stem.

Pot up the orchids in clay orchid pots (with drainage slits) and allow the orchid growing mix to dry out between watering. Keep them away from the piercing summer sun by hanging them under a tree or shrub, then move the pots directly to the garden when they flower.

Angel's trumpets (*Brugmansia* spp.) are one of the stalwarts of the evening garden and make great patio plants because they flower profusely during the summer months. A new compact cultivar, 'Inca Sun', reaches a six-foot height and when the temperature climbs, it flowers continuously with light yellow-peach blooms that are especially fragrant at night.

Provide evenly moist, rich soil in a spot with as much sun as possible, and try to protect plants from temperatures below 60 degrees Fahrenheit at night, although an occasional plunge won't hurt. The flowers are open during the day, but as evening approaches the blossoms send out a heady, sweet scent.

The night-blooming cereuses have been symbols of the evening garden for



**Top:** The large, fragrant white blooms of moonflowers open at dusk. **Above:** Like other brugmansias, the delicately colored flowers of 'Peach Blossom' are open all day, but their fragrance is most pronounced in the evening.

## NIGHT-BLOOMING WORDS

There are three words used in the study of night-blooming and night-fragrant flowers. **Vespertine** means "of or done in the evening" and refers to flowers that open at that time. The word is derived from the Latin for the evening star. **Crepuscular** means "activity at dusk or twilight" and comes from the Latin word for twilight. **Nocturnal** means "occurring at night," and refers to plants that bloom only at night. —P.L.

centuries. Marie Antoinette asked Pierre-Joseph Redouté to paint one for her; Dr. Thornton featured it in his magnificent botanical art series, *The Temple of Flora*; and in his *Journals*, author John Cheever wrote about walking up the hill at night to see a neighbor's cereus in bloom. In many an old Spanish-American home, a fiesta was held the night the cereus bloomed.

The name night-blooming cereus is applied to many cactus-family members with nocturnal flowers, but the one I'm most familiar with is *Epiphyllum oxypetalum*, the plant that blooms in my garden.

From November to February, it lives in my greenhouse, where it's contained in a 14-inch hanging pot made of enameled wire. The pot is lined with sheets of sphagnum moss and contains a soil mix of one part each of potting soil and sharp sand.

Once frost dangers are past, the pot and the plant go out to the garden, hopefully to brighten up warm summer nights in August and September with their blooms.

Whether saluting the evening garden or just for patio entertainment, every garden should sport some moonflowers (*Ipomoea alba*). Moonflowers are perennial vines in

the tropics or a warm greenhouse, but are usually treated as annuals in northern gardens because they bloom the first year from seed. The vines reach a height of 10 feet or more in a good summer season.

The flowers are pure white with just the ghost of a teal-green tint where the trumpet petal folds before opening. They're so attractive and so beautifully scented, they often become the highlights of a party as guests gather to watch the flowers open.

With warm weather, they can flower within six weeks of sowing but eight weeks is the norm. To help break through the hard seed coat, nick them with a file or soak overnight in warm water. Plant them in fertile, moist soil in full sun or a bit of shade down south. But remember to provide strings or a trellis, or plant them on the edge of a wall and the stems will spill over, creating a grand effect.

The fruit of the bottle or penguin gourd (*Lagenaria siceraria*) is best known as the source of materials for the manufacture of bird houses, dipping spoons, or artful garden toys, but its musky-scented flowers open at night and the female flowers show the potential fruit just below the petals.

A trellis is needed for this vining plant, and at dusk the developing pods hang down like shapely sandbags faintly reminiscent of the pods from the classic horror movie *Invasion of the Body Snatchers*. Around them the opening blossoms look like cellophane stars gleaming against the dark green of the leaves.

Easy to grow, bottle gourds need only average soil with a bit of compost mixed in, plus full sun and plenty of water, especially as the gourds develop.

Evening stock (*Matthiola longipetala* subsp. *bicornis*) exudes a wonderful scent heavy with the perfume of jasmine. Stocks are annuals and are best described as straggly. The small pink or purple four-petaled flowers have a white center and look like bits of rain-washed tissue paper. Easily overlooked by day, they become stars of the night border.

The English call them melancholy gilliflower because of their sad presence during the day, but numerous garden writers have penned purple prose to salute their nocturnal fragrance. To enjoy the perfumes throughout the summer, sow new seeds every 10 days or so, at least through the middle of July.

## BASICS OF NIGHT LIGHTING

Lighting a garden at night used to require an outlay of thousands of dollars paid to high-end night-lighting landscapers—or you made do with variations on Malibu lights from California.

Then, almost in answer to the prayers of the evening gardener, low-voltage lighting hit the mass market. Today, even local hardware stores have complete kits of five lamps that use a special step-down transformer that reduces regular—and dangerous—household current of 120 volts to a safe 12-volt system. And it's truly safe: If you accidentally touch a bare wire used in a 12-volt system, you'll not get a shock.

There are even a number of solar lighting options available now, although these lights have obvious limitations related to the amount of daylight they receive. (For more on solar lighting options, see "Green Garage" on page 52.)

Today, design choices abound and even the big box stores feature install-it-yourself night-lighting lamps and wiring that will enhance the most elegant of gardens.

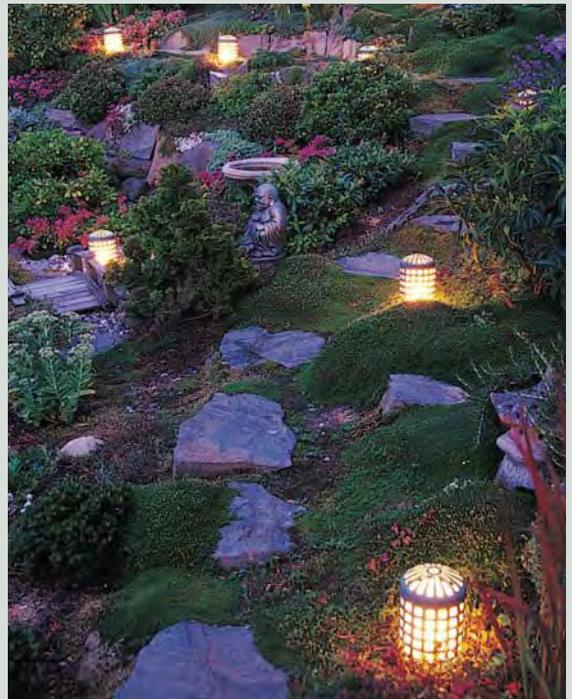
Costs are reasonable, and with an investment of under \$100 and a weekend of laying cables (a simple job), you will be able to walk the evening garden with safety and ease.

Design techniques vary from downlighting (this is a bit more work as the lights hang down from overhead tree branches); uplighting using beams that turn the leaves above into shimmering pools of light; accent or spot lighting (you just light a favored tree or garden area); and path lights (small lights help you find your way).

Remember that all those polished fixtures you see in light displays quickly lose their sheen when exposed to the elements. Try to buy copper, as it ages to a dark brown or deep green patina that blends into a background of plants. When buying lights with a black surface, look for fixtures that feature a durable black polyester powder coating.

The only caveat from my vantage point: Use color filters with care. Most installations advise using a warm white light but some Floridians recommend using a pink filter with tropical plants.

—P.L.



Lantern lights cast a romantic glow in this garden inviting visitors to wander along the stepping stones.

*Mirabilis jalapa*, the miracle flower of Peru, or four o'clocks, have been cultivated since the 1540s. Known for bearing different-colored flowers on single plants opening around four o'clock in the afternoon, they also have a very pleasant lemon scent.

A number of colors are available including red, yellow, white, or rose, and many flowers will be striped or dashed with other hues.

In tropical America they are perennials, forming large tubers just like dahlias. You can dig up and save the tubers for the

next year but they often bloom just as quickly when grown every year from seed.

The capa de oro (*Solandra maxima*) has very fancy flowers, even for night bloomers. The ripe yellow, cup-shaped blossoms are about seven inches long and six inches across. Five dark purple lines run down the tube from the lip—where the edges of the cup are folded back—ready to guide a moth to the bottom of the floral well. As the flowers age, they assume tints of orange. Although the scent of capa de oro closeup reminds me of really cheap soap, it mellows with distance. I grow them from seed and treat them like any tropical vine, giving the plant a place to climb and protection from the hot sun of high noon.

Flowering tobacco (*Nicotiana glauca*) is another somewhat sorry-looking daytime garden inhabitant. But around 6 p.m., its trumpet-shaped flowers open along stems that may reach five feet tall. Their fragrance might remind you of jasmine. It is native to tropical South America, where it is perennial, but here we grow it as an annual. Breeders have worked to extend its flowering into daylight hours, but this has come at the cost of fragrance.

## BULBOUS PLANTS AND HARDY PERENNIALS

As mentioned above, the night-bloom-



***Solandra maxima* is a tropical vine with glossy green leaves and strongly scented yellow flowers that age to gold.**

ing daylily (*Hemerocallis citrina*) launched my interest in evening gardens. Sometimes called the citron daylily, plants were originally found in central China, discovered in 1890 by a Catholic missionary, Guiseppe Giraldi, who sent plants to Italy.

Immediately, hybridizing began—the goal being to extend the one-day bloom of a daylily to two days. The nursery indus-

try pushed and pulled for almost a century and succeeded only in scattering the genes throughout the daylily clan, resulting in a number of cultivars having night-blooming tendencies.

But nothing beats the species. In addition to opening late in the afternoon—only melting with the coming of the next day's noon—it's a carefree perennial, growing almost anywhere you provide moist, mildly fertile soil and, in the American South, some protection from the noontime sun. In addition, as they mature, plants produce hundreds of flowers and have a fountain of leaves, unlike the limited foliage of most daylily cultivars.

The tuberose (*Polianthes tuberosa*) is among the sweetest scented flowers of the night. Plant it beneath an open window so you can enjoy its rich fragrance indoors and out. There are two selections: the four foot tall 'Mexican Everblooming' and the double flowered 'Pearl', which reaches a height of only 16 inches. Tuberoses grow from bulblike rhizomes; they take a relatively long time to produce flowers, so start plants indoors about four weeks before the last spring frost. Except where the ground never freezes, the tender rhizomes can be dug and stored for winter in a warm dry place.

## Resources

**The Evening Garden** by Peter Loewer, Macmillan Publishing Co., New York, 1993.

**The Moonlit Garden** by Scott Ogden, Taylor Publishing Co., Dallas, Texas, 1998.

## Sources

**The Fragrant Path**, Fort Calhoun, NE. [www.fragrantpathseeds.com](http://www.fragrantpathseeds.com). Catalog \$2. (Seeds only)

**Logee's Greenhouses**, Danielson, CT. (888) 330-8038. [www.logees.com](http://www.logees.com). Catalog \$3.

**Nichols Garden Nursery**, Albany, OR. (541) 928-9280. [www.gardennursery.com](http://www.gardennursery.com).

**Park Seed**, Greenwood, SC. (800) 213-0076. [www.parkseed.com](http://www.parkseed.com).

**Perennial Pleasures Nursery**, East Hardwick, VT. (802) 472-5104. [www.antiqueplants.com](http://www.antiqueplants.com).

**Thompson & Morgan**, Jackson, NJ. (800) 274-7333. [www.thompson-morgan.com](http://www.thompson-morgan.com).



**The waxy white blooms of the tuberose retain their delicious scent even when cut for flower arrangements.**



Above: One flowering stem (scape) of the citron daylily may produce up to 50 flower buds. Top left: Abyssinian gladiolus (*Gladiolus callianthus*) blooms in midsummer from corms planted in spring. Bottom left: The flowers of *Yucca filamentosa* turn upward at dusk.

The Abyssinian gladiolus (*Gladiolus callianthus*, syn. *Acidanthera bicolor*), is a bulbous plant in the iris family. Its creamy white blossoms have a decorative rich chocolate maroon center. They fill the evening air with a sweet smell reminiscent of violets. Growing from corms, these plants are hardy only in USDA Zones 7-10, but in cooler regions they can be planted in April and then dug up in fall and overwintered much like dahlias. They bloom in July to August, depending on the region.

Another bulbous plant for the evening garden is the Madonna lily (*Lilium candidum*). The fragrant white flowers unfurl

on six-foot stems in mid- to late summer. Unlike most other lilies, Madonna lilies must be planted so the top of the bulb is only an inch or two deep.

The evening primroses (*Oenothera* spp.) are another favorite group of plants for the evening garden, although a few are rambunctious enough to be best relegated to the wild garden. These biennials and perennials are covered in a separate article in this issue (see page 34), but I mention them because there is a short period of time on summer evenings—10 to 15 minutes at most—when the atmosphere takes on a luminous quality, magnifying the yellow flowers of many selections—and the results are quite beautiful. It's then that sphinx moths descend to drink the nectar, adding to the spectacle.

There are a number of species of yuccas (*Yucca* spp.), but my favorite garden entry is Adam's needle (*Y. filamentosa*), a clump grower that in midsummer sends up flower panicles that can reach 10 feet but are usually a little shorter. The spine-tipped leaves are gray-green, up to 30 inches, and edged with long, curly threads. The fragrant blossoms are white.

During the day the six-petaled blossoms hang down like bells, but at dusk,

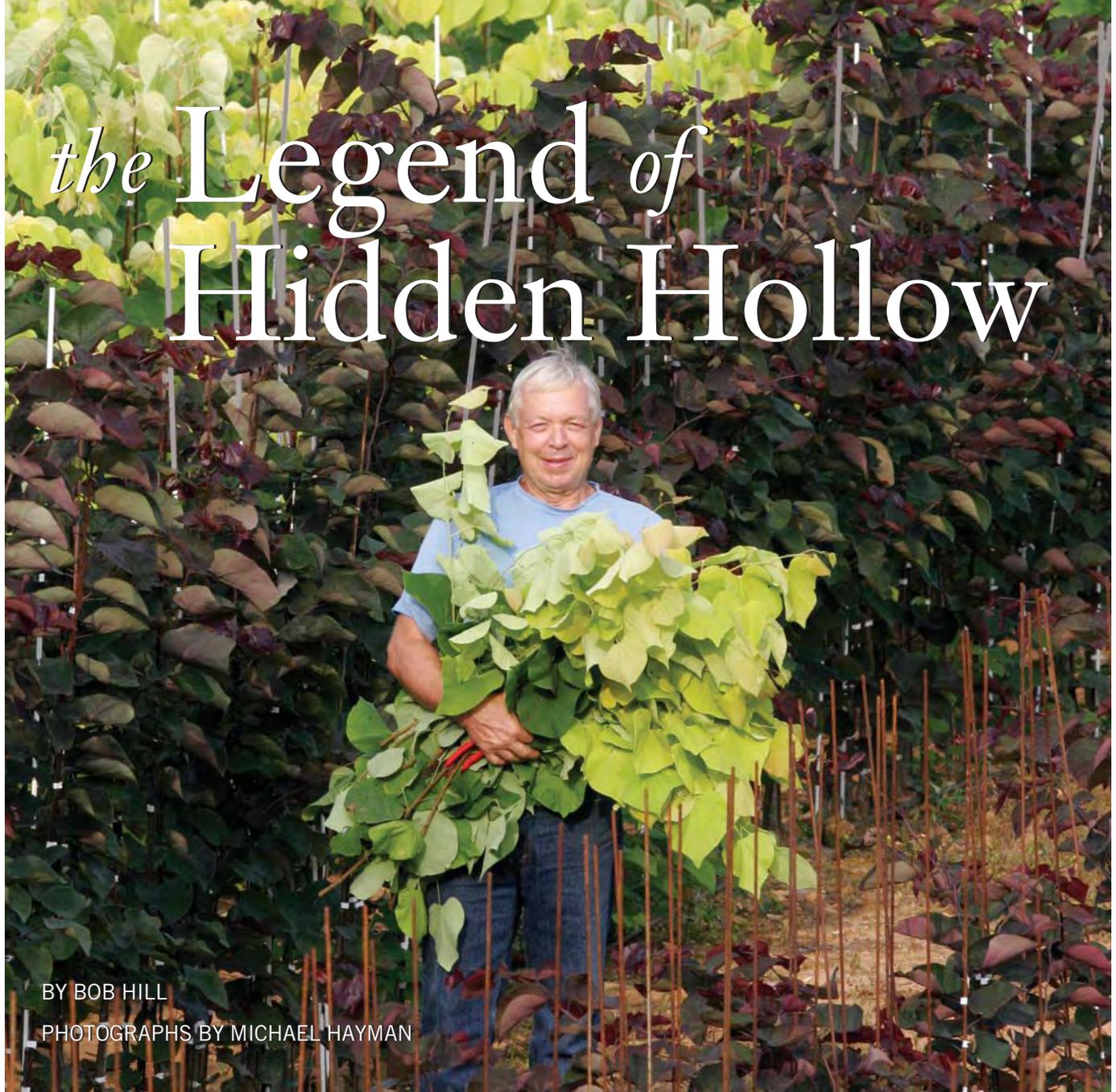
they turn up to the evening sky, open wide, and release a sweet soapy scent to the night air. The odor attracts time-honored pollinators, the yucca moths (*Tegeticula yuccasella*), small unassuming insects that are responsible for all the yucca seeds eventually released to the winds.

## SEIZE THE NIGHT

Back in the late 1980s, upon entering my first evening garden, the die was cast. Today my wife and I hold full-moon garden parties (with pathways marked with luminarias) and visitors often bring a glass of wine in tow as we amble along, taking in the sights, the sounds, and the wondrous perfumes of the garden at night. Despite the scourge of mosquitoes, my garden continues to be a terrific respite from the trials and tribulations of the modern world. Spending a few evenings in the garden this summer will probably not completely unplug the television set, but I'm sure your electric bill will go down just a bit.

*Peter Loewer is a garden writer and artist who lives in Asheville, North Carolina. He is the author of more than 15 gardening books, including The Evening Garden.*

# *the* Legend of Hidden Hollow



BY BOB HILL

PHOTOGRAPHS BY MICHAEL HAYMAN

Working beneath the radar, Harald Neubauer is one of the propagation wizards who keeps wholesale and retail nurseries stocked with the latest woody plant selections.

**I**T IS WELL WORTH the dusty trip along winding Buncombe Road in south central Tennessee just to walk with Harald Neubauer through the fields of his family nursery. The vigorous 66-year-old's face is tanned, his hair almost white, his enthusiasm contagious.

Behind him, the sun-bright leaves of thousands of field-grown redbuds—*Cercis canadensis* 'Forest Pansy' and 'Hearts of Gold'—stretch out in long, undulat-

ing ribbons of purple and warm gold toward the surrounding green hills. Continuing the redbud parade are the glossy-green leaves of 'Traveller', a weeping redbud, and 'Silver Cloud', a white-on-green variegated redbud introduced by legendary Kentucky plantsman Theodore Klein.

Their long rows join almost 100,000 other diverse shade and ornamental plants that Neubauer and his son, Alex, have

budded in the field and offer in their Hidden Hollow Nursery catalog.

## **GRAFTING MAGIC**

The trees are the product of an outdoor propagating technique Neubauer all but pioneered; he was the first American nurseryman to bud thousands of magnolias and witch hazels in the field. Budding is a form of grafting in which a single bud of a desired plant is inserted into a slit in the

**Surrounded by rows of field-grown 'Forest Pansy' and 'Hearts of Gold' redbuds, Harald Neubauer carries a harvest of freshly cut budwood.**

*“Harald is one of the great people in the business. He, like the noble Don Shadow, can put roots on a telephone pole.”*

*—Michael Dirr, woody plant expert*

bark of a stock plant. He perfected the technique the hard way—bent like a human horseshoe over his rootstocks for long hours in the Tennessee sun.

“I didn’t want to propagate indoors because I didn’t want to water plants every day,” Neubauer recalls. “I decided to throw the book away and write my own.”

He is still easily able to bend at the waist and place the palms of his hands flat on the ground, but with Alex joining the nursery full-time about nine years ago, Harald has cut back his grafting schedule, which lasts three months each year, from seven days a week to a mere six. “I’m slowing down,” he says.

Father and son will annually bud the 100,000 plants on their 10 acres, well up from the “couple thousand” redbuds Harald budded 22 years ago when he first started the nursery.

The budding understock is either grown from seed or purchased in huge lots. Using irrigation lines, fertilizer, and attention to detail, the Neubauers can annually

coax six to eight feet of growth from each tiny bud. It is “biological magic with a knife, bud sticks, and rootstocks,” says Michael Dirr, a University of Georgia horticulture professor and woody plant expert.

#### **ALWAYS SOMETHING NEW**

Scattered among the long rows of plants are many new selections found by gardening friends around the world and sent to the Neubauers to evaluate and propagate. One of the challenges for plant growers is recognizing worthy new plants; another is meeting the demand for their production. “Harald makes the best of the new varieties available quickly,” says John Elsley, horticultural director of Klehm’s Song Sparrow Nursery in Avalon, Wisconsin.

Neubauer’s intuition and production efficiency both came into play with the introduction of ‘Hearts of Gold’ redbud. The plant, with its golden yellow leaves in spring, was discovered in 2003 growing near a dentist’s office in North Carolina, and was referred to Neubauer by North

Carolina horticulturist Jon Roethling.

“I was told if I needed someone to propagate a redbud, Harald was the man,” says Roethling. “He’s one of the best budders and grafters there is.” So he sent a piece to Neubauer. Within a few years Neubauer had hundreds flowing across his fields, in anticipation of the demand for the new selection.

When Dirr saw ‘Hearts of Gold’ for the first time at the JC Raulston Arboretum in Raleigh, North Carolina, he says, “I could not contain my enthusiasm.” He inquired where he could get one and almost immediately received one sent by Neubauer via a mutual friend. “He already had the plant in production,” marvels Dirr. “He’s always ahead of the curve.”

Steve Hottovy of Beyond Green nursery in Dayton, Oregon, had a similar experience with the ‘Wildfire’ black gum (*Nyssa sylvatica*), which sports dramatic burgundy new growth in spring. At first, Hottovy thought the plant was a photinia that had popped up in a batch of seedlings.



Above: Harald Neubauer and his son and business partner, Alex, right, stand amid a field of a yet-unnamed variegated dogwood variety that features an attractive reddish blush on new growth, left.



**Bud grafting in the field requires a strong back, as Alex Neubauer and a nursery employee demonstrate, above, while budding 'Tennessee Pink' redbuds onto a row of rootstock. The process, left, involves removing a section of bark from the rootstock where a bud of the desired plant, or scion, will be attached.**

He mentioned the plant when Neubauer was visiting Oregon. The following year, Hottovy sent Neubauer some scion wood.

“He sent back eight-foot trees in one season,” Hottovy says. “It was amazing.”

### EARLY UPHEAVALS

It is also amazing that Neubauer ended up in rural Tennessee at all. He was born in 1941 in Silesia, a strongly German area in what is now Poland. When the Russian Army approached the region at the end of World War II, his father, a railroad employee, smuggled out his wife and four children in a railroad car. The family fled to Torgau on the Elbe River,

which, after the war, was part of Communist East Germany.

Neubauer’s childhood playground was littered with the refuse of war: guns, phosphorus grenades, and airplane fuel tanks. His first garden was a collection of small cacti. After about 10 years in Torgau, Neubauer’s father arranged once again to have the family concealed in a railroad car compartment and smuggled past armed guards across the Iron Curtain to West Germany, where he met them.

“It must have been rough on my parents,” says Neubauer. “That was twice they left everything behind.”

### LEARNING THE TRADE

After high school, an uncle with a nursery in Berlin helped Neubauer get a job at a nursery in Elmshorn, where he learned to graft plants such as willows, currants, and gooseberries. The experience got him

hooked. “It seemed like magic,” he says.

In 1964, at 23, he brought what Elsley calls “a traditional nursery background and a European sensibility” to the United States for a one-year apprenticeship at the Shadow family nursery near Winchester, Tennessee. There he worked with Don Shadow, another nursery legend in the making, establishing his American roots. Hidden Hollow would eventually be located only a few miles from Shadow’s nursery.

Neubauer returned to Germany to attend college and after graduation went to work for a veneer manufacturing company. His first assignment was a six-month jaunt along the barely navigable roads of South America in a Volkswagen bus in search of veneer. “It was quite a trip,” he says. “I didn’t speak a word of Spanish.”

Over the next few years, as he traveled through Central and South America,



Harald Neubauer was the first to mass-produce Lavender Twist® weeping eastern redbud (*Cercis canadensis* 'Covey'), a small variety featuring purplish-pink flowers and contorted branches.

Neubauer learned to speak Spanish, English, Dutch, and Portuguese.

He met his future wife, Susie, on a blind date while back in Tennessee for a visit. They were married in 1970 and lived for a time in Honduras. But Neubauer missed propagating plants. "You cut down a lot of trees in the veneer business. I thought it was time to pay back." So the Neubauers decided to return to Tennessee and start a nursery.

### A FAMILY AFFAIR

In the early days, Neubauer raised cattle on the farm while grafting Japanese maples for Don Shadow. But he stubbornly began

field grafting redbuds and witch hazels for himself. "I love witch hazels," he says, but he was told they'd be difficult to sell since they would already have bloomed by the time the garden centers opened in spring. "I said, well, all of Europe can't be wrong because everybody has a witch hazel in their yard," says Neubauer.

Susie Neubauer worked with her husband in the fields and handled the office work. Neubauer honed his techniques while increasing his stock and client base.

Over time, the Neubauers expanded their small house, nursery, and family. Sons Nick and Alex both worked in the nursery, but it was Alex who developed the most in-



### Hidden Hollow Nursery

214 Tanager Hill Lane  
Belvidere, TN 37306.

■ Hidden Hollow is a wholesale nursery and is not open to the public. For information about wholesale plant orders and availability, e-mail Alex Neubauer at amyandalexn@aol.com.

terest in plants and propagation. After attending the University of North Carolina in Asheville, Alex returned to Tennessee to help with the family nursery. Now co-owner of Hidden Hollow, he and his wife, Amy, and their two children live in a house near the propagation fields.

### REDBUDS, DOGWOODS, AND MORE

Of the 100,000 plants they propagate, only about half end up as stock the Neubauers will ship all over the United States and the world. The rest are culled in the interest of quality control. "We have a reputation for good plants," says Neubauer.

Shipping season means 90-hour work weeks for everyone. The Neubauers push to keep the plants going out the door—and their ever-growing customer base supplied—has been matched by another challenge: finding new plants to propagate.

One of Neubauer's most significant contributions to the garden industry, according to Elsley, is "the wider availability and greater selection of redbuds." In addition to 'Forest Pansy', 'Hearts of Gold', 'Traveller', and 'Silver Cloud', there are 'Appalachian Red', a glowing pink-red introduction from the late Max Byrkit of Hagerstown, Maryland; 'Tennessee Pink', a Neubauer introduction with true pink blooms; and 'Royal White', a prolific white-flowered selection.

And redbuds are only part of the show. The fields include dozens of rare cultivars of dogwood (*Cornus kousa* and *C. florida*), yellowwood (*Cladrastis kentukea*), sweet gum (*Liquidambar styraciflua*), tulip poplar (*Liriodendron tulipifera*), magnolia (*Magnolia* spp.), witch hazels (*Hamamelis* spp.), zelkova (*Zelkova serrata*), and black gum (*Nyssa sylvatica*).

Neubauer found this variegated native witch hazel (*Hamamelis virginiana*), which he has cloned at Hidden Hollow Nursery.

## HARALD NEUBAUER'S INTRODUCTIONS

Here are some of Harald Neubauer's favorite selections—both in cultivation and under evaluation.

### **Black gum (*Nyssa sylvatica*)**

'Autumn Cascades' (a weeping form)

'Red Rage' (clean green leaves)

'Wildfire' (red-tipped new growth)

### **Cornelian cherry (*Cornus mas*)**

'Kintoki' (a dwarf cultivar with bright green leaves)

### **Eastern dogwood (*Cornus florida*)**

'Appalachian Spring' (a white-flowered plant resistant to anthracnose)

### **Redbud (*Cercis canadensis*)**

'Appalachian Red' (brilliant reddish, pink flowers)

'Hearts of Gold' (golden-yellow foliage)

'Tennessee Pink' (Neubauer's own selection with a true pink flower)

'Traveller' (a weeper with glossy green leaves)

### **Sweet bay magnolia (*Magnolia virginiana*)**

'Coosa' (dwarf form)

'Green Bay' (evergreen)

### **Sweet gum (*Liquidambar styraciflua*)**

'Slender Silhouette' (can grow 60 feet tall and six feet wide)

### **Tulip poplar (*Liriodendron tulipifera*)**

'Little Volunteer' (dwarf form)

### **Witch hazel (*Hamamelis virginiana*)**

'Little Susie' and 'Little Daddy' (dwarf forms)

'Mohawk Red' (red flowers)

### **Zelkova (*Zelkova serrata*)**

'Ogon' (yellow-green leaves and light orange bark)

The Neubauer propagation fields typically include 35,000 dogwoods, 15,000 redbuds, and 7,000 witch hazels among the other woody treasures.

Eastern dogwood (*Cornus florida*) selections include red-flowered 'Cherokee Chief' and white, double-flowered 'Plena'. Hidden Hollow also offers three new mildew- and anthracnose-resistant dogwoods from the University of Tennessee: 'Appalachian Blush', 'Appalachian Snow', and 'Appalachian Spring'.



**Top:** 'Wolf Eyes' is one of several Chinese dogwood cultivars propagated at Hidden Hollow Nursery. **Above:** Harald Neubauer takes cuttings from a new variety of dogwood produced from a cross between Chinese and American species.

Chinese dogwoods (*Cornus kousa*) include the heavy-blooming 'Milky Way', the pink-flowered 'Satomi', and the green-and-white variegated 'Wolf Eyes'.

There are also his homegrown surprises to be evaluated; the variegated, dwarf, upright, or weeping plants the Neubauers find popping up among their own stock or in the surrounding fields and woods. "Every spring you get new stuff," says Neubauer. "They start coming out like little kids and you want to run over to see what they're turning into."

With his eye for recognizing remarkable plants and his gift for propagating them, Neubauer has helped introduce numerous varieties that might otherwise have been

lost. He "saved many one-of-a-kind plants for us from a single, dying stick of wood," says landscape architect and plant explorer Ozzie Johnson of Chamblee, Georgia.

Neubauer combines his skills with patience, hard work, and a demand for quality. Johnson observes that Neubauer's "uniqueness begins with his honest, open demeanor and hospitality and ends with the great contributions he has made to the introduction of great garden-worthy plants." As Dirr notes, "Our gardens are richer for his passion and efforts." 

*Bob Hill is a columnist for the Louisville Courier-Journal and a co-owner of Hidden Hill rare plant nursery and sculpture garden.*



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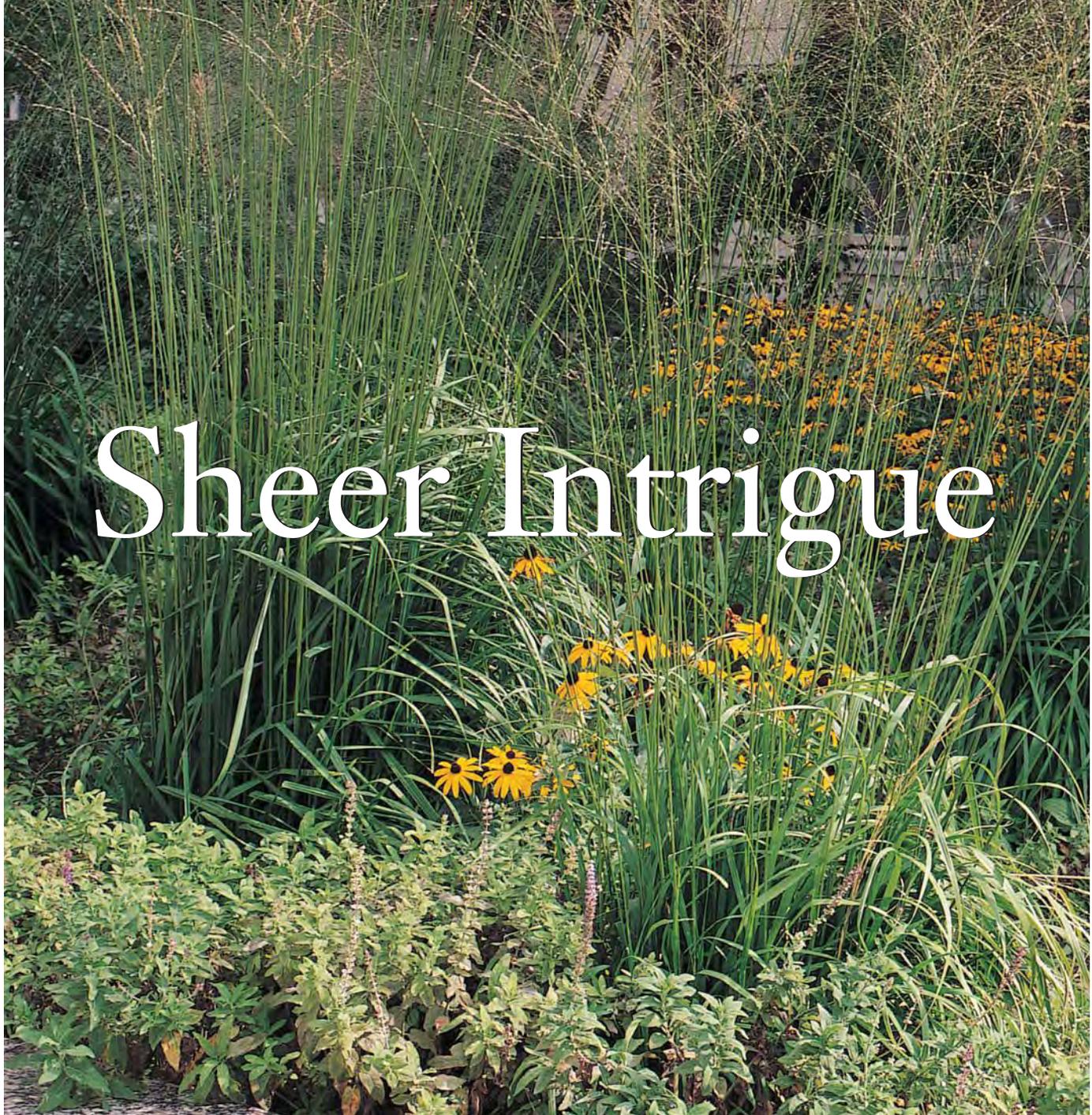
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# Sheer Intrigue

Use plants that have airy, see-through flowers and stems as scrims and screens to add texture, drama, and a hint of mystery to the garden.

BY JANET DAVIS

**M**OST GARDENERS understand the importance of creating a bed or border around plant characteristics such as color, height, and shape. These, after all, are the sturdy building blocks of successful garden design. But there's another, more ethereal quality shared by a relatively small roster of plants that makes them ideal for

adding movement, light, and even a sense of mystery to a planting scheme.

These are the “see-through” or “scrim” plants. In theater parlance, a scrim is a gauzy, transparent curtain that allows the audience to see through it to a scene being played out in the background. In garden design, it defines a plant that fulfills its own role while letting viewers look

through it to other plants or distant corners of the garden. See-through plants can also be used to create seasonal effects; for instance, serving as a partial screen around a patio or pool in summer, to soften but not completely obscure the view.

The best see-through plants feature tall, wiry stems or very loose, airy flowers or inflorescences that move easily in the wind,

**The tall stems and airy panicles of purple moor grass provide a delicate screen through which clumps of rudbeckia blooms are revealed.**



**Above:** The narrow, spiky, olive green leaves of dasyliirion weave a loose scrim through this garden of cacti and succulents. **Left:** In early summer, the tall, loosely arranged blooms of meadow rue (*Thalictrum rochebruneanum*) rise above blue-green foliage to contribute a seasonal scrim and gentle movement to the mixed border.

swaying in delicate contrast to their more stolid neighbors. If placed well, their leaves look spectacular backlit by late-day sun. Ideally, their foliage should be very fine or grow in a basal clump that does not interfere with the hazy effect above.

### HERBACEOUS PERENNIALS

Perennials with tall, branching stems topped with cloudlike inflorescences composed of numerous tiny flowers are excellent to use as gauzy screens.

Giant kale (*Crambe cordifolia*), with its coarse basal leaves and tiny white flowers held aloft on airy stems is one; lime-loving baby's breath (*Gypsophila paniculata*) with its masses of tiny, white, summer flowers is another; and false aster (*Boltonia asteroides*) topped with small, white daisies in early fall is a third.

These plants look lovely screening other perennials, of course, but really sparkle in front of dark-leaved shrubs such as the ninebark (*Physocarpus opulifolius*) cultivar



## DESIGN TIPS

■ Since the scrim effect is a visual one intended to engage viewers, it's best achieved with tall or mid-sized plants that can be enjoyed at eye level while sitting or standing in the garden.

■ Keep your combinations simple and dramatic. While it's fine to use drifts of the same scrim plant in front of drifts of more substantial plants, don't layer more than one type of see-through plant or the design will look cluttered.

■ Many see-through grasses are beautiful when backlit, but for backlighting to be successful, you need to determine the track that the sun follows over your garden and situate plants in such a way that late afternoon sun shines behind them and is not blocked by obstacles such as fences or trees.

'Monlo' (Diabolo®) or purple smoke bush (*Cotinus coggygria* 'Purpurea').

Of the many meadow rues (*Thalictrum* spp.) with loose panicles of tiny blossoms, two of the best see-throughs are *T. rochebruneanum* and *T. delavayi* 'Hewitt's Double'. Though the latter might lean a little without staking, the effect of its small pink or white flowers twinkling in front of other early summer shade-lovers such as astilbe is magical.

For midsummer effect, try gaura (*Gaura lindheimeri*), a native of the American Southwest beloved for the fluttery effect of its white and pink flowers, held above the foliage on arching stems. Excellent cultivars include 'Crimson Butterflies' (two to four feet with crimson flowers) and 'Whirling Butterflies' (two to three feet with white flowers). Golden lace (*Patrinia scabiosifolia*) has chrome-yellow, late summer flowerscapes that make a brilliant scrim for other late bloomers such as red cardinal flower (*Lobelia cardinalis*) and fall-blooming asters. Most patrinias have mustard-yellow flowers, but *P. villosa* has white flowers and grows up to three feet.

Many perennials feature tall, wiry stems topped with colorful, button or bottlebrush flowers that seem to dance in front of a contrasting foliage or floral



**Top:** Yellow false oxeye (*Heliopsis helianthoides*) and purple spiked gayfeather (*Liatris spicata*) are easily viewed through the wispy white blossoms of baby's breath (*Gypsophila paniculata*). The delicate flowers of *Gaura lindheimeri* appear to hover above the foliage like butterflies.

background. Renowned Dutch garden designer Piet Oudolf is fond of using the dark red flowers of Japanese burnet (*Sanguisorba tenuifolia* 'Purpurea') and greater burnet (*S. officinalis*) as a scrim, sometimes in front of the feathery white blooms of white fleecflower (*Persicaria polymorpha*). As he notes in his book, *Designing with Plants* (Timber Press, 1999): "Their being spaced out on stems means

that it is possible to see through clusters of buttons; they are effectively transparent, in the same way that groups of narrow stems are transparent."

Perennials with a similar habit include Macedonian scabious (*Knautia macedonica*) with its burgundy-red pincushion flowers; giant scabious (*Cephalaria gigantea*) with small yellow flowers on rangy stems; and shade-loving master-

## MORE SEE-THROUGH PLANTS

Plant Name	Height/Width (ft.)	Description and Bloom Time	USDA/AHS Zones
<i>Actaea simplex</i> 'Brunette' (autumn snakeroot)	3–4/2	dark purple, fernlike foliage and tall, arching stems of purple-tinted, white flowers in fall	4–8, 12–1
<i>Agastache rupestris</i> (sunset hyssop)	1½–3/1½	aromatic leaves and spikes of orange flowers with lavender calyces in summer	5–9, 9–1
<i>Artemisia lactiflora</i> (white mugwort)	5/2	deeply cut leaves and long-lasting, loose, white flower heads from late summer to fall	3–7, 7–1
<i>Aruncus dioicus</i> (goatsbeard)	4–6/3–4	large, fernlike leaves, loose pyramidal panicles of white flowers in early summer	3–7, 7–1
<i>Chaerophyllum hirsutum</i> 'Roseum'	2/2	tiny soft pink flowers in showy umbels from late spring to early summer	6–9, 9–6
<i>Dasyliirion texanum</i> (sotol)	5–8/5	long, narrow, stiff, pointed leaves emerge from crown; white flowers in summer on five-foot stalk	8–11, 12–10
<i>Deschampsia cespitosa</i> (tufted hair grass)	6/4–5	tussock forming evergreen grass with arching panicles of silvery spikelets in summer	5–9, 9–1
<i>Limonium latifolium</i> (sea lavender)	2/1½	basal leaves with wiry, loosely branched stems of lavender-blue flowers in late summer	7–9, 9–7
<i>Pennisetum alopecuroides</i> (fountain grass)	2–5/2–4	tufted grass with linear leaves and oblong panicles of green or purple spikelets in summer	6–9, 9–6
<i>Sporobolus heterolepis</i> (prairie dropseed)	1½–2/2	clump forming grass with bright green leaves and drooping panicles of pale pink flowers in late summer	3–8, 10–2

wort (*Astrantia major*) with small blossoms in white, rose, and red. Then there are the spiky flowers of sea hollies (*Eryngium* spp.) and the prairie native rattlesnake master (*Eryngium yuccifolium*), which are loosely-branched, architectural perennials that tolerate dry conditions.

A good American native see-through is culver's root (*Veronicastrum virginicum*), a summer bloomer that features candelabra spikes of white, pink, or lavender flowers. And the creamy-white spires of the tall, summer, and fall snake-roots (*Actaea* spp.) look luminous placed in front of a dark-green hedge. Other plants that have slender or airy spikes include rusty foxglove (*Digitalis ferruginea*) and drought-tolerant Russian sage (*Perovskia atriplicifolia*).

### GRASSES

Ornamental grasses with tall, wispy inflorescences can be dramatic scrim plants, responding to the smallest breeze with constant movement and swishing sound. Among the best are the tall moor grass cultivars (*Molinia caerulea* subsp. *arundinacea*) 'Skyracer' and 'Transparent'—an Oudolf favorite—whose strong but slen-



The stiff, steely blue flowers of amethyst sea holly (*Eryngium amethystinum* 'Sapphire Blue') provide both architectural interest and a view of the bright blooms of maiden pinks (*Dianthus deltoides* 'Flashing Lights') in the background.



der stems and airy flowers make a delicate veil and a delightful foil to summer daisies such as false oxeye (*Heliopsis helianthoides*) and sneezeweed (*Helenium autumnale*).

The zingy little flowers and seeds of native switch grass (*Panicum virgatum*) are constantly in motion and look lovely screening the big, bold flowers of swamp hibiscus (*Hibiscus moscheutos*). Similarly, the airy flowers of prairie dropseed (*Sporobolus heterolepis*) make a lively, textural scrim for other prairie natives, such as pink-flowered *Echinacea purpurea*.

## Resources

**Designing With Plants** by Piet Oudolf. Timber Press, Portland, Oregon, 1999.

**Encyclopedia of Grasses for Livable Landscapes** by Rick Darke. Timber Press, Portland, Oregon, 2007.

**Planting Design: Gardens in Time and Space** by Piet Oudolf and Noël Kingsbury. Timber Press, Portland, Oregon, 2005.

Many grasses with thin, silky leaves and flowers, such as tufted hair grass (*Deschampsia cespitosa*), look transcendent when backlit by late-day sun. Other excellent see-through grasses are pink muhly grass (*Muhlenbergia capillaris*); blue oat grass (*Helictotrichon sempervirens*); feather reed grass (*Calamagrostis xacutiflora* 'Karl Foerster'); giant feather grass (*Stipa gigantea*); and Mexican feather grass (*Nasella tenuissima*).

## BULBS AND ANNUALS

Bulbs and annuals can also have a see-through effect. Drumstick allium (*Allium sphaerocephalon*) is a hardy summer bulb with spherical, crimson flowers on bobbing stems. 'Lucifer' crocosmia (*Crocsmia xcrocosmiiflora*) bears numerous

**Top left:** Pink muhly grass (*Muhlenbergia capillaris*) bears thin three-foot-tall flower stems in late summer and fall. **Left:** The airy flowers and narrow gray-blue leaves of blue oat grass (*Helictotrichon sempervirens*) lighten a bed of brightly colored flowers.





Clump-forming Mexican feather grass (*Nasella tenuissima*), above, blooms throughout summer, adding a thin screen between other plants and gentle movement in the garden. Right: Fairy wand (*Dierama pulcherrimum*) grows from a corm and bears small pink, purple, or white flowers on wiry stems that grow three to six feet tall.

scarlet flowers on arching stems in early to midsummer. A more unusual choice is fairy wand or angel's fishing rod (*Dierama pulcherrimum*), a native of southern Africa that has small pink, purple, or white flowers on slender dancing stems to six feet. Grow this plant in free-draining soil where it will receive regular water in summer.

As for annuals, lacy-leafed umbellifers such as dill (*Anethum graveolens*), fennel (*Foeniculum vulgare*), and bishop's lace (*Ammi majus*) have sparse umbels consisting of hundreds of small florets. These plants have the added benefit of catering to a variety of pollinators and other beneficial insects, but they also self-sow readily, so be sure to deadhead them.

And there's no livelier see-through annual than Brazilian verbena (*Verbena bonariensis*) with its butterfly-friendly purple flowers topping tall, wiry stems. Try this self-seeder in a mass planting of *Zinnia angustifolia* 'Profusion Orange' for spectacular summer color.



### GETTING STARTED

The best way to perfect a planting scheme using see-through plants is to do a little research first, checking out some of the plants mentioned here in books and at botanical gardens and snapping photos of good combinations you come across in your travels. (For a few design tips, see the box on page 30.)

Above all, make sure your cast of "screen stars" performs well in your own

garden. In warmer areas, for example, delphiniums can be divas, and fennel tends to self-sow aggressively in the mid-Atlantic region and in California. But once you've assigned the starring roles and directed a few performances, the scrim scenes in your garden are sure to garner rave reviews from all who see them.

*Janet Davis is a freelance writer and photographer based in Toronto, Ontario.*

# Evening Primroses

Conjure magic in your garden at dusk with the diverse members of the genus *Oenothera* and its relations.

BY MARCIA TATROE

**T**HE DIVERSE evening primrose clan lays claim to some of the largest and showiest flowers of America's native flora. Brightening roadsides from coastal Florida to the deserts of California, these intrepid wildflowers are also among the most amenable to garden culture. So, why aren't evening primroses in every American garden? A major reason is that of almost 200 species of annuals, biennials, and perennials from a wide variety of habitats across North and South America, only a dozen or so of the showiest evening primroses have made their way into cultivation. Many big-name retail purveyors of herbaceous perennials offer nary a one.

This snub might be due to the slightly vexing habit evening primroses have of closing their flowers during the heat of the day, so when garden centers are open, the flowers are not, making these otherwise desirable plants a hard sell. This trait is more obvious in sun-drenched climates—and not all species of evening primroses close in the daytime. In regions where the weather is misty or skies are generally overcast, even evening-blooming varieties may deign to stay open all day.

## THE GENUS AT A GLANCE

Evening primroses belong to the genus *Oenothera*, and are closely related to *Calylophus* (see sidebar, page 38). Both are members of the evening primrose family (Onagraceae), which includes other American natives such as gaura (*Gaura* spp.) and clarkia (*Clarkia* spp.).

There is much disagreement about the derivation of the genus name, but it appears to be a case where a name connected with a different genus was assigned without a clear rationale. Reportedly,



Missouri evening primrose (*Oenothera macrocarpa*) blooms from late spring to early autumn.

*Oenothera* combines the Greek *oinos* ("wine") with *thera* ("booty") because—according to one source—consumption of evening primrose root allowed the im-

biber to drink more wine than might be prudent.

Flowers are four-petaled and the color yellow predominates, but a few species, most notably *Oenothera caespitosa*, are white, and several of the yellow species have white variants. Many of those with white flowers have pink undertones that become more pronounced as they age. Certain selections of *O. speciosa* are true pink. For the most part, the flowers are an inch or two in diameter, but, in a few cases, they are enormous, reaching up to six inches across. All have the satiny, luminescent quality typical of flowers that bloom at night and so rely on reflected moonlight to attract night-flying pollinators such as hawk moths. Most are also sweetly scented.

Foliage varies but is generally narrow or lance shaped. In more than one species, the leaves are every bit as attractive as the flowers, their edges ruffled or the surface silvery. Leaves or stems of several cultivars have a reddish cast that is typically more pronounced in spring or autumn.

In form, evening primroses run the gamut from stiffly upright to low and spreading. The latter are ideal for cascading over walls. Smaller, more compact types are unbeatable for rock gardens, particularly in areas where summers are too hot and dry for true alpinists. Taller evening primroses are striking fillers for the traditional border or meadow planting. Dryland western species add color to xeriscapes.

Seeds form in late summer in elongated capsules—some with prominent papery wings—that turn brown as they mature.

### CARING FOR EVENING PRIMROSES

Garden culture is as variable as the evening primroses' wide geographic distribution suggests, but most are obligate sun-lovers. Many will not bloom unless sunshine is full on their face. In general, they grow best if planted in free-draining soil; western species in particular succumb if the soil retains moisture in winter.

Evening primroses have few pests or disease problems when their cultural requirements are met. One exception is the flea beetle, which, in bad years, can filigree the foliage in short order. Kelly Grummons of Timberline Gardens in Arvada, Colorado, recommends controlling these pests with lemon-scented dish soap mixed three to five tablespoons per gallon of water and sprayed once a week for up to five weeks starting when the beetles first appear in June. Insecticidal soap or horticultural oil is also effective.

### WESTERN SPECIES

The bulk of evening primroses native to the western half of the United States are short and best suited to rock gardens, used as accents along dry water courses, or placed at the front of xeric borders. Two exceptions are Bridges evening primrose (*O. longissima*, USDA Zones 6–9, AHS Zones 10–6), found in Bridges National Monument in Utah and throughout the Great Basin region, and Organ Mountain evening primrose (*O. organensis*, Zones 5–8, 9–5), from the Organ Mountains in New Mexico. Although rare in cultivation and usually only available through seed exchanges, both are easy to start from seed and have large, showy flowers.

*Oenothera longissima* grows in microclimates where moisture collects. It reach-



Borne in summer, the fragrant flowers of *Oenothera caespitosa* can be four inches across.

es three to four feet in height and produces pale yellow flowers from mid- to late summer. It is short-lived but can self-sow, and seedlings are easy to dig up and transplant. Also yellow, but with a sherbety-orange wash, Organ Mountain evening primrose is the longest enduring evening primrose in my garden, at 15 years and counting. It reaches two feet tall when watered weekly and blooms on and off all summer.

Of the western evening primroses, *Oenothera caespitosa* (Zones 4–8, 8–1) is unquestionably the most widely recognized and beloved. Depending on local custom, you might find this wildflower referred to as morning lily, tufted evening

primrose, handkerchief plant, gumbo lily, rockrose, or alkali lily. Whatever you call it, *O. caespitosa* is ubiquitous along roadsides, from the western edge of the high plains of Nebraska and the Dakotas, west to the scrub deserts of California, and south into Arizona and New Mexico. Despite its hardiness, this plant performs best in semi-arid regions. It tolerates pure clay in badlands habitats but is more successful in gardens if the soil is moderately well drained and when watered once or twice a month; it does not tolerate wet feet.

The silky white flowers of *O. caespitosa* can be as large as four inches across, each petal forming a perfect heart. The fragrant

flowers open late in the day, and, in a few subspecies, fade to pink the following morning before collapsing at midday. After the first flush of flowers in late spring, *O. caespitosa* blooms on and off throughout the growing season, each rainstorm bringing forth another flush of flowers. Silvery gray leaves, slightly furry to the touch and irregularly toothed along their margins, are typically held in a ground-hugging rosette. *Oenothera caespitosa* subsp. *eximia* is the exception—its 12-inch-long stems arch out from the center like legs on a spider.

In his book *Jewels of the Plains* (see “Resources,” below), the late Claude Barr called *Oenothera brachycarpa* “an unequalled treasure for the night garden.” Now generally reclassified as *O. howardii* (Zones 4–9, 9–4), this treasure remains mostly undiscovered, even though it grows on dry, rocky hillsides over much of the interior West. When winter and

spring rains have been generous, its luminous, saucer-sized flowers light up the foothills west of Denver near my home.

The sweetly fragrant flowers, which bloom from May through August, open at dusk and close by mid-morning, fading to bronze—hence the common name bronze evening primrose. Its sage green foliage is as distinctive as the flowers, the wavy margins of each leaf edged in white.

I suspect *O. howardii* is not in every xeric garden west of the Mississippi only because it is so similar to the Missouri evening primrose, which is much more widely available. While not nearly as drought tolerant as *O. howardii*, its eastern cousin can handle a greater range of cultural conditions.

### EASTERN EVENING PRIMROSES

The Missouri evening primrose (*O. macrocarpa*, Zones 5–8, 8–3) is abundant across the central states on dry prairies, badlands, and bluffs. The flowers are spectacular, three inches across and radiant, traffic-stopping yellow. So sensitive are these flowers to changing light conditions that once, when my husband and I were trying to photograph them in a friend’s garden, we observed the flowers open and close as clouds passed overhead.

The botanical name for Missouri

evening primrose, sometimes called Ozarks sundrops, has been a source of confusion and controversy over the years. Originally named *O. macrocarpa* by its discoverer, plant explorer Thomas Nuttall, it was published as *O. missouriensis* in *Curtis’s Botanical Magazine* in 1813. The misspelling has in many cases been corrected to *O. missouriensis*, but some botanical detective work in the 1960s restored Nuttall’s original name.

Plants are variable, with several subspecies and selections, mainly distinguished by differences in foliage. The leaves of the type species, Missouri evening primrose (*O. macrocarpa* subsp. *macrocarpa*), are glossy and dark green. Those of Fremont’s evening primrose (*O. macrocarpa* subsp. *fremontii*), from the chalk hills of Nebraska and Kansas, are long, narrow, and silvery. A newly introduced cultivar from High Country Gardens (see “Sources,” this page), ‘Shimmer’, lives up to its name, with bright yellow flowers and silver-gray leaves that resemble a California poppy.

From dry habitats in Kansas and south through the Texas panhandle, *O. macrocarpa* subsp. *incana* ‘Silver Blade’ is another stunner with its large blue leaves frosted silver. Selected for red stems that stand out against silvery foliage, *O. macrocarpa* ‘Co-

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Although individual flowers of *Oenothera fruticosa* are only two inches across, they appear in showy clusters throughout summer, forming a colorful groundcover.

## MORE EVENING PRIMROSES

Name	Height	Flower Color	Notable Features	Origin	USDA/AHS Zones
<b>Hooker's evening primrose</b> ( <i>Oenothera elata</i> var. <i>hookeri</i> )	2–3 feet	pale yellow, aging to orange	good in mixed borders	California, Mexico	Zones 7–9, 9–7
<b>Magic evening primrose</b> ( <i>O. glazioviana</i> syn. <i>O. erythrosepala</i> )	5 feet	pale yellow	flowers open like clockwork at dusk	of cultivated origin	Zones 3–8, 8–1
<b><i>Oenothera versicolor</i></b> <b>'Sunset Boulevard'</b>	2 feet	pale pinkish orange	can be grown as an annual	species native to South America	Zones 5–9, 9–6
<b>Saltillo evening primrose</b> ( <i>Oenothera stubbei</i> , syn. <i>O. drummondii</i> )	up to 1 foot	pale yellow	good groundcover for xeric gardens	Baja, Mexico	Zones 7–9, 9–7



Left to right: *Oenothera glazioviana*, *Oenothera versicolor* 'Sunset Boulevard', *Oenothera stubbei*.

manche Campfire', selected by Harlan Hamernik of Bluebird Nursery in Clarkson, Nebraska, is also a real knockout.

All subspecies of *O. macrocarpa* tend to sprawl, making them ideal for cascading down walls. To keep plants more compact, cut long stems back to the center foliage rosette at any time during the growing season. Although they are drought tolerant, supplemental watering guarantees more and larger flowers. Good drainage in winter is vital. Stephanie Cohen, author of *Perennial Gardener's Design Primer*, reports that the selection 'Silver Wings' performs well in her Pennsylvania garden. Extreme humidity in the South is another matter entirely. In the experience of Tony Avent of Plants Delight Nursery, none of the *O. macrocarpa* varieties he has tried have survived the humid and moist summers of Raleigh, North Carolina.

Gardeners in damp, humid regions do have some choices, however. Common evening primrose or sundrops (*O. fruticosa*, Zones 4–8, 8–1) is native to the eastern United States and excels in the South and in the Midwest. Its flowers are yellow

and only two inches across, but they are displayed in clusters, so you get a lot of bang for your buck. And its flowers stay open during the day.

There are a dozen or so named selections available with subtle variations in



'Cold Crick' is a cultivar of *O. fruticosa* with foliage that turns bright red in autumn.

flower color. 'Fyrverkeri' (Fireworks), for example, has orange-red buds and burgundy fall foliage. This particularly floriferous cultivar was one of the top-rated performers among evening primrose selections during a five-year evaluation of the genus conducted at the Chicago Botanic Garden in Glencoe, Illinois (see "Resources," page 36). The buds on 'Sonnenwende' (Solar Solstice) are deep red and the leaves become reddish in autumn. Avent and Cohen are both partial to 'Cold Crick', a floriferous selection introduced by Peggy Rowley of Cold Crick Nursery in Virginia. It grows eight to 12 inches tall and has bright yellow flowers.

Common evening primrose can survive dry spells in the East, but extended drought will kill it. These plants look their best with regular watering but have a tendency to drop their lower leaves late in summer. If they become unsightly, prune them back to their basal foliage.

A few evening primroses are nomadic. But as long as they are sited with care, even aggressive spreaders can have their uses. And care is definitely the watchword for

## CALYLOPHUS: THE OTHER EVENING PRIMROSE

Variouly called sundrops and evening primroses, the genus *Calylophus* consists of long-lived perennials and subshrubs invaluable for xeric gardens and landscapes. *Calylophus* plants are distinguished from oenotheras by yellow



*Calylophus hartwegii* flowers have wrinkled petals typical of the genus.

square-shaped flowers with wrinkled petals that could have been fashioned from crepe paper. They also have persistent, slightly woody, stems. These wildflowers bloom all summer if watered once a week, but they can withstand significant drought in xeric plantings. All are native to harsh places in the West and are quite hardy.

Fendler's sundrops (*Calylophus hartwegii* subsp. *fendleri*, Zones 5–8, 8–5) bears two-inch-wide clear yellow flowers that age to pale orange. They open at the end of the day and close late the following morning. Leaves are green on foot-long stems that tend to sprawl. The flowers of lavenderleaf sundrops (*C. lavandulifolius*, Zones 4–8, 8–4) are similar but paler yellow and the foliage is grayish-green.

Sawtooth evening primrose (*C. serotulus*, Zones 3–9, 9–4) is more shrub-like, typically 10 inches tall, with small but profuse flowers that stay open during the daytime. A compact selection called 'Prairie Lode' bears larger, fuller flowers on a six-inch plant. —M.T.

the seductively pretty showy evening primrose (*Oenothera speciosa*, Zones 5–8, 8–1). This is one of the few plants I have actually evicted from my garden—after it crossed a three-foot-wide concrete sidewalk and smothered an entire flowerbed on the other side. My experience is not unique; Avent calls it one of the worst weeds he's ever encountered.

There is no question that *O. speciosa* is an attractive perennial. Sweetly scented and day-blooming, it produces flowers in such profusion that they nearly obscure the plant—and they keep coming all summer long on stems 12 to 18 inches tall. White forms are more

through Oklahoma and New Mexico. The only safe place to grow tenacious groundcovers such as *O. speciosa* or *O. pallida* might be a median strip in the middle of a wide boulevard or a dry, rocky slope where nothing else will grow.

### UP TO THE CHALLENGE

The evening primrose's rarity in American gardens might also be another one of those cases where familiarity breeds contempt. We gardeners have a long history of turning up our noses at any wildflower that grows along roadsides or in vacant lots, deeming them too common for the garden proper.



Despite its name, showy evening primrose's (*Oenothera speciosa*) flowers open during the day. This plant can spread aggressively, so be sure it is contained in the garden.

northerly in origins and generally more winter hardy than their pink southern counterparts. This species tolerates extreme humidity and does best with weekly watering. Long, hot, dry spells can kill it in desert climates. There are several named selections, among them white-flowered 'Alba' and 'Woodside White', and pink 'Rosea' and 'Pink Petticoats.' The pink-flowered cultivar 'Siskiyou' was also rated highly during the evaluation at Chicago Botanic Garden.

Westerners have their own bad actor in the invasive pale evening primrose (*O. pallida*), which hails from sandy places in Wyoming and South Dakota, and south

But recent trends are beginning to reflect new attitudes. We are starting to value our native plants, especially those that can take care of themselves. And when it comes to plucky, few native wildflowers can hold a candle to the evening primrose. The verspertine selections offer a perfect excuse to gather friends in your garden at dusk to watch as the buds unfurl and the pollinators arrive to do their thing.

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# Hardy Plants *for cool-climate gardens*

These reliably hardy perennials, shrubs, and trees thrive in cold-weather regions.

BY CAROLE OTTESEN



IT IS NOT surprising that many gardeners tend to think of low temperature as the be-all, end-all limit to plant survival. This notion has been reinforced by what we have read and the way that plants are sold. The tags on nursery containers and the descriptions in many plant catalogs and other garden literature often measure plant suitability only by the

degrees of cold a plant will tolerate corresponding to the hardiness zones of either the U.S. Department of Agriculture's now very out-of-date Plant Hardiness map or—for Western gardeners—*Sunset* magazine's Climate Zone Map.

The publication of the American Horticultural Society's Heat Zone Map in 1997 encouraged us to examine what we

have been conditioned to disregard: Heat can be as great a barrier to plant performance and survival as is cold.

In fact, some plants *like* it cold. Legions of plants inhabit the planet's frosty regions. When they are transplanted into gardens, they live better, longer, or at all only where winter temperatures plummet and summers are cool.

The preference for a cooler climate may not always be obvious to those of us who garden in more temperate climes. Perennials such as Joe Pye weed (*Eupatorium maculatum*), Canada mayflower (*Maianthemum canadense*), fireweed (*Epilobium angustifolium*), and trillium (*Trillium grandiflorum*) seem to grow and flower satisfactorily in the South. It isn't until we see their behavior in the wee zones, where they multiply into vast colonies, that their clear preference for cold climates is manifest.

Likewise, some of the most outstanding stars in northern gardens—lilacs, lupines, and peonies, for example—may survive below the Mason-Dixon line, but they never put on quite the same dazzling show that they present in northern gardens. Nor do lady's mantles (*Alchemilla* spp.), coral bells (*Heuchera* spp.), and certain lilies seem as lush, big, and healthy in USDA Zone 7 as they do in Zone 5.

When heat causes plants to fail, the "aha!" moment, when the gardener realizes it's the *temperature* that's causing the problem, can be slow in coming because the effects of heat on plant performance can cause a gradual demise that is attributed to, and often invites, other problems. At other times, heat's effect on a treasured plant is swift and devastating. Some plants simply can't abide it.



**Above:** Bunchberry (*Cornus canadensis*) blooms abundantly in May and June, then sporadically throughout summer. **Top right:** Its showy fruit has been used to thicken sauces and puddings.



Some plants that merely survive in warmer climates grow with wild abandon in cooler locales. Left: Spotted Joe Pye weed colonizes a hillside in Canada. Right: Cool summers are required for lupines to perform best.

### THE ICE QUEEN

Rhodora (*Rhododendron canadense*, USDA Hardiness Zones 3–6, AHS Heat Zones 6–2) is the poster child of the chilly weather plant, one that demands moist cold to survive. It doesn't take well to domestication either, but grows freely and blooms beautifully in the wild. This propensity prompted Ralph Waldo Emerson to write:

*Rhodora! if the sages ask thee why  
This charm is wasted on the earth and sky,  
Tell them, dear, that, if eyes were made  
for seeing,  
Then beauty is its own excuse for Being.*

Unique among native azaleas, the rose-purple flowers have a more deeply divided corolla, elongating the petals and lending them a tousled appearance. The flowers always seem both too vivacious and disproportionately large for the modest shrublets. Like many native azaleas, rhodora is deciduous and stoloniferous. Unlike most, it rarely grows over three feet tall in the moist-to-wet areas where it colonizes hummocks. Those who canoe the boundary waters between Minnesota and Ontario in May are treated to splendid displays of rhodora in bloom.

With few exceptions, rhodora can only be enjoyed in the wild. But, thanks to the University of Minnesota's Woody Landscape Plant Breeding and Genetics Program, gardeners can enjoy azaleas with

rhodora genes and some of rhodora's winning characteristics in their own backyards.

Since 1957, the Woody Landscape Plant Breeding program has developed azalea cultivars "sufficiently hardy for USDA Zone 4," states Associate Professor Stan Hokanson. One of the program's stars is Lilac Lights™, a cross of *R. canadense* and *R. ×kosteranum*, made in 1979. It captures the vivacity of rhodora's flowers; long, tousled lavender petals with a contrasting purple blotch.

"Lilac Lights is an improved version of 'Orchid Lights'—an earlier hybrid—that possesses stronger lower flower petals," says Hokanson. "It is also a larger plant than 'Orchid Lights' that flowers on average one-and-a-half weeks later."



Lilac Lights grows just over three feet tall but spreads to four or five feet wide. Unlike its rhodora parent, this azalea has been domesticated and adapts easily to life in the garden.

### GOOD PLANT, BAD RAP

Not all wild beauties require chromosomal domestication. Just as it is, sheep laurel, (*Kalmia angustifolia*, Zones 1–6, 6–1) would be a popular garden plant by any other name. But this low-growing native shrub suffers from bad publicity. Its common names—lambkill, wicky, calfkil, and sheep-poison—attest to the toxic nature of its narcotic leaves and do little to recommend a potentially good plant for cold gardens.



Rhodora, left, puts on a spectacular flower show in late spring. Lilac Lights, above, owes its showy flowers to its rhodora genes.



Sheep laurel (*Kalmia angustifolia*) grows only one to three feet tall, but up to five feet wide, and blooms in late May and June.

Its flowers are more dome-shaped and, typically, more deeply colored than those of its southern relative, mountain laurel (*K. latifolia*), blooming pink to red in June. Like mountain laurel, sheep laurel is evergreen, but it is significantly smaller, ranging from one to three feet tall, depending upon exposure. It is extremely hardy and tolerates a wide range of soil textures, but grows best in moist, well-drained acidic soil in full sun or light shade.

Uncommon in the trade, sheep laurel can be found at native plant sales and the occasional nursery. Cultivars include the compact 'Royal Dwarf,' the white-flowered, stoloniferous 'Candida,' dark-rose flowered, stoloniferous 'Hammonasset,' and two selections with lustrous leaves that originated in Maine, 'Kennebago' and 'Poke Logan'.

### COVERING COLD GROUND

Cultivated bearberry, also called kinnikinnick (*Arctostaphylos uva-ursi*, Zones 2–6, 6–1), is easier than sheep laurel to find in the trade but harder to find in the wild. Historically, bearberry grew wild across a broad swathe of the northern tier of North America, from British Columbia to

Labrador, and south along mountain ranges into California and Virginia.

Bearberry's usefulness contributed to its disappearance in natural areas; today, it is listed as rare, endangered, and extirpated in parts of its natural range. Not only were the berries eaten, the leaves were smoked, used to tan leather, and have been put to medicinal uses since Roman times. Highly astringent, the leaves were used to treat urinary diseases as well as disorders of the kidneys.



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A far better use of bearberry is as a groundcover. A subshrub, it stays under a foot high, but its trailing stems root slowly outward to six feet or more. In spring and summer, small lily-of-the-valley type flowers appear. Waxy white to palest pink, the flowers bear witness to bearberry's heath family ties and, consequently, its needs.

Bearberry thrives in well-drained, sandy, acidic soils in full sun to very light shade. While tricky to transplant, once established, this tough, low-growing evergreen will survive in extreme cold, wind, infertile rocky, bone-dry soil, blistering sun, or salt spray and needs no pruning or fertilization.

Older cultivars of bearberry include 'Vancouver Jade', a vigorous introduction from University of British Columbia Botanical Garden in Vancouver, with larger, glossier leaves that turn wine-red in the fall, and 'Massachusetts', a disease-

**Bearberry (*Arctostaphylos uva-ursi*) is an excellent groundcover for dry, sunny sites with infertile, acidic soil.**

## EXPERTS' PICK OF COLD-HARDY PLANTS BY REGION



### MIDWEST: WOODLAND PLANTS FOR SHADY GARDENS

Neil Diboll, president of Prairie Nursery in Westfield, Wisconsin, calls these “the hardiest of the hardies, everything you could expect in a perennial: tough, long-lived, low maintenance, and tolerant of extreme cold as well as heat.”

- American wild ginger** (*Asarum canadense*, Zones 2–8, 8–1)
- False Solomon's seal** (*Smilacina racemosa*, Zones 4–9, 9–1)
- Lady fern** (*Athyrium filix-femina*, Zones 4–9, 9–1)
- Large flowered bellwort** (*Uvularia grandiflora*, Zones 3–7, 7–1)
- Northern maidenhair fern** (*Adiantum pedatum*, Zones 3–8, 8–1)\*
- Wild geranium** (*Geranium maculatum*, Zones 4–8, 8–1)

\*needs shelter from strong wind.

### SOUTHWEST: SHADE-TOLERANT PLANTS FOR DRY CLIMATES

David Salzman, president and chief horticulturist at High Country Gardens in Santa Fe, New Mexico, suggests the following plants for dry, shady places.

- Comfrey** (*Symphytum* 'Hidcote Blue', Zones 4–7, 7–1)
- Horehound** (*Marrubium* sp. 'Green Apple' or 'Apple Green', Zones 4–9, 9–1)\*
- Plumbago** (*Ceratostigma plumbaginoides*, Zones 5–9, 9–4)
- Prairie poppy mallow** (*Callirhoe involucrata* var. *tenuissima*, Zones 4–6, 7–1)\*\*
- Yarrow** (*Achillea millefolium* 'White Wonder', Zones 3–9, 9–1)

\*an obscure reseeding *Marrubium* that thrives in dry shade

\*\*semi-shade or dappled shade

### ALASKA: DOUBLE-DUTY PLANTS FOR EXTREME WEATHER

Co-author of *Chicken Soup for the Gardener's Soul*, Marion Owen, the UpBeet Gardener from Kodiak, Alaska, likes these plants because they provide food and garden interest.

- Chives** (*Allium schoenoprasum*, Zones 4–8, 12–1)
- Currants** (*Ribes hudsonianum* and sp., Zones 1–5, 5–1)
- Johnny jump-up** (*Viola tricolor*, Zones 3–9, 12–1)
- Red-twig dogwood** (*Cornus sericea*, syn. *C. stolonifera*, Zones 3–8, 8–1)
- Rhubarb** (*Rheum rhabarbarum*, Zones 3–8, 8–1)

—C.O.

resistant bearberry with abundant flowers and fruits. The long-lasting red berries, technically “drupes,” are eaten by bears and also provide an important food for other wildlife.

In addition to *A. uva-ursi*, some new *Arctostaphylos* selections have been introduced through the Plant Select® program. Administered by Denver Botanic Gardens and Colorado State University with horticulturists and nurseries throughout the Rocky Mountain region, this program finds and promotes the best plants for landscapes and gardens from the intermountain region to the high plains. Two cultivars of an interspecific hybrid bearberry (*Arctostaphylos* × *coloradensis*, Zones 4–8, 8–3), Mock Bearberry™ manzanita and Panchito™ manzanita, were chosen in 2005 and 2006 respectively. “Both are cold hardy to USDA Zone 4b and hardy to about 7,000 to 7,500 feet elevation. Both came from the Uncompahgre plateau in western Colorado,” says Jim Klett, professor and Extension landscape horticulturist at Colorado State University in Fort Collins. Both bloom between February and April and “are xeric once they are established,” says Klett.

Like bearberry, bunchberry (*Cornus canadensis*, Zones 2–7, 7–1) makes a good groundcover and is named for its brilliant red drupes that also have been used both medicinally and in cooking. Another common name, puddingberry, derives from its use in making traditional New England plum pudding.

Fortunately, bunchberry is abundant. It grows from coast to coast in Canada and the northern United States and on mountaintops further south. It thrives wherever summers are mild and acid soil stays cooler than 65 degrees Fahrenheit.

A tiny, three-to-six-inch shrublet, bunchberry cohabits with blueberries and other heath family plants in moist, well-drained soil. It will grow in sun, but in shade, bunchberry spreads outward by rhizomes and by seed into vast, thickly populated colonies. As it covers the ground, cleanly cut whorls of leaves present appealing and uniform evergreen to semi-evergreen texture that become red to mahogany in color in fall.

In May and June and sporadically through the summer and into fall, showy white dogwood-type flowers appear. As



The arching branches of the rowan tree (*Sorbus aucuparia*) bear white flowers in spring followed by brilliant red berries. Right: Folklore attributes magical powers to the rowan tree's glossy berries.



with dogwood trees (*Cornus* spp.), the true flowers are actually small, encircled by white bracts that look like petals.

Bunchberry flowers pollinate curiously and explosively. When an insect lands on one of the true flowers, the flowers catapult pollen onto the visitor, a phenomenon that lasts only a micro-second. Scientists speculate that the explosion disperses pollen onto the body of the insects where it is harder for them to eat it, thus enhancing the chances for the pollen to be transferred to another flower.

### SUPER-NATURALLY HARDY

Berries are a lasting and reliable ornament in northern gardens that have the added

advantage of supporting wildlife. Following “abundant, showy, and long-lasting” June flowers, the berries of the American mountain ash (*Sorbus americana*, Zones 3–5, 6–1) provide “an equally abundant fruit harvest for our birds,” says Nova Scotia gardener and birder Beth Kent. Even in the midst of the North’s extravaganza of blazing fall foliage, the mountain ash’s berries are standouts.

The extremely hardy mountain ash is the perfect size and shape for a residential landscape. Reaching about 20 feet tall, it also makes a good specimen tree. The leaves are sumac-like and deciduous. ‘Dwarfcrown’ (Red Cascade™) is a compact cultivar that grows only about 15 feet tall.

Bill Cullina, director of horticultural research for the New England Wild Flower Society, is partial to showy mountain ash (*S. decora*, Zones 2–7, 7–3), which has a similar native range to American mountain ash but flowers and sets fruit a week or two later. “It’s a beautiful tree, and I frankly prefer it to American mountain ash for both foliar and fruit effect,” writes Cullina in his book *Native Trees, Shrubs, and Vines: A Guide to Using, Growing, and Propagating North American Woody Plants* (Houghton Mifflin, 2002).

While the mountain ash is valued in northern North America, its European counterpart, the rowan, (*Sorbus aucuparia*, Zones 4–7, 7–1) has enjoyed thousands of years of

adulation in northern Europe and is another good choice for cool-climate gardens. Its common name, “rowan,” reveals the awe in which this plant was held. “Rowan” is derived from the word *rune*, which means “magical” or “secret” (from the Old Norse *rogn*, an ancient word that figures in Scandinavian mythology).

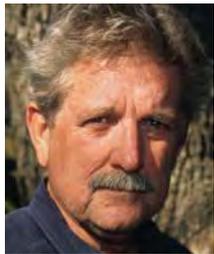
It isn’t too hard to imagine why our ancestors deemed a plant magical when it remained unscathed and insouciant in the face of cold so deadly, it threatened human life. If not magical, plants that revive to bloom lustily in the tentative springs that follow fearsome winters are awe-inspiring. Impervious to ice and snow, these hardy survivors bloom and bear fruit in places where the temperature plummets and icy winds howl through the bitter nights—and they like it that way.

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

## Steve Martino: From Heretic to Hero in the Desert Southwest

by Linda McIntyre

**L**ANDSCAPE ARCHITECT Steve Martino has been designing gardens with native plants for more than 30 years, long before it was considered “cool.” Even more impressive, he began doing it in a place—Phoenix, Arizona, and its environs—where much of the landscaping followed a regionally inappropriate and uninspired pattern of lawn and foundation plantings.



Martino has received many awards for his pioneering efforts. In 2006, the American Society of Landscape Architects (ASLA) presented him with the ASLA Design Medal. As Reed Kroloff, dean of the Tulane University School of Architecture, said in his letter nominating Martino for the medal, “Without Martino’s influence, Phoenix would be wall-to-wall Bermuda grass. What would be left of the water table could be carried around in a Mason jar.”

This year, Martino is the recipient of the 2007 American Horticultural Society Landscape Design Award. Linda McIntyre caught up with him recently in the busy three-person office of his firm, Cactus City Design, to talk about his work creating gardens that promote the beauty of the desert landscape.

**Linda McIntyre:** Having studied art and architecture in college, how did you wind up in landscape design?

**Steve Martino:** I feel all architects should be landscape architects; the designers of buildings should not turn the site over to others. I had planned on being an architect, but early in my career, I had a chance to work on a project that included several buildings as well as the spaces in between. The latent landscape architect in me began to emerge, and I found that engaging the full site really added to the project.

I took a job with a landscape architect for a couple of years to learn some skills. During that time, I started looking more critically at the landscaped areas we live in and realized the desert ecosystem was more interesting than anything in the city! I saw the desert as a model for how to landscape.

**What sparked your interest in using native plants?**

While I was with the landscape architect, we worked on a townhouse project next to a remnant desert site. We were using Mediterranean plants—they’ll live in the



PHOTOS COURTESY OF STEVE MARTINO



Left: Peaks in the Phoenix Mountains Preserve provide a rugged backdrop for this residential yard designed by Steve Martino. A water trough reflects the natural beauty of the sky and mountains. Surrounding it are plants native to the Sonoran Desert, including mesquite (*Prosopis velutina*), ocotillo (*Fouquieria splendens*), desert iron wood (*Olneya tesota*), brittlebush (*Encelia farinosa*), and blue palo verde (*Parkinsonia florida*).

Opposite page: Echoing the desert mountains both in color and in spirit, the undulating wall on this commercial property sets off a colorful border of creosote bush (*Larrea tridentata*), octopus agave (*Agave vilmoriniana*), Eaton's penstemon (*Penstemon eatonii*), desert marigold (*Baileya multiradiata*), and other native species.

desert but they need a lot of attention and irrigation. Next to the property there was all of this great mesquite (*Prosopis* spp.) and creosote bush (*Larrea tridentata*). When I asked why we were using high-maintenance Mediterranean plants when those others would grow naturally in our conditions, I was told they were “weeds.” That answer wasn’t good enough for me.

**How did you find plants for your projects before there was an established native plant movement and a network of growers?**

I found a local nurseryman, Ronald Gass, who knew just about every plant in the desert. I’d bring him seeds and we’d also go out collecting together in southern Arizona and Mexico. I even worked for him as a propagator for a while.

It’s been a great relationship from the beginning, when I needed a source for native plants and he needed a market. He started out growing plants in soup cans collected from local elementary schools. He has a big operation now—Mountain States Wholesale Nursery in Glendale, Arizona—and I’m still working with him.

**How do you use native plants in your designs?**

I sometimes call my approach to design “weeds and walls.” I like to contrast the forms of our desert plants with hardscape. The sun here is so bright that it flattens out texture and washes out color. Plants such as cactus cast great shadows; they act as a sort of sundial against a wall.

**Beyond their aesthetics, are there other qualities that draw you to natives?**

Native plants are tough; I consider them “high tech.” They represent the state of the art of the evolution of a place. We recently had a freeze out here that wiped out exotic plants all over town, but the natives, which have long adapted to the idiosyncrasies of our climate, survived.

Native plants also attract a variety of pollinators and predators to the garden, making it a habitat.

**Have other designers and home gardeners started to embrace natives?**

A lot of my clients come to Phoenix from other places, and they really want the desert experience. When I was starting

out decades ago, the plants I used seemed so unusual that they stopped people in their tracks. Now, the trend in the design world is to use native plants in regionally harmonious landscapes. I like to say I’ve gone from heretic to hero by doing the same thing!

**Do you have favorite plants?**

I love trees. Mesquite and palo verde (*Parkinsonia* spp.) are a couple of particular favorites. I love their bark, the beans, their habit, the way they evoke the desert.

But each and every plant can offer a fascinating look into another world. I once had a volunteer plant in my own garden that turned out to be jimsonweed (*Datura stramonium*). One night, I saw a huge, dinner-plate size moth on it, a moth that only pollinates that plant. I lived in the city and the moth lived out in the country, but somehow it found this plant. When these sorts of things happen, you realize that a garden is much more than decorative.

*Linda McIntyre is a freelance writer who lives in Washington, D.C.*

## Avoiding the Stranglehold of Dodder

by Kathryn Lund Johnson

**A**LTHOUGH NOT A COMMON PEST, the parasitic plant, dodder (*Cuscuta* spp.), can be a serious problem when it occurs. Of the approximately 170 species worldwide, about 50 are found in the United States, most of which are annuals. The genus is included on the Federal Noxious Weed List administered by the USDA's Animal and Plant Health Inspection Service, although some native or widely scattered species are excluded from "noxious" status.

### A DEPENDENT NATURE

The plant's characteristics have earned it such epithets as devil's-hair, witches' shoelaces, lover's knot, and tanglegut. Depending on the species, the plants produce small pink, creamy, or white flowers in clusters from late spring through fall on filamentlike green, orange, or yellow stems covered with minute leaves resembling scales. The fruit is about one-eighth inch in diameter and usually contains four seeds encased in a thick heat- and fire-resistant coat that allows the seeds to retain viability for many years. A single dodder plant can produce more than 16,000 seeds.

Seedlings produce a tiny ephemeral root but negligible amounts of chlorophyll and sugars and, therefore, must quickly locate a host plant to provide food. "Dodder seedlings that fail to find a host usually die in about 10 days," says Colin Purrington, associate professor of biology at Swarthmore College in Pennsylvania.

Twining counterclockwise in its search for a host, the dodder vine coils around everything in its path. Once a suitable host is found, dodder encircles it in a stranglehold. Adventitious rootlets called haustoria develop from tiny buds where the dodder stem touches the host, penetrating the host and extracting carbohydrates, minerals, and water. The root that had originally anchored the dodder to the soil is no longer needed and dies off.

Growing three to six inches per day, the vine produces more and more haustoria until both hosts and non-hosts near them are barely perceptible beneath a tangled mass of the parasite's spaghetti-like stems.



Delicate-looking flowers belie the strangling ways of five-angled dodder (*Cuscuta pentagona*).

Younger, less established plants usually succumb to the parasite after an attack. A mature host is more likely to survive, but in a weakened state that makes it more susceptible to disease. Dodder also transmits a number of plant diseases. An infestation can have huge economic implications for vulnerable crops such as alfalfa, beets, corn, cotton, flaxseed, potatoes, and tomatoes.

### SNIFFING OUT A HOST

How does dodder locate a preferred host? Professors Consuelo M. De Moraes and Mark C. Mescher and graduate student Justin B. Runyon, all of Pennsylvania State University, set out to find the answers.

They knew that tomato is a preferred host of five-angled dodder (*Cuscuta pentagona*). "In a series of experiments using *C. pentagona* and tomato plants, we ruled out the 'random' theory," Mescher says. "We discovered instead that the dodder was drawn to the host by detecting the airborne chemical compounds that were released by the host plant."

Volatiles released by plants serve an important purpose: drawing pollinators to flowers; stimulating surrounding plants to produce chemical deterrents to pests; and luring predators of pests. In this situation, however, the parasite detects the scent of another plant's volatiles and uses them to its advantage!

## PREVENTION AND CONTROL

The best way to control dodder is to avoid introducing it in the first place. Once established, the parasite is almost impossible to eradicate. Care must be taken to avoid transporting seed inadvertently from an infested area to another location by way of clothing, shoes, or gardening tools.

In the home garden, dodder can be hand pulled before seed is produced; after haustoria appear, this usually requires removal of both the dodder and the host plant. Household vinegar has proven to be effective in controlling dodder when it is sprayed on the seedlings before they attach themselves to the host plant. Removed dodder plants should be placed in a securely sealed plastic bag and disposed of in the trash. In some cases, it may be necessary to use post-emergent herbicides to kill both the parasite and the host to prevent further spread of the dodder.

Growing non-host plants is a reliable and effective measure for home gardens. Non-host plants may also be used as rotation plants in areas where dodder has

## Resources

**Dodder** by W.T. Lanini, et al., University of California–Davis. [www.ipm.ucdavis.edu/pdf/PESTNOTES/pn\\_dodder.pdf](http://www.ipm.ucdavis.edu/pdf/PESTNOTES/pn_dodder.pdf).

**Introduction to Parasitic Flowering Plants** by Daniel L. Nickrent and Lytton J. Musselman, American Phytopathological Society. [www.apsnet.org/education/IntroPlantPath/PathogenGroups/Parasiticplants](http://www.apsnet.org/education/IntroPlantPath/PathogenGroups/Parasiticplants).

been a problem. The parasite may appear the first year, but it will be weak and unable to establish itself. Planting with dodder-free seed is crucial. It's also important to remove any weed hosts of dodder, including pigweed, nightshade, lambsquarters, and field bindweed.

W. Thomas Lanini, weed ecologist for the University of California's cooperative Extension, has been studying dodder control in relation to the planting dates

of crops and ornamentals. Lanini provides an example: "Garlic is susceptible to dodder when it is planted in the spring. Dodder generally germinates and emerges in the spring, so the seedling growth of the two coincides, making garlic an easy mark for dodder. Planting garlic in the summer or fall reduces its chances of becoming a host plant. Timing a planting can offer an alternative method of control to weeding or using herbicides.

Using transplants is also helpful. "Dodder has a difficult time attaching to the larger stems of the transplants, compared to the stems of the smaller seedlings," says Lanini.

While dodder remains a threat both in the wild and in gardens, awareness of this parasite is increasing, along with research that may help control it. Home gardeners can do their part in stemming its spread through pre-emptive measures and proper cultural practices.

*Kathryn Lund Johnson is a freelance writer who lives in Middleville, Michigan.*

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## Horticultural News and Research Important to American Gardeners

### WEED-BUSTING GROUNDCOVERS

If you're looking for a pesticide-free way to control weeds in your garden, why not beat them at their own game and grow plants that can out-compete your uninvited guests. This is exactly what re-



Master Gardeners plant a roadside groundcover research plot with a mix of species.

searchers from Cornell University, in cooperation with the New York State Department of Transportation, decided to try when looking for non-toxic alternatives to dealing with weeds along roadsides and other managed landscapes.

In a five-year study of more than 150 herbaceous perennials, the researchers found that “the most successful groundcovers exhibited the ability to establish rapidly, overwinter in USDA Zones 5 to 7, and form a dense canopy of foliage that reduces light penetration at the soil surface, thereby suppressing weed germination.”

Some of the top low maintenance, pest resistant performers include catmint (*Nepeta* ‘Walker’s Low’), fall goldenrod (*Solidago sphacelata*), lady’s mantle (*Alchemilla mollis*), and several *Sedum* species. “For shady sites, we love ferns such as Japanese painted fern (*Athyrium niponicum* var. *pictum*),” says Leslie Weston, associate professor of weed management and natural products chemistry at

Cornell who worked on this study. “They suppress weeds and provide color and texture in the landscape.”

A full list of plants in the study, complete with each plant’s weed-suppressing rating and other cultural information, can be found on Cornell’s Allstar Groundcovers website ([www.gardening.cornell.edu](http://www.gardening.cornell.edu)).

### MEADOW RUES FOR NORTHERN GARDENERS

The genus *Thalictrum*, a member of the buttercup family (Ranunculaceae), comprises about 130 species of rhizomatous or tuberous perennials, many of which offer attractive fernlike foliage and airy flowers to gardens. The Chicago Botanic Garden recently released a comparative study on 26 meadow rue species and cultivars conducted from 1995 through 2003, which evaluated ornamental traits, disease and pest resistance, cultural adaptability, and winter hardiness.

Kyushu meadow rue (*Thalictrum kiusianum*), native to Japan, was the smallest species evaluated, reaching a mere two inches tall without flowers. The species earned a four-star rating—the highest score possible—for producing abundant pink flowers and exhibiting no winter injury or major disease problems. The



‘Elin’, a hybrid meadow rue, performed well in a Chicago Botanic Garden study.

tallest at 10 feet, the North American native *T. pubescens*, also received four stars for “heavy flower production and robust habits.” Additional top ratings went to nine other taxa including the hybrid ‘Elin’, *T. flavum* subsp. *glaucum*, and *T. rochebruneanum*.

Due to weak flower production, low plant vigor, and excessive winter injury, *T. actaeifolium*, *T. delavayi*, and *T. ichangense* received poor overall ratings.

For a copy of the meadow rue evaluation, call the Chicago Botanic Garden at (847) 835-5440 or visit [www.chicagobotanic.org](http://www.chicagobotanic.org).

### NEW ONLINE SEED AND FRUIT IDENTIFICATION GUIDE

Seeds can range from microscopic to two pounds in weight, and come in an array of colors and shapes. This amazing diversity can make it a challenge to correctly identify them, particularly when it comes to ensuring exotic invasive species don’t end up in the United States.

To help make this job a little easier, scientists with the Agricultural Research Service (ARS) in Beltsville, Maryland, have created an online database called the “Family Guide for Fruits and Seeds.” It contains 418 plant families and more than 3,000 photographs that will help Animal and Plant Health Inspection Service agents, researchers, and others identify the world’s seeds and fruits. Even gardeners who come across an unlabeled packet of homegrown mystery seeds may find it useful. Access the database at <http://nr.ars-grin.gov/sbmlweb/onlineresources/frsdfam/>.

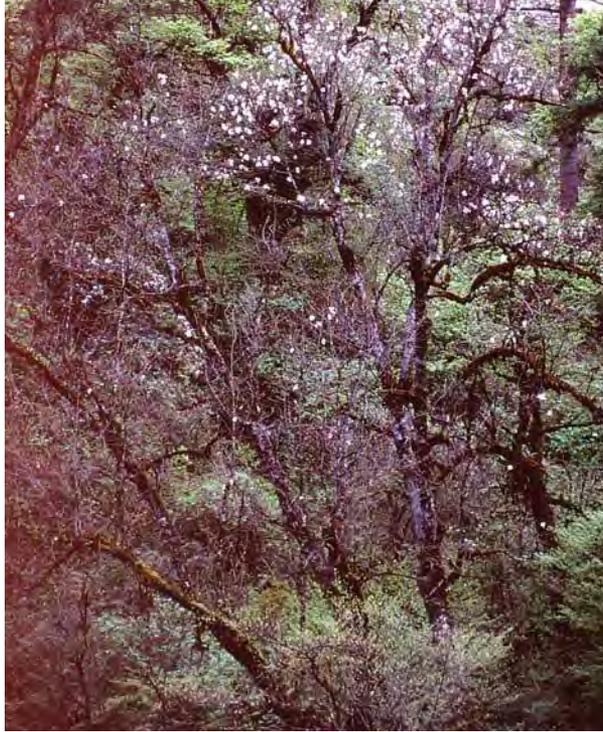
### NATIONAL “CALL BEFORE YOU DIG” NUMBER ESTABLISHED

When planning to build a pond, plant a tree, put in a fence, or start other projects that require digging, it’s important to know the location of underground utility lines. The Common Ground Alliance, an association that works to prevent damage

to underground infrastructure, has set up a new national hotline to “eliminate confusion caused by multiple ‘call before you dig’ numbers across the country.” People anywhere in the United States can dial 811 to have their utility lines marked for free. Operators will route your call to local utility companies who will send out a professional locator in a few days. Learn more at [www.call811.com](http://www.call811.com).

### WILD MAGNOLIAS IN JEOPARDY

According to a recent report from Botanic Gardens Conservation International (BGCI), Fauna and Flora International, and the Global Trees Campaign, many of the world’s wild magnolia species are at risk of extinction. As stated in the *Red List of Magnoliaceae*, 131 out of a global total of 245 species are threatened to become extinct. “The main causes of the decline of *Magnolia* species in the wild are loss of habitat and, for some species, over-exploitation—either for timber or



*Magnolia dawsoniana* growing wild in the Sichuan province of its native China.

medicinal products,” says Sara Oldfield, secretary general of BGCI and one of the authors of the report.

Not only is this “potential catastrophic loss of magnolias” a threat to the family’s

genetic diversity, but these species are also a “highly sensitive indicator” of the forest’s health. “We now have a choice,” says Oldfield. “We can use the new information to conserve these important trees and restore their forest habitats or we can catalogue their extinction.”

Approximately two-thirds of all magnolia species are found in Asia, of which more than 40 percent are native to southern China. According to the report, “half of all wild Chinese magnolias are at risk of extinction.” A similar finding is emerging in the Americas. For example, more than 30 of Colombia’s native magnolia species are in danger of extinction.

For more information, visit the BGCI website at [www.bgci.org](http://www.bgci.org).

### VIRTUAL VEGETABLE PROBLEM SOLVER

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gardeners with pesky problems that can crop up in vegetable gardens, the University of Illinois Cooperative Extension Service has created a new online resource, "Common Problems for Vegetable Crops." Users can search by vegetable or by problem, in either English or Spanish. Insect pests, diseases, and other problems are briefly described with recommended control measures and photographs of each symptom. Visit [www.urbanext.uiuc.edu/vegproblems](http://www.urbanext.uiuc.edu/vegproblems) for tips and suggestions for solving your next veggie pickle.

### NATIVE PLANTS DESIGN CONTEST

Rosicrucian Park, headquarters of the English Grand Lodge of the Rosicrucian Order in San Jose, California, attracts thousands of visitors annually with its large lawns, rose gardens, fountains, and statues. However, to help reduce water use and cut maintenance costs, the Rosicrucian Order wants to replace two of its lawn areas and is inviting the public to help with a new design. The organization is looking for "a brilliant landscape design that complements our Egyptian architecture and gardens, using California native plants that require little to no water once they reach maturity." Two first-place prizes are being offered. The deadline for submission is September 15. For more information, visit [www.rosicrucian.org/nativeplantscontest](http://www.rosicrucian.org/nativeplantscontest).

### PLEDGE TO PROTECT FORESTS

Many insects and plant disease-causing organisms have arrived as stowaways from other countries, devastating North American forests when inadvertently spread by transporting wood products out of infested areas. Because of this, it is illegal to transport firewood across certain state lines or out of quarantine areas.

In an effort to stem the spread of non-native insects and diseases such as emerald ash borers, the Union of Concerned Scientists is asking the public to pledge not to transport firewood from one site to another, an issue that becomes more important as the summer camping season gets into full swing. Instead, they recommend using only local firewood. Make your pledge at [http://ucsaction.org/campaign/5\\_22\\_07\\_firewood\\_pledge](http://ucsaction.org/campaign/5_22_07_firewood_pledge). ☺

*Written by Assistant Editor Viveka Neveln and Editorial Intern Courtney Capstack.*

## PEOPLE and PLACES in the NEWS

### In Memoriam: William Flemer, III

Nurseryman and plant breeder William Flemer, III, died in April in Princeton, New Jersey, at the age of 85. Representing the third generation of the family-run Princeton Nurseries in Allentown, New Jersey, he was known internationally as an innovative plant breeder, introducing many new cultivars of trees and shrubs still widely used today in American landscapes. These include 'October Glory' red maple (*Acer rubrum*), 'Greenspire' linden (*Tilia cordata*), 'Green Vase' Japanese zelkova (*Zelkova serrata*), and 'Princeton Sentry' ginkgo (*Ginkgo biloba*). In total, Flemer held patents on more than 45 trees, shrubs, and vines.



After serving in World War II, Flemer completed bachelor's and master's degrees in botany from Yale University in 1946 and 1947. He then began working at Princeton Nurseries, founded in 1913 by his grandfather, William Flemer, Sr. Working in partnership with his brother, John W. Flemer, he was president of the business from 1972 to 1992. They expanded the business to include grafted and containerized stock on more than 2,500 acres.

Flemer wrote and lectured widely on topics such as plant propagation and shade tree selection and also published four books. He served on the White House Grounds Committee, the U.S. National Arboretum's Advisory Council, and the Visiting Committee for the Arnold Arboretum. He also served on the AHS's Board of Directors from 1973 to 1976.

Among his many professional accolades, he received the International Plant Propagators Society Award of Merit in 1973, the Garden Club of America Medal of Honor in 1983, the Arthur Hoyt Scott Medal and Award from the Scott Arboretum of Swarthmore College in Pennsylvania in 1987, and the American Horticultural Society's Catherine H. Sweeney Award in 1992.

### The Legacy of Polly Hill

Centenarian Polly Hill, known as the founder of the eponymous arboretum in West Tisbury, Massachusetts, died in April at her home in Hockessin, Delaware.



The arboretum preserves her legacy of collecting and growing 1,700 taxa and selecting more than 80 improved varieties of garden plants.

Hill earned a music degree from Vassar College in New York in 1928 but later studied botany and horticulture at Longwood Gardens in Pennsylvania and at the University of Delaware. In her 50s, after she inherited her family's summer home on Martha's Vineyard, she began experimenting with seed-grown varieties of many shrubs and trees including azaleas, dogwoods, magnolias, hollies, and crabapples.

Hill was renowned for the meticulous records she kept as well as her boundless curiosity, patience, and perseverance in the garden. She had a keen eye for superior varieties among her many seedlings, which she often named after her family members. Rather than selling the plants herself, she gave them to colleagues and nurseries to introduce to the horticultural market. In 1996, she established a public arboretum that preserves her 70-acre property on Martha's Vineyard and the plants she cultivated there for four decades.

Over her lifetime, Hill garnered many awards, including the Arthur Hoyt Scott Medal and Award from the Scott Arboretum of Swarthmore College in Pennsylvania in 1990, the Thomas Roland Medal from the Massachusetts Horticultural Society in 1993, and the Catherine H. Sweeney Award from the American Horticultural Society in 1996. She also served on the AHS's Board of Directors from 1964 to 1965 and from 1968 to 1970. ☺

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## Solar Power in the Garden

by Rita Pelczar

**W**HEN DAYTIME summer temperatures soar, the outdoors is often more inviting after the sun goes down. Well-placed lighting extends your enjoyment of the garden into the evening. Paths and steps can be marked off for safe foot traffic, garden features can be highlighted, and a deck or patio can be bathed in the soft glow of lanterns.

Solar lights offer an easy-to-install, economical way to brighten the evening landscape. Unlike standard or low-voltage systems that draw electricity from household current and must be connected to the power source by wires, solar lights can simply be placed in any sunny spot in the garden. And, best of all, they don't cost anything to use.

### TECHNOLOGICAL UPGRADES

Improvements in the past few years have made solar lights more practical than ever. New designs are suited to a wider range of landscaping styles and uses. Solar collectors have become more efficient, and many batteries can be charged even on overcast days. These and other advances translate into so-



**These Two-in-One Flexi Spot Solar Path Lights help illuminate a garden walkway at night.**

lar lights that shine brighter and stay illuminated longer than earlier versions.

Solar lights basically consist of a light fixture and a photovoltaic (PV) cell. The PV cell, which collects solar energy and converts it to electrical energy, is usually located in a panel on top of the fixture, but may be housed separately. For greatest ef-

iciency, the solar collector should be placed in full sun, facing south.

The electrical energy is stored in a rechargeable battery made of nickel metal hydride (NiMH) or nickel cadmium (NiCAD). NiMH batteries have a larger capacity than similarly sized NiCADs; some NiMH batteries can store enough energy for up to five consecutive days before they are recharged.

Low-powered and efficient light-emitting diodes (LEDs) have no filaments and give off minimal heat, lasting much longer than other types of bulbs. Their light can be directed or diffused in a number of ways by reflectors and directional optic devices, depending on the effect desired.

A feature available with some solar lights separates the solar collector from the light fixture, connecting them with a thin, easy-to-hide wire. Separating the components allows illumination within a shady garden, as long as the collector is placed in a sunny spot. This feature makes possible dramatic lighting effects such as uplighting a tree from beneath its branches or spotlighting a garden feature from above by securing the fixture to a branch.

### MORE SOLAR GARDEN PRODUCTS

**Solar fountains** are an easy way to add a dramatic water feature to your landscape and are simple to install. They are available in a wide range of sizes and styles, including single or multiple fountain heads, multi-tiered cascades, floating fountains, and fountain birdbaths. Both Plow & Hearth and Gardener's Supply offer a wide selection.

If your notion of spending an afternoon weeding includes listening to music or the play-by-play of your favorite sports team, consider a **solar radio** such as those offered by the Freeplay Energy Group. No need to worry about outlets, wires, or batteries—the radio runs on batteries charged by the sun, with a wind-up handle as back-up.

Solar Home offers two **solar pest-control devices**: The waterproof Solar Pest Repeller promises to drive away moles and other rodents using sound and vibrations that will protect an area of approximately 6,000 square feet. The aboveground NiCAD battery is recharged by the sun, and the repeller works both day and night. And for mosquito bite protection without chemicals, its Anti-Mosquito Guard emits an ultra-high frequency sound that keeps the pests at bay within a 15-foot radius.



**This attractive birdbath from Solar Home features a solar-powered fountain.**

## Sources

Allsop Home & Garden, Bellingham, WA. (866) 425-5767. [www.allsofgarden.com](http://www.allsofgarden.com).

Freeplay Energy Group, Brown's Summit, NC. (866) 697-7529.  
[www.ordertree.com/freeplay](http://www.ordertree.com/freeplay).

Gama Sonic, Atlanta, GA. (678) 638-6217. [www.gamasonic.com](http://www.gamasonic.com).

Gardener's Supply, Burlington, VT. (802) 660-3500. [www.gardeners.com](http://www.gardeners.com).

Malibu Lights/Intermatic, Inc., Spring Grove, IL. (815) 675-7000.  
[www.malibulights.com](http://www.malibulights.com).

Plow & Hearth, Inc., Madison, VA. (800) 494-7544. [www.plowhearth.com](http://www.plowhearth.com).

Solar Home, Salt Lake City, UT. (866) 786-7763. <http://solarhome.org>.



Above left: Solar strip lighting can help make outdoor steps in sunny locations safer to use at night. Above right: Illuminated "cattail" decorations add whimsy to the evening garden.

### RIGHT LIGHT

Before purchasing solar lights, consider where you want light, what you want to illuminate or what effect you want to create, how long it should stay lit, and what style suits your landscape. Most solar lights feature a sensor that automatically turns the lights on at dark and off during the daylight hours, when their batteries recharge.

Many solar light fixtures are mounted on in-ground stakes that keep them in place, others are freestanding and can be placed on a table or hung on hooks.

Solar path lights are designed for safety as well as aesthetics. The fixtures typically direct the light downward or provide a soft non-directional glow. They needn't be exceptionally bright, but they should mark a path clearly, particularly where it turns or where the level varies.

Some solar path lights, including stepping stones or lit pavers, are designed to be incorporated into a garden path or outdoor stairway. There are even solar edging bricks to outline walkways.

If you need light in a shed, barn, or greenhouse, Gama Sonic offers "Light My Shed," a kit that combines a roof-mounted collector with two eight-watt fluorescent bulbs that, when fully charged, provide up to five hours of illumination.

The range of solar lighting options and the efficiency of their components continues to grow. And as technology advances, the cost of solar lights is beginning to come down—another incentive for going solar in your landscape.

Rita Pelczar is a contributing editor for The American Gardener.

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11 XMAS TREES	17 HYDROSEEDING
12 REFORESTATION	18 LANDSCAPING
13 HYDROPONICS	19 PROPAGATION
14 FIELD CROPS	20 ANTI-EROSION
15 BONSAI	21 ENVIRONMENTAL IMPROVEMENT
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	26 WATER GARDENS

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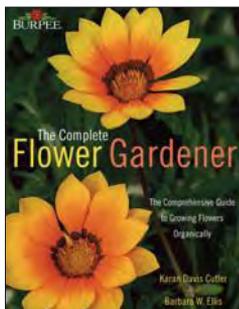
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## Recommendations for Your Gardening Library

### Burpee The Complete Flower Gardener: The Comprehensive Guide to Growing Flowers Organically

Karan Davis Cutler and Barbara W. Ellis. Wiley Publishing, Inc., Hoboken, New Jersey, 2007. 488 pages. Publisher's price, hardcover: \$34.95.

LIVING UP TO the words "complete" and "comprehensive" in its title, this book does far more than just explain how to care for flowers the organic way. It looks like a coffee table book, reads like a work of literature, and works like a how-to or reference manual.



Good soil is the foundation of any organic garden, and so it's not surprising that there's a chapter devoted to that subject, one to managing pests and diseases organically, and another to planting seeds and caring for flowers. The book also focuses on design principles

and color theory, and includes specific suggestions for plant combinations. If you're looking for ideas for a theme garden, you'll find it here with lists of plants to attract butterflies, another for hummingbirds, as well as ideas for an edible flower garden, a "moon" garden, a dyer's garden, and suggestions for specific environments such as a hillside, pathside, and woodland.

About half the book is an encyclopedia of flowers, but this one goes far beyond the usual bulleted basic information about height, bloom time, light and soil preferences, and flower color. Here you'll learn all sorts of fascinating tidbits about each plant. For example, did you know that *Allium moly* was an antidote to Circe's poison, thus protecting Odysseus from being turned into a swine? Or that the name *Coreopsis* is from the Greek for "like a bug" because of the seed's appearance? Hence the plant's common name, tickseed.

You have to read through a lot of text to find the basic information, but, in the process, you'll learn all sorts of interesting things, and the index is helpful if you want to skip right to a specific topic. But beware, you may be looking for average last frost dates for your region and find yourself sidetracked, absorbed in an explanation of phenology, the study of recurring natural signs to predict local weather conditions: "When the dogwood flowers appear/ Frost will not again be here."

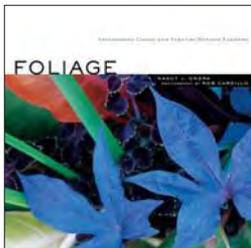
—Catriona Tudor Erler

*A resident of Charlottesville, Virginia, Catriona Tudor Erler is the author of eight garden books, and she has contributed to many more. Her next book, Design Ideas for Home Landscaping, will be published in spring 2008.*

### Foliage: Astonishing Color and Texture Beyond Flowers

Nancy J. Ondra. Storey Publishing, North Adams, Massachusetts, 2007. 304 pages. Publisher's price, softcover: \$24.95.

MY BACKGROUND in textile design has made me a diehard foliage gardener, so I admit to having a predisposed positive bias toward *Foliage*, the attractive and accessible new book by Nancy Ondra. I view arranging differently textured, shaped, and colored foliage plants as a gardener's version of designing an art quilt with printed fabrics ranging from tiny dots to graphic splashes.



Ondra and photographer Rob Cardillo provide newfound inspiration for foliage choices and combinations. For these collaborators, foliage is more than mere space filler in the landscape. Foliage, Ondra writes, "greatly extends the seasonal interest of individual plants, and of the garden as a whole."

Chapters in this useful reference are organized by foliage color: gold-yellow-bronze, red-purple-black, silver-gray-blue, and variegated-multicolored plants. Plant icons indicate spiky, bold, medium, fine, and lacy foliage textures, helping to guide the garden designer in each of us. I especially appreciate that sun and shade foliage plants are identified, as well as the section on how to deal with the common diseases and pests that strike foliage plants.

For each palette, Ondra offers a botanical Latin primer titled "What's in a Name?" For example, many of us already know that *aurea* indicates "gold-colored," but did you know that *flavida* means "yellowish?" Or, how about that *nishiki* means "brocade," as in a patterned fabric?

Plant profiles are the heart of this book, in which Ondra writes with a confident voice. When she describes a plant, I know she's grown it herself. Among Cardillo's photos are several taken in Ondra's own garden in Pennsylvania.

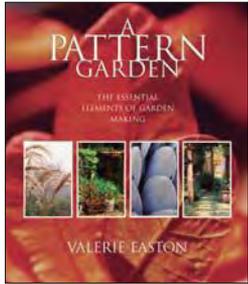
For someone like me, who is still in horticultural shock from leaving Seattle (USDA Zone 8) for Los Angeles (Zone 10), I am grateful for the "alternatives" offered with each plant entry. When I moved to southern California, I left behind a collection of Zone 5 to 8 Japanese maples. Instead, Ondra suggests I try growing selections of African rose mallow or cranberry hibiscus, which have palmately-lobed, maplelike, deep red leaves and grow happily in Zones 8 to 11. That tip alone is worth adding *Foliage* to my shelf.

—Debra Prinzing

*Recently transplanted from Seattle to southern California, Debra Prinzing is a garden and design writer. Her next book, Stylish Sheds & Elegant Hideaways, will be published in 2008.*

**A Pattern Garden: The Essential Elements of Garden Making**  
 Valerie Easton. Timber Press, Portland, Oregon, 2007. 216 pages.  
 Publisher's price, hardcover: \$34.95.

A *PATTERN GARDEN* starts with a simple premise: You can make a garden feel more welcoming and comfortable if you effectively include specific design elements—what the author terms “patterns.” Valerie Easton says in the book’s introduction that she wants to make the garden-making process more accessible for home gardeners by defining what are often intangible experiences or “felt senses.”



She also acknowledges that this book pays homage to *A Pattern Language* by Christopher Alexander (Oxford University Press, 1977), a bible of sorts for architects, interior designers, and anyone trying to make a house become a home. That book influenced Easton for many years before she decided to reinterpret some of its key ideas for gardeners. According to Easton, these design patterns are essential because they “deal with the underlying patterns of behavior and form that shape our experience and stir the emotions.” In other words, they appeal to archetypal human experiences.

Easton has successfully distilled complex design theory into 14 distinct patterns that can be interpreted in countless ways,

regardless of a garden’s size, location, or other factors. They include creating a sense of arrival, instilling feelings of shelter and refuge, making a journey with paths that are relevant to a setting, balancing enclosure and openness, using appropriate scale, creating destinations and focal points, and incorporating water features, containers, and garden art. For example, the “gates” pattern describes various ways to create portals that conceal or frame views into a garden.

Easton discusses both practical and psychological issues to consider in using patterns to foster intrigue, meaning, coherence, and sheer delight. She emphasizes that personalized and relevant renditions of these patterns imbue a garden with an aura of being a special and memorable place.

This book offers an abundance of beautiful photographs and inspiring and well-organized design ideas, but also provides insights into why these things matter. *A Pattern Garden* explores garden making as an enlivening process that draws on every aspect of human experience. It tackles and translates big concepts into language and images that are likely to trigger “aha” moments for the reader. In turn, that’s likely to inspire aha moments in your garden.

—Virginia Small

*A former senior editor at Fine Gardening, Virginia Small is now a freelance writer, editor, speaker, and garden consultant based in Woodbury, Connecticut. She is currently writing a book on gardens of the Berkshires to be published in 2008.*

PHOTO BY ANNE C. ALLEN FROM 2008 GARDENER'S CALENDAR



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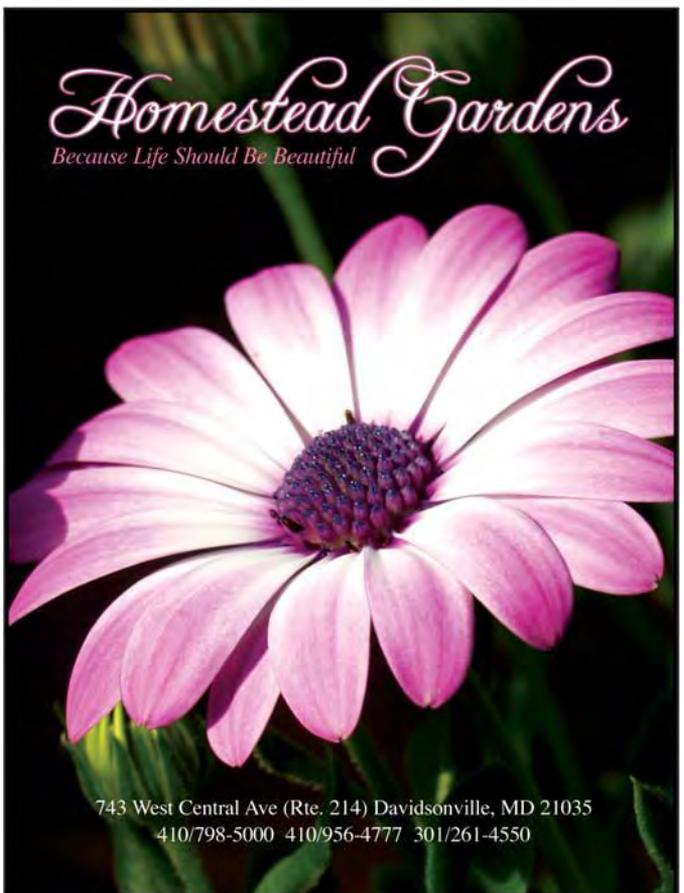
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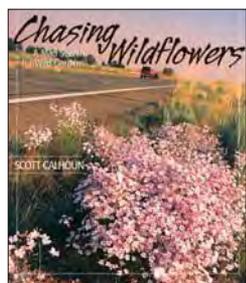


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## Summer Reading

WITH SPRING'S FLURRY of planting, pruning, and weeding done—or mostly so in my case—gardeners finally get to enjoy fresh tomatoes, bouquets of flowers, and other summery delights. However, during the dog days with the heat, humidity, and mosquitoes in full throttle, I find myself darting out of doors only long enough to hose down a few parched plants on the verge of a crispy death. While I wait out the sultry weather, a book starring plants helps me get the rest of my gardening fix. Here are some fun and fascinating titles that just may give the summer's latest beach novels a run for their money.

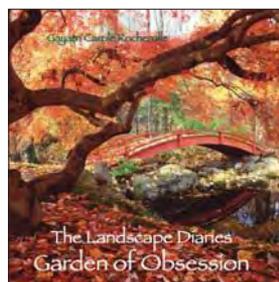
If you're in need of a vicarious road trip, ride shotgun with Scott Calhoun for a rollicking romp around the Southwest in



*Chasing Wildflowers: A Mad Search for Wild Gardens* (Rio Nuevo, 2007, \$16.95). The book chronicles a series of visits Calhoun made to six states from Utah to Texas as well as parts of Mexico over a period of two years to hunt for indigenous wildflowers. A self-confessed plant nerd, Calhoun often pulls over to investigate a promising flash of color on the shoulder of a sun-baked

highway, and does “take pains to correctly identify” the plants he encounters with common and botanical names. He also blends in tidbits about local cuisine (he has quite a propensity for fish tacos), people he meets along the way, and even advice for staying at Motel 6. Many of his wildflower photographs further enliven this compelling book.

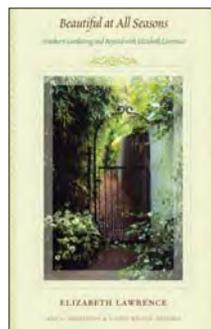
For a divergence into a world of limousines and French chateaus, there's *The Landscape Diaries: Garden of Obsession*



(Ruder Finn, 2007, \$24.95). Aptly named, this engaging tale reads somewhat like a private diary in which Carole Rocherolle, daughter of the late business magnate Lester Avnet, describes how she literally ran away from her privileged youth to marry a member of French nobility. However, after she and her new husband, Jerome, fall

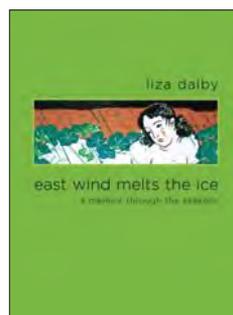
into the nursery and landscape business, they are no strangers to hard work and the rewards it brings. The book follows the 30-year trajectory of their horticultural development, including establishing Shanti Bithi Nursery in Connecticut, traveling the world in search of unusual plants, and the creation of their most important legacy, the private Steinhart gardens in New York, complete with stunning color photographs.

Fans of Elizabeth Lawrence will want to get their hands on *Beautiful at All Seasons* (Duke University Press, 2007,



\$24.95), a new collection of 132 columns this beloved garden writer penned over a period of 14 years for the *Charlotte Observer* beginning in 1957. Those unfamiliar with Lawrence will find themselves enchanted with her thoughtful and conversational writing, akin to a modern day blog. Organized by themes such as “Seasonal Flowers” or “Gardeners and Gardens,” these short pieces range widely over gardening tips and insights as well as places, literature, and people that influenced her. The book even includes a small collection of black and white photographs of Lawrence and her garden.

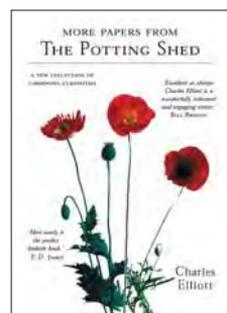
After coming across an ancient Chinese almanac that divides the year into 72 periods of five days each, author Liza Dalby felt



this system makes a lot of sense for gardeners because “every week in the garden is a different season.” In *East Wind Melts the Ice* (University of California Press, 2007, \$24.95), Dalby weaves her observations about the natural world and Asian cultures into eloquent and incisive essays as she charts each of these little seasons in her own garden in Berkeley, California, and in the larger natural world. Part garden

journal and part memoir, this book presents an intriguing new perspective—for Westerners at least—on the minute but inexorable seasonal changes happening every day.

Another essay collection, *More Papers From the Potting Shed* (Frances Lincoln, 2006, \$24.95) comes down more on the



wry side of things. Charles Elliott began gardening in New York and Massachusetts, but for the last 20 years has been ensconced in the British gardening scene. Many of the pieces, derived from a column he wrote for *Horticulture* magazine, take a humorous look at various gardening quirks in these cultures—for example “British hedge-rage” versus Americans who “conduct their lives in full view of their

neighbours (sic), to say nothing of every snoop wandering down the street.” Elliott also weighs in on “a fairly preposterous range of topics, from medieval grafting practices to excuses for banning leaf blowers, from [his] own adventures with birds to the history of guano.”

—Viveka Neveln, Assistant Editor



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## REGIONAL HAPPENINGS

### Horticultural Events from Around the Country

#### NORTHEAST

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

**RAP** JULY 21. **Garden Furniture Design.** Workshop. Berkshire Botanical Garden. Stockbridge, Massachusetts. (413) 298-3926. [www.berkshirebotanical.org](http://www.berkshirebotanical.org).

**RAP** JULY 28. **The Art of Cottage Gardening.** Workshop. New York Botanical Garden. Bronx, New York. (718) 817-8747. [www.nybg.org](http://www.nybg.org).

JULY 28 & 29. **Garden Walk Buffalo.** Garden tour. Buffalo, New York. (716) 879-0123. [www.GardenWalkBuffalo.com](http://www.GardenWalkBuffalo.com).

AUG. 9–12. **Beantown Digs Community Gardens.** Conference. American Community Garden Association. Boston, Massachusetts. (877) 275-2242. [www.communitygarden.org](http://www.communitygarden.org).

#### Looking ahead

SEPT. 11. **The Great Victorian Trees of Chateau-sur-Mer.** Garden tour. Newport Mansions. The Preservation Society of Newport County. Newport, Rhode Island. (401) 847-1000 ext. 154. [www.newportmansions.org](http://www.newportmansions.org).

SEPT. 14. **Gardening in a Changing Climate II.** Conference. New York Botanical Garden. Bronx, New York. (718) 817-8747. [www.nybg.org](http://www.nybg.org).

SEPT. 15. **Art Goes Wild Gardener's Festival.** New England Wild Flower Society. Framingham, Massachusetts. (508) 877-7630. [www.newfs.org](http://www.newfs.org).

SEPT. 22. **Gathering of Gardeners: A Recipe for a Perfect Garden.** Workshop. The Master Gardeners of Cornell Cooperative Extension of Monroe County. Rochester, New York. (585) 461-1000 ext. 225. <http://GatheringOfGardeners.com>.

#### MID-ATLANTIC

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

JULY 20. **Pond Care.** Workshop. Ladew Topiary Gardens. Monkton, Maryland. (410) 557-9570. [www.LadewGardens.com](http://www.LadewGardens.com).

JULY 20. **Woody Plant Conference.** The Scott Arboretum of Swarthmore College. Swarthmore, Pennsylvania. (610) 328-8025. [www.scottarboretum.org](http://www.scottarboretum.org).

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

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

**RAP** JULY 23–27. **EcoExplorers.** Summer camp. The State Arboretum of Virginia. Boyce, Virginia. (540) 837-1758 ext. 242. [www.virginia.edu/blandly](http://www.virginia.edu/blandly).

JULY 24–26. **Penn Atlantic Nursery Trade Show (PANTS).** Pennsylvania Landscape & Nursery Association. Atlantic City, New Jersey. (800) 898-3411. [www.PLNA.com](http://www.PLNA.com).

**RAP** JULY 28. **Water Garden Tour.** The Delaware Center for Horticulture. Gateway Garden Center. Wilmington, Delaware. (302) 658-6262. [www.dehort.org](http://www.dehort.org).

**RAP** AUG. 3. **Using Native Plants in Your Landscape Design.** Lecture. Green Spring Gardens. Alexandria, Virginia. (703) 642-5173. [www.greenspring.org](http://www.greenspring.org).

AUG. 5. **Cactus & Succulent Show.** Brookside Gardens. Wheaton, Maryland. (301) 962-1448. [www.BrooksideGardens.org](http://www.BrooksideGardens.org).

**RAP** AUG. 15 & 16. **Invasive Plants: Research, Removal, and Renewal.** Conference. Mid-Atlantic Exotic Pest Plant Council. Morris Arboretum. University of Pennsylvania. Philadelphia, Pennsylvania. (215) 247-5777 ext. 156. [www.ma-eppc.org](http://www.ma-eppc.org).

#### Looking ahead

**RAP** SEPT. 11, 18, & 25. **Become a Tree Tender.** Tree training workshop. Pennsylvania Horticultural Society. Landsdowne, Pennsylvania. (610) 489-4315. [www.pennsylvaniahorticulturalsociety.org](http://www.pennsylvaniahorticulturalsociety.org).

**RAP** SEPT. 13–15. **Fall Plant Sale.** Lewis Ginter Botanical Garden. Richmond, Virginia. (804) 262-9887. [www.lewisginter.org](http://www.lewisginter.org).

#### SOUTHEAST

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

**RAP** JULY 19. **Roots of Gardening Series.** Lecture. Georgia Golf Hall of Fame's Botanical Garden. Augusta, Georgia. (706) 724-4443. [www.gghf.org](http://www.gghf.org).

**RAP** JULY 23 & 24. **Eastern Region International Plant Propagator's Society Area Meeting.** Yew Dell Gardens. Crestwood, Kentucky. (859) 257-1273. E-mail: [afulcher@uky.edu](mailto:afulcher@uky.edu).

**RAP** JULY 28. **Butterfly Days.** Festival. Fairchild Tropical Botanic Garden. Coral Gables, Florida. (305) 667-1651. [www.fairchildgarden.org](http://www.fairchildgarden.org).

AUG. 1. **Gardens of Japan.** Lecture. Bellingrath Gardens and Home. Theodore, Alabama. (251) 973-2217. [www.bellingrath.org](http://www.bellingrath.org).

AUG. 9–11. **SNA 2007: Researcher's Conference and Trade Show.** Southern Nursery Association. Atlanta, Georgia. (770) 953-3311. [www.sna.org](http://www.sna.org).

AUG. 15–17. **2007 Summer Green Show.** The North Carolina Nursery & Landscape Association Inc. Greensboro, North Carolina. (919) 816-9119. [www.ncnla.com](http://www.ncnla.com).

**RAP** AUG. 16. **Planning Your Autumn Vegetable Garden.** Lecture. Atlanta Botanical Garden. Atlanta, Georgia. (404) 876-5859. [www.atlantabotanicalgarden.org](http://www.atlantabotanicalgarden.org).

AUG. 21. **Tennessee Green Industry Field Day.** Tennessee Nursery & Landscape Association Inc. Franklin, Tennessee. (931) 473-3951. [www.tnla.com](http://www.tnla.com).

#### Looking ahead

SEPT. 6 & 7. **Southern Plant Conference.** Southern Nursery Association. Alabama Nursery and Landscape Association. Mobile, Alabama. (770) 953-3311. [www.sna.org](http://www.sna.org).

**RAP** SEPT. 15 & 16. **Carolinas Dahlia Society Annual Show.** Festival. The North Carolina Arboretum. Asheville, North Carolina. (828) 665-2492. [www.ncarboretum.org](http://www.ncarboretum.org).

#### NORTH CENTRAL

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

JULY 17. **Summer Turf Problems and Solutions for Where You Live, Work, and Play.**

Regional seminar. Ohio Turfgrass Foundation. Centerville, Ohio. (888) 683-3445. [www.ohioturfgrass.org](http://www.ohioturfgrass.org).

**RAP** JULY 26 & AUG. 2. **Math for Gardeners.** Workshop. Chicago Botanic Garden. Glencoe, Illinois. (847) 835-8261. [www.chicagobotanic.org](http://www.chicagobotanic.org).

JULY 27. **NNLA Field Day.** Festival. Nebraska Nursery & Landscape Association. Omaha, Nebraska. (402) 450-7192. [www.nnla.org](http://www.nnla.org).

JULY 28. **Gorgeous Gardens Promenade Walks.** Garden tours. Grout Museum District. Waterloo, Iowa. (319) 234-6357. [www.groutmuseumdistrict.org](http://www.groutmuseumdistrict.org).

**RAP** JULY 28. **Journey Gardening Class.** The Journey Museum and Gardens. Rapid City, South Dakota. (605) 394-6923. [www.journeymuseum.org](http://www.journeymuseum.org).

JULY 28. **Tour Le Jardin.** Garden tour. Elm Brooke Garden Club. Milwaukee, Wauwatosa, and Elm Grove, Wisconsin. (414) 578-2513. E-mail: [gunga\\_din13@hotmail.com](mailto:gunga_din13@hotmail.com).

AUG. 5-11. **25th Perennial Plant Symposium & Trade Show.** Perennial Plant Association. Columbus, Ohio. (614) 771-8431. [www.perennialplant.org](http://www.perennialplant.org).

**RAP** AUG. 7. **MSU Garden Plant Showcase.** Workshop and tour. Michigan State University. East Lansing, Michigan. (517) 355-0249 ext. 1339. [www.hrt.msu.edu/plant\\_tour/MSU\\_showcase.htm](http://www.hrt.msu.edu/plant_tour/MSU_showcase.htm).

AUG. 11. **Wildflower Garden Birthday Bash.** Eloise Butler Wildflower Garden & Bird Sanctuary. Minneapolis, Minnesota. (612) 370-4903. [www.minneapolisparke.org](http://www.minneapolisparke.org).

**RAP** AUG. 25 & 26. **Dahlia Show.** Olbrich Botanical Gardens. Madison, Wisconsin. (608) 246-4550. [www.olbrich.org](http://www.olbrich.org).

#### Looking ahead

**RAP** SEPT. 14-16. **Antiques & Gardeners' Fair.** Franklin Park Conservatory & Chihuly Collection. Columbus, Ohio. (800) 214-7275. [www.fpconservatory.org](http://www.fpconservatory.org).

### SOUTH CENTRAL

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

JULY 20 & 21. **Watermelon Festival and Garden Show.** Valliant City Park. Valliant, Oklahoma. (580) 933-5050. [www.valliantchamber.org/watermelon\\_festival.html](http://www.valliantchamber.org/watermelon_festival.html).

**RAP** JULY 21-29. **Cactus Show and Sale.** Henry Shaw Cactus Society. Missouri Botanical Garden. St. Louis, Missouri. (314) 577-5100. [www.hscactus.org](http://www.hscactus.org).

JULY 27-29. **Iris Rhizome Sale.** Oklahoma Iris

## Wildflower Garden Centennial Celebration

PARTICIPANTS OF this year's American Horticultural Society National Children & Youth Garden Symposium have the exciting opportunity to help celebrate the 100th anniversary of the oldest public wildflower garden in the nation. Various events and celebrations are scheduled at the Eloise Butler Wildflower Garden and Bird Sanctuary in Minneapolis, Minnesota, in honor of this milestone.

Under the concerned petition of schoolteacher Eloise Butler and additional botany colleagues, the Minneapolis Park Board preserved three acres of land on April 27, 1907, as a refuge for native flora. Since then, the Eloise Butler Wildflower Garden and Bird Sanctuary has expanded to comprise 15 acres of woodland, wetland, and prairie ecosystems. The sanctuary resides within the Theodore Wirth Regional Park, the largest regional park in the Minneapolis Park and Recreation system. One full-time garden curator, one seasonal part-time naturalist, and more than 60 volunteers manage the 500 woody and herbaceous plant species and 140 resident and migratory bird species in the park. Open from April through mid-October, the garden receives approximately 60,000 visitors annually.

To help commemorate the centennial anniversary, an Eloise Butler history exhibit is on display at the gardens through September 30. Additional celebrations include an Eloise Butler Birthday Bash on August 11, and "100 Trees for 100 years," a tree planting event and guided tours of the garden, on September 29. For additional information, visit the Minneapolis Park & Recreation Board website at [www.minneapolisparke.org](http://www.minneapolisparke.org) or call (612) 230-6414.



Eloise Butler

## Perennial Plant Association Symposium in Ohio

THE 25TH ANNUAL Perennial Plant Association (PPA) Symposium will be held August 5 to 11 in Columbus, Ohio. This special anniversary celebration features an impressive slate of lectures from prominent industry experts, a trade show, and tours of the area's finest garden centers, nurseries, and public and private gardens. Always a highlight of the yearly calendar for green industry professionals and plant enthusiasts, the PPA symposium is "the only annual program dedicated solely to perennial education." For additional information, please call (614) 771-8431 or visit the PPA website at [www.perennialplant.org](http://www.perennialplant.org).

—Courtney Capstack, Editorial Intern

Society. Will Rogers Garden Center. Oklahoma City, Oklahoma. (405) 843-7130. [www.okhort.org](http://www.okhort.org).

**RAP** JULY 28. **PlantWise: Native Alternatives to Invasive Plants.** Workshop. Lady Bird Johnson Wildflower Center. Austin, Texas. (512) 292-4200. [www.wildflower.org](http://www.wildflower.org).

**RAP** JULY 29. **Iris Show.** Botanica, The Wichita Gardens. Wichita, Kansas. (316) 264-0448. [www.botanica.org](http://www.botanica.org).

AUG. 16-19. **Nursery/Landscape Expo 2007.** Texas Nursery & Landscape Association. Dallas, Texas. (800) 880-0343. [www.tnlaonline.org](http://www.tnlaonline.org).

#### Looking ahead

**RAP** SEPT. 5. **Landscape Design Workshop.** Garvan Woodland Gardens. Hot

Springs National Park, Arkansas. (800) 366-4664. [www.garvangardens.org](http://www.garvangardens.org).

SEPT. 13-17. **Fall National Convention & Rose Show.** American Rose Society. St. Louis, Missouri. (314) 469-6691. [www.arsconventionstl.org](http://www.arsconventionstl.org).

SEPT. 28-OCT. 2. **Get Your Gardening Kicks on Route 66.** Symposium. Garden Writers Association. Oklahoma City, Oklahoma. (703) 257-1032. [www.gardenwriters.org](http://www.gardenwriters.org).

### SOUTHWEST

AZ, NM, CO, UT

**RAP** JULY 19. **Desert Vegetable Gardening 101.** Desert Botanical Garden. Phoenix, Arizona. (480) 941-1225. [www.dbg.org](http://www.dbg.org).

**RAP** JULY 21. **Garden Art Auction.** Western

Colorado Botanical Gardens. Grand Junction, Colorado. (970) 245-9030. [www.wcbotanic.org](http://www.wcbotanic.org).

**RAP** AUG. 4. **Highlands Art Garden Tour.** Denver Botanic Gardens. Denver, Colorado. (720) 865-3500. [www.botanicgardens.org](http://www.botanicgardens.org).

AUG. 10. **Southwest Horticulture Annual Day of Education (SHADE).** Arizona Nursery Association. Scottsdale, Arizona. (480) 966-1610. [www.anza.org](http://www.anza.org).

**RAP** AUG. 25. **Native Seed Collecting.** Workshop. Red Butte Garden and Arboretum. Salt Lake City, Utah. (801) 581-4747. [www.redbuttegarden.org](http://www.redbuttegarden.org).

## WEST COAST

CA, NV, HI

JULY 21 & 22. **Orchid Show.** Kaimuki Orchid Society. Honolulu, Hawaii. (808) 734-3839. [www.bstele.com/mirror/orchids](http://www.bstele.com/mirror/orchids).

JULY 28. **Getting Started Garden Design.** Workshop. The Watershed Project. Youth Science Institute. Saratoga, California. (510) 665-3430. [www.thewatershedproject.org](http://www.thewatershedproject.org).

JULY 28 & 29. **Culver City Garden Club Show & Sale.** Culver City, California. (310) 203-1482. E-mail: [larryebner@netscape.net](mailto:larryebner@netscape.net).

AUG. 11 & 12. **Edible Gardens Festival.** COPIA: The American Center for Wine, Food & the Arts. Napa, California. (707) 259-1600. [www.copia.org](http://www.copia.org).

AUG. 18. **Roof Water Catchment.** Workshop. Occidental Arts and Ecology Center. Occidental, California. (707) 874-1557. [www.oaec.org](http://www.oaec.org).

AUG. 31-SEPT. 3. **Northern California Women's Herbal Symposium.** Black Oak Ranch. Laytonville, California. (707) 824-1429. [www.womensherbalsymposium.org](http://www.womensherbalsymposium.org).

### Looking ahead

SEPT. 4-8. **American Begonia Society Convention.** Palos Verdes Branch of The American Begonia Society. Los Angeles, California. [www.begonias.org](http://www.begonias.org).

SEPT. 16. **Carmel TomatoFest.** Tomato harvest celebration. Carmel, California. (800) 965-4827. [www.TomatoFest.com](http://www.TomatoFest.com).

## NORTHWEST

AK, ID, MT, OR, WA, WY

JULY 20-22. **Sequim Lavender Festival.** Farm tours, crafts, food tastings, and demonstrations. Sequim Lavender Growers Association. Sequim, Washington. (877) 681-3035. [www.lavenderfestival.com](http://www.lavenderfestival.com).

JULY 21 & 22. **Northwest Herb Fest 2007.** Herbal Transitions. Pleasant Hill, Oregon. (541) 736-0164. [www.herbaltransitions.com](http://www.herbaltransitions.com).

JULY 26-28. **East Meets West: Conifer Artistry of Man and Nature.** National meeting. American Conifer Society. Seattle, Washington. (336) 945-0483. [www.conifersociety.org](http://www.conifersociety.org).

JULY 31-AUG. 3. **Nurturing the Written Word: Further Adventures in Creative Garden Writing.** Center for Urban Horticulture. University of Washington Botanic Gardens. Seattle, Washington. (206) 543-3889. [www.wbotanicgardens.org](http://www.wbotanicgardens.org).

**RAP** AUG. 4 & 5. **Anchorage Garden Club Flower Show.** Anchorage Garden Club. Alaska Botanical Garden. Anchorage, Alaska. (928) 770-3692. [www.alaskabg.org](http://www.alaskabg.org).

AUG. 23-25. **The Farwest Show.** Oregon Association of Nurserymen. Portland, Oregon. (800) 342-6401. [www.farwestshow.com](http://www.farwestshow.com).

**RAP** AUG. 25. **Bug Day.** Festival. Idaho Botanical Garden. Boise, Idaho. (208) 343-8649. [www.idahobotanicalgarden.org](http://www.idahobotanicalgarden.org).

**RAP** AUG. 25. **Xeriscapes of the Botanic Gardens.** Summer garden tour. Cheyenne Botanic Gardens. Cheyenne, Wyoming. (307) 637-6458. [www.botanic.org](http://www.botanic.org).

## CANADA

JULY 22. **Plant Show and Sale.** Vancouver Shade Garden Society. VanDusen Botanical Garden. Vancouver, British Columbia. (604) 602-6644. [www.vandusengarden.org](http://www.vandusengarden.org).

AUG 3-9. **International Plant Cold Hardiness Seminar.** University of Saskatchewan. Saskatoon, Saskatchewan. (306) 966-8617. [www.8ipchs.usask.ca](http://www.8ipchs.usask.ca).

AUG. 12-15. **Northern Nut Growers Association Annual Meeting.** Carleton University. Ottawa, Ontario. [www.auntiesocial.net/NNGA98](http://www.auntiesocial.net/NNGA98).

### Looking ahead

SEPT. 8. **Arboretum Auxiliary Plant Sale.** The Arboretum at University of Guelph. Guelph, Ontario. (519) 824-4120. [www.uoguelph.ca/arboretum](http://www.uoguelph.ca/arboretum).

SEPT. 12 & 13. **2007 CanWest Hort Show.** Horticulture trade show. Vancouver, British Columbia. (604) 574-7772. [www.CanWestHortShow.com](http://www.CanWestHortShow.com).

SEPT. 16-19. **Annual Meeting of the Eastern Region of the International Plant Propagators' Society.** Educational sessions, tours, and plant auction. Montreal, Quebec. (631) 765-9638. [www.ipps.org/easternna](http://www.ipps.org/easternna).

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In-kind donations of goods or services by individuals and businesses are an important way of supporting the American Horticultural Society. Perhaps you have something that you no longer need but would be very useful to the AHS staff. Gently used or new items are preferred and arrangements need to be made for items to be delivered to the Society's headquarters in Alexandria, Virginia. (However, there is an exception to every rule, so please get in touch with us to discuss your particular situation.)

To donate a wish list item or to inquire about donations of other products or services, please contact Tom Underwood, Director of Member Programs/COO, by phone at (703) 768-5700 ext. 115 or e-mail [tunderwood@ahs.org](mailto:tunderwood@ahs.org).

Before dropping off an item, please call or send us an e-mail in advance to make sure that we still need it and to help us prepare for your donation. Donations are tax-deductible.

Many thanks to those who have helped support the AHS through your in-kind donations of goods and services.

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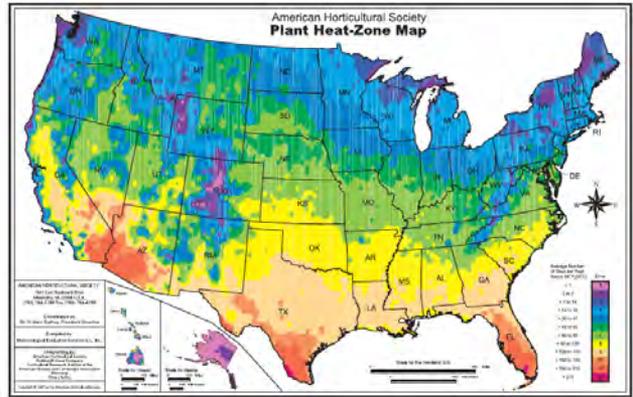
Don't have any of these items but want to help? Please consider a donation to the AHS Annual Fund.

# 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](http://www.ahs.org).



## A–D

- Allium sphaerocephalon** AL-ee-um sfeer-o-SEF-uh-lon (USDA 4–11, AHS 12–1)  
**Ammi majus** AM-ee MAY-juss (0–0, 9–1)  
**Anethum graveolens** uh-NEE-thum gruh-VEE-o-lenz (0–0, 12–1)  
**Arctostaphylos × coloradensis** ark-toh-STAFF-ih-loss kol-ur-uh-DEN-siss (4–8, 8–3)  
**A. uva-ursi** A. YOO-vuh-UR-sy (2–6, 6–1)  
**Astrantia major** uh-STRAN-tee-uh MAY-jer (4–7, 7–1)  
**Boltonia asteroides** bohI-TOH-nee-uh ass-tuh-ROY-deez (4–8, 9–2)  
**Brassavola nodosa** bras-uh-VO-luh no-DOH-suh (min. 55°F, 11–7)  
**Calyptophus hartwegii** subsp. **fendleri** kal-ih-LO-fus hart-WEG-ee-eye subsp. fend-LER-eye (5–8, 8–5)  
**C. lavandulifolius** C. lah-van-dyew-lih-FO-lee-uh (4–8, 8–4)  
**C. serrulatus** C. sair-yew-LAY-tus (3–9, 9–4)  
**Cephalaria gigantea** sef-uh-LAIR-ee-uh jy-gan-TEE-uh (3–7, 7–1)  
**Cotinus coggygria** ko-TY-nus ko-JEE-gree-uh (5–9, 9–3)  
**Crambe cordifolia** KRAM-bee kor-dih-FO-lee-uh (6–9, 9–6)  
**Crocsmia × crocosmiiflora** kro-KAHZ-me-uh kro-kos-me-ih-FLOR-uh (6–9, 9–3)  
**Deschampsia cespitosa** deh-SHAMP-see-uh sez-pih-TOH-suh (5–9, 9–1)  
**Dierama pulcherrimum** die-uh-RAH-muh pul-KER-rih-mum (8–10, 10–8)

## E–K

- Epilobium angustifolium** eh-pih-LO-be-um ang-gus-tih-FO-lee-um (3–7, 7–1)  
**Epiphyllum oxypetalum** ep-ih-FIL-um ok-sih-PET-uh-lum (11, 12–1)  
**Eryngium amethystinum** ee-RIN-jee-um am-uh-THISS-tih-num (3–8, 8–1)  
**E. yuccifolium** E. yuk-ih-FO-lee-um (4–9, 12–1)  
**Eupatorium maculatum** yew-puh-TOR-ee-um mak-yew-LAY-tum (5–11, 9–1)  
**Foeniculum vulgare** fee-NICK-yew-lum vul-GAY-ree (4–9, 9–1)

- Gaura lindheimeri** GAW-ruh lind-HY-mur-eye (6–9, 9–6)  
**Gladiolus callianthus** glad-ee-O-lus kal-ee-AN-thus (7–10, 10–7)  
**Gypsophila paniculata** jip-SOF-ih-luh pan-ik-yew-LAY-tuh (4–9, 9–1)  
**Helenium autumnale** heh-LEE-nee-um aw-tum-NAL-ee (4–8, 8–1)  
**Helictotrichon sempervirens** hel-ik-toh-TRY-kon sem-pur-VY-renz (4–9, 9–1)  
**Heliopsis helianthoides** hee-lee-OP-siss hee-lee-an-THOY-deez (4–9, 9–1)  
**Hemerocallis citrina** hem-er-o-KAL-liss sih-TRY-nuh (3–9, 9–4)  
**Ipomoea alba** ih-po-ME-uh AL-buh (min. 45°F, 12–10)  
**Kalmia angustifolia** KAL-mee-uh ang-gus-tih-FO-lee-uh (1–6, 6–1)  
**K. latifolia** K. lat-ih-FO-lee-uh (4–9, 8–3)  
**Knaulia macedonica** NAW-tee-uh mass-uh-DON-ih-kuh (5–9, 9–5)

## L–O

- Lagenaria siceraria** laj-eh-NAIR-ee-uh sih-suh-RAIR-ee-uh (0–0, 11–4)  
**Lobelia cardinalis** lo-BEEL-yuh kar-dih-NAL-iss (2–8, 8–1)  
**Maianthemum canadense** my-AN-theh-mum kan-uh-DEN-see (3–8, 8–3)  
**Matthiola longipetala** subsp. **bicornis** mah-tee-O-luh lon-jih-PEH-tal-uh subsp. by-KOR-nis (8–10, 10–8)  
**Mirabilis jalapa** mih-RAB-ih-liss jah-LAP-uh (9–11, 12–1)  
**Molinia caerulea** subsp. **arundinacea** moh-LEEN-ee-uh see-ROO-lee-uh subsp. uh-run-dih-NAY-see-uh (5–9, 9–1)  
**Muhlenbergia capillaris** mew-len-BUR-jee-uh kap-ih-LAIR-iss (6–10, 10–5)  
**Nasella tenuissima** nah-SEL-luh ten-yew-ISS-ih-muh (7–11, 12–7)  
**Nicotiana glauca** nih-ko-shee-AN-uh ah-LAY-tuh (10–11, 12–1)  
**Oenothera caespitosa** ee-NOTH-ur-uh sez-pih-TOH-suh (4–8, 8–1)  
**O. fruticosa** O. froo-tih-KO-suh (4–8, 8–1)

- O. howardii** O. how-WARD-ee-eye (4–9, 9–4)  
**O. longissima** O. lon-JIS-sih-muh (6–9, 10–6)  
**O. macrocarpa** O. mak-ro-KAR-puh (4–8, 8–3)  
**O. organensis** O. or-guh-NEN-sis (5–8, 9–5)  
**O. speciosa** O. spee-see-O-suh (5–8, 8–1)

## P–Z

- Panicum virgatum** PAN-ih-kum vur-GAY-tum (5–9, 9–1)  
**Patrinia scabiosifolia** pah-TRIN-ee-uh skay-bee-o-sih-FO-lee-uh (5–8, 8–5)  
**P. villosa** P. vih-LO-suh (5–8, 8–4)  
**Perovskia atriplicifolia** peh-ROV-skee-uh at-rih-plih-sih-FO-lee-uh (5–9, 9–2)  
**Persicaria polymorpha** pur-sih-KAIR-ee-uh pah-lee-MOR-fuh (4–9, 9–4)  
**Polianthes tuberosa** pol-ee-AN-thees too-bur-O-suh (8–11, 12–7)  
**Rhododendron canadense** ro-doh-DEN-dron kan-uh-DEN-see (3–6, 5–2)  
**Sanguisorba officinalis** san-gwi-SOR-buh oh-fiss-ih-NAL-iss (3–8, 8–1)  
**S. tenuifolia** S. ten-yew-ih-FO-lee-uh (9–7, 7–1)  
**Solandra maxima** so-LAN-druh MAK-S-ih-muh (11, 12–6)  
**Sorbus americana** SOR-bus uh-mair-ih-KAN-uh (3–5, 6–1)  
**S. aucuparia** S. aw-kew-PAIR-ee-uh (4–7, 7–1)  
**S. decora** S. deh-KOR-uh (2–7, 7–3)  
**Sporobolus heterolepis** spor-OB-o-lus het-ur-o-LEP-iss (3–8, 10–2)  
**Stipa gigantea** STY-puh jy-gan-TEE-uh (8–11, 12–1)  
**Thalictrum delavayi** thal-ik-trum deh-luh-VAY-eye (4–7, 7–1)  
**T. rochebruneanum** T. rowsh-broo-nee-AY-num (3–8, 8–4)  
**Verbena bonariensis** ver-BEE-nuh bo-nair-ee-EN-siss (6–11, 12–1)  
**Veronicastrum virginicum** ver-on-ih-KASS-trum vir-JIN-ih-kum (4–8, 8–3)  
**Yucca filamentosa** YUK-uh fil-uh-men-TOH-suh (4–11, 12–5)  
**Zinnia angustifolia** ZIN-ee-uh ang-gus-ti-FO-lee-uh (0–0, 11–1)

# Protecting One of Your Most Valuable Assets



## Soil is the Key

When working with landscape trees and shrubs, the most important component of health is the soil. It is estimated that 80% of the problems related to landscape plantings originate with soil issues. That includes pest problems! Because the condition of the soil is so important for your landscape trees and shrubs, The Care of Trees places a major focus on Plant Health Care activities that effect the soil.

## Why choose us to care for your trees?

Our arborists are passionate about trees. They understand how much your trees mean to you and are ready to go the extra mile to ensure proper care.

Your trees are living assets that need ongoing care to thrive. The committed, knowledgeable professionals of The Care of Trees can help you protect them for today and for future generations.



Corporate Member

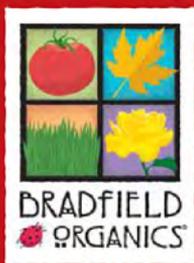


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