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March / April 2015

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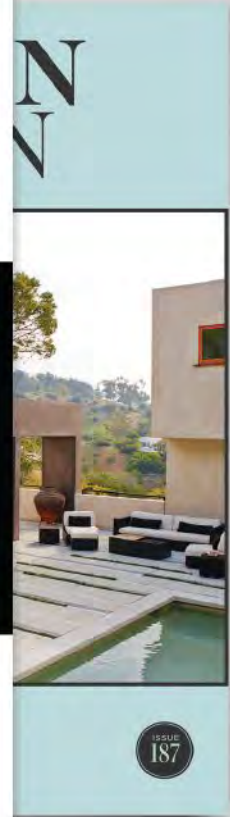
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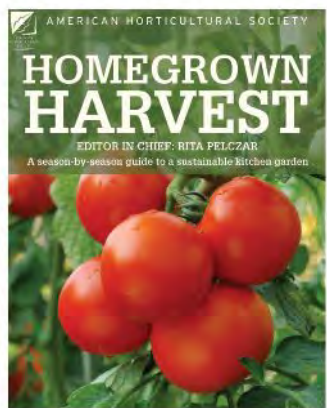
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## NOTES FROM RIVER FARM

**S**PRING HAS different meanings to gardeners across the country. For some, it represents a dramatic and welcome change of seasons. It is a time when the plants in our gardens wake up and the days get longer and more conducive to outdoor activities. For others, the outward signs of spring's onset are less pronounced or may even slip by unnoticed. Nonetheless, the symbolism of spring cannot be ignored. It is a time of renewal and fresh growth—a time for opportunity and optimism.

Whatever spring means to you, I would offer that American gardeners have good reason to view the spring of 2015 as a time of opportunity. National sentiment is upbeat and consumer confidence is at its highest point in years. After the “great recession” of the late 2000s and the ensuing recovery, this is welcome news. How does it translate to my garden, you might ask? It means that growers who have had no choice but to retrench are beginning to expand their inventories, it means that retailers will be more comfortable with increasing their stock, resulting in improved and more diverse plant selections, and it means that more garden projects—whether DIY or otherwise—will be underway this season. And we will likely be seeing greater ingenuity and creativity across the board as efforts that have been put on hold by a weak economy gain new energy and momentum.

One sure sign of spring for the American Horticultural Society is the announcement of our annual Great American Gardeners Award and Annual Book Award winners. Hailing from across the country, these people, organizations, and publications are recognized for their outstanding contributions to the art and science of horticulture. We heartily applaud all of this year's esteemed recipients! Find out who they are, beginning on page 14 of this issue of *The American Gardener*.

We are also welcoming spring with plenty of gardening inspiration in the rest of this issue. For example, as you are planning which outdoor projects to tackle this year, let our article on “Designing an Inviting Garden” by Carolyn Singer on page 24 guide your efforts to create a welcoming atmosphere in your garden to make visitors feel at home. Other topics we hope you will enjoy include a look at the practical (and delicious) benefits of native American berries, a discussion of lilac cultivars ideal for contemporary gardens, and a thought-provoking take on the pros and cons of growing “nativars”—a term coined to collectively describe cultivars of native plants.

Whether experimenting with new plants in your garden, refining your existing plantings, or creating an entirely new landscape, we hope that you will join us in embracing the spirit of opportunity and optimism that spring represents.

Thank you for being a part of our AHS family and happy gardening!

Tom Underwood  
Executive Director



Tom Underwood

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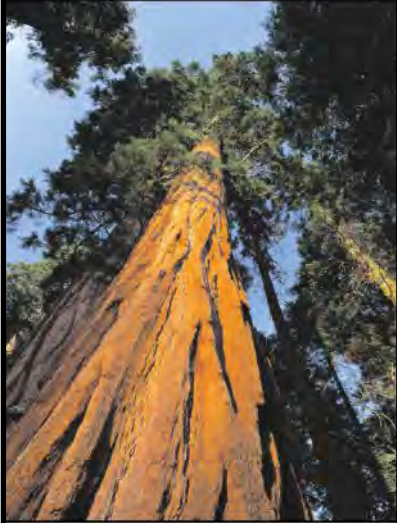
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**MEMBERS' FORUM**

**TREE MISIDENTIFIED**

On page 28 of the article “Weeping Beauties” (January/February 2015), there is a



photo of a weeping tree described as *Fagus sylvatica* ‘Pendula’ [shown, left]. However, the depicted plant seems more likely to be *Ulmus glabra* ‘Camperdownii’, which has rugged bark quite different from the typically smooth bark of European beech.

*Fran de la Mota  
Blacksburg, Virginia*

**Editor’s response:** The image by photographer Mark Turner was indeed *Ulmus glabra* ‘Camperdownii’. Alert reader Charles Heuser in Carlisle, Pennsylvania, also spotted this mistake.

**GENETIC MODIFICATION**

In the January/February issue, “Garden Solutions” columnist Scott Aker wrote about plant breeding and genetic modification. Aker appears to know his subject well, and he has provided some useful information. However, I was disappointed with the article for the following reasons:

First, it discusses genetic selection and genetic engineering (GE) as if they are simply two stages in a historical process, when, in fact, GE is a dramatic departure from natural processes that have continued for thousands of years with very positive effects. GE, while holding great promise, also has great potential for misuse and unintended consequences. I believe it is inappropriate to conflate the two techniques.

Second, one of the major applications of GE in horticulture and agriculture is the development of so-called “Roundup-ready” crops that can be repeatedly sprayed with one particular brand of herbicide. Aker

barely acknowledges this application of GE. In fact, GE crops have fostered a vast increase in the use of Roundup. This practice has led to widespread alarm over GE, and stimulated a widespread effort to ensure GE crops and products made from them are clearly labeled as such.

Third, Aker’s discussion of the impact of GE on non-target organisms focuses on one example—butterflies consuming milkweed leaves dusted with GE corn pollen—and only touches on the real elephant in the room: habitat loss. Numerous reports link increased uses of Roundup with the elimination of milkweed in midwestern crop fields, a factor contributing to the alarming decline in monarch butterfly population.

GE does hold great potential. I fear our error as a society is in allowing commercial interests to use this technology with profit as their main goal, rather than using it for the public benefit.

*Thomas Karwin  
Santa Cruz, California*

**Scott Aker’s response:** My goal with the January/February column was to offer an overview of developments in plant breeding, including the relatively new field of genetic engineering. GE is a complicated and controversial topic, so I attempted to present a balanced assessment that would allow people to draw their own conclusions about the merits of some of its applications. In retrospect, perhaps the space allotted for my column was insufficient to do justice to such a complicated topic.

I was interested to read the news item in the same issue about a wheat gene being inserted into the American chestnut with the goal of making it resistant to the chestnut blight that wiped out the tree in its native habitat. While some will reject this new tree because of the technology used to produce it, others may embrace the chance to see an American chestnut grow to maturity.

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

MARK TURNER

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**NATIONAL CHILDREN & YOUTH GARDEN SYMPOSIUM** For information about the Society's annual National Children & Youth Garden Symposium, e-mail [education@ahs.org](mailto:education@ahs.org) or visit [www.ahs.org/ncygs](http://www.ahs.org/ncygs).

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**WEBSITE: [www.ahs.org](http://www.ahs.org)** The AHS website is a valuable source of information about the Society's programs and activities. Users must set up a username and password to access the member's-only sections.

# News from the AHS

## March / April 2015

PROGRAMS • EVENTS • ANNOUNCEMENTS

### ENVIRONMENTAL AWARDS FOR FLOWER SHOW EXHIBITS

EACH YEAR, the American Horticultural Society (AHS) recognizes exhibits at flower and garden shows across the country with its Environmental Award. This honor spotlights displays that best demonstrate the bond between horticulture and the environment while inspiring its viewers through skillful design and appropriate plant material to sustainably beautify their homes and communities.

Winners of this year's award include "Pining Over Yew—A Love for Every Season," designed by Jumanji Oliana at the Northwest Flower & Garden Show in early February in Seattle, Washington. At the Arkansas Flower & Garden Show in



2015 AHS Environmental Award recipients include, above, "Pining Over Yew" at the Northwest Flower & Garden Show, and left, the display by the Ozark Folk Center State Park at the Arkansas Flower & Garden Show.

late February in Little Rock, the award went to the Ozark Folk Center State Park display garden featuring the historical use of native Arkansas plants by people and wildlife.

The School of Environmental Design at Temple University in Ambler, Pennsylvania, took home the award for its creative display's use of sustainable and recyclable materials at the Philadelphia Flower Show from February 28 to March 8.

For a complete list of shows that offer the AHS Environmental Award, visit the AHS website ([www.ahs.org](http://www.ahs.org)) and click on "Events by Region" in the "Garden Resources" area.



## COALITION OF AMERICAN PLANT SOCIETIES TO MEET IN OHIO

THE AHS is again participating in the annual meeting of the Coalition of American Plant Societies (CAPS), which will be held June 17 to 19 in Cleveland, Ohio. CAPS was founded in 2012 to provide a forum for national plant societies to foster mutual success by sharing information about common opportunities and organizational challenges.

The Herb Society of America is sponsoring this year's meeting, which is organized around the theme "Relevance—Learn, Explore and Grow." Attendees will enjoy field trips to a variety of sites, including the Cleveland Botanical Garden, the Holden Arboretum in nearby Kirtland, Ohio, and the national headquarters of the Herb Society of America, which is adjacent to the arboretum.

Because space is limited, attendance is limited to leaders of national plant societies or their designated delegates. For more information about this year's CAPS meeting, e-mail **Susan Liechty** at [herbsdel@aol.com](mailto:herbsdel@aol.com).

## A MAINE EVENT FOR PRESIDENT'S COUNCIL MEMBERS

THIS YEAR'S AHS President's Council trip, scheduled for June 21 to 25, is an excursion to the picturesque eastern coast of Maine. The trip is an exclusive opportunity for members of the AHS President's Council to



The historic Spruce Point Inn Resort & Spa

enjoy four days and three nights at the scenic Spruce Point Inn Resort & Spa in Boothbay Harbor, Maine. The resort, built in the late 1880s, boasts 57 acres of woodland overlooking a stretch of Maine oceanfront.

A highlight of the trip will be a visit to the Coastal Maine Botanical Gardens for a private lunch and tour with **Bill Cullina**, executive director of the garden, as well as the gardens' horticulture team. Opened in 2007, the garden is situated on 270 acres of tidal shoreline in Boothbay, a coastal town established in 1764. Visits to some of the area's exemplary private gardens will make up a significant portion of the schedule as well.

For more information on how to become a member of the President's Council or to obtain a trip itinerary, send an e-mail to [development@ahs.org](mailto:development@ahs.org) or visit the AHS website ([www.ahs.org](http://www.ahs.org)).

## KEYNOTE SPEAKERS SET FOR YOUTH GARDEN SYMPOSIUM

FOUR DISTINGUISHED keynote speakers will give presentations at the 2015 National Children & Youth Garden Symposium (NCYGS), taking place this year in Austin, Texas, from July 9 to 11. **Lisa Whittlesey** and **Alexandra Evans** will lead off with an explication of the International Junior Master Gardener Program's



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## AHS NATIONAL EVENTS 2015 CALENDAR

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

APRIL 10 & 11. **Spring Garden Market.** River Farm, Alexandria, Virginia. (Members-Only Morning is April 10, 10 a.m.–12 p.m., then open to all until 6 p.m., and on April 11 from 10 a.m.–6 p.m.)

APRIL 10–12. **Colonial Williamsburg Garden Symposium.** Williamsburg, Virginia.

APRIL 10–21. **Mediterranean Cruise.** AHS Travel Study Program.

APRIL 18–25. **Historic Garden Week in Virginia.**

JUNE 4. **Great American Gardeners and AHS Book Awards Ceremony and Banquet.** River Farm, Alexandria, Virginia.

JUNE 9–21. **Discovering Gardens in the Netherlands.** AHS Travel Study Program.

JUNE 17–19. **Coalition of American Plant Societies Meeting.** Cleveland, Ohio.

JUNE 21–25. **President's Council Trip.** Boothbay Harbor, Maine.

JUNE 25–27. **The Gardeners of America/Men's Garden Clubs of America 2015 National Annual Convention.** Clear Lake, Iowa.

JULY 9–11. **AHS National Children & Youth Garden Symposium.** Austin, Texas.

AUG. 14–16. **The Homestead Resort's "In the Garden" Weekend Symposium.** Hot Springs, Virginia.

SEPT. 19. **Annual AHS Gala.** River Farm, Alexandria, Virginia.

SEPT. 24–26. **America in Bloom Symposium and Awards Program.** Holland, Michigan.

**SOLD OUT**

“Learn, Grow, Eat, & Go!” curriculum and research program. **Whitney Cohen**, director of the nonprofit LifeLabs, dedicated to garden-based learning, will discuss ways that school garden programs are changing the nature of education. Finally, entomologist **Nate Erwin** will share insights from his 20-year career as manager of the O. Orkin Insect Zoo and Butterfly Pavilion at the Smithsonian National Museum of Natural History in Washington, D.C., which provides families the opportunity to interact with arthropods.

Designed for educators, program coordinators, garden designers, youth group leaders, and others interested in connecting kids and plants, the NCYGS schedule also will include tours, educational sessions, and networking opportunities.

For more information, visit [www.ahs.org/ncygs](http://www.ahs.org/ncygs), send an e-mail to [education@ahs.org](mailto:education@ahs.org), or call (703) 768-5700 ext. 121. Follow @AHS\_NCYGS on Twitter for regular updates.

## VIRGINIA GARDEN WEEK 2015

RIVER FARM, AHS's historic headquarters in Alexandria, Virginia, will participate in Virginia Garden Week on Saturday, April 18. During the week of April 18 to 25, 2015, the public is welcomed into magnificent houses and spectacular gardens across Virginia courtesy of the oldest statewide house and garden tour in the country.



**Gardens like this one on Virginia's Eastern Shore will be open to visitors.**

The Garden Club of Virginia has sponsored the annual event since 1929 to help fund preservation and restoration of gardens in the state. This year, 32 tours showcase more than 250 sites in various regions of Virginia. For tickets and additional information about Virginia Garden Week, visit [www.vagardenweek.org](http://www.vagardenweek.org) or call (804) 644-7776 ext. 22.

*News written by Editorial Intern Mary S. Chadduck.*

THE AMERICAN  
HORTICULTURAL SOCIETY'S  
23<sup>RD</sup> ANNUAL

NATIONAL  
CHILDREN  
& YOUTH  
GARDEN  
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- Experience Lady Bird Johnson Wildflower Center including the recently opened Luci and Ian Family Garden.
- Learn about the newly released International Junior Master Gardener Program's "Learn, Grow, Eat, & GO!" curriculum and research program.
- Share ideas, success stories, and inspiration with like-minded colleagues from across the nation.

For more information,  
visit [www.AHS.org/NCYGS](http://www.AHS.org/NCYGS)  
e-mail [education@ahs.org](mailto:education@ahs.org), or  
call (703) 768-5700 ext. 121  
Follow us on Twitter: @AHS\_NCYGS



**Co-hosted by the Lady Bird Johnson Wildflower Center  
and the International Junior Master Gardener Program,  
with sessions held at the Radisson Austin Downtown**

The American Horticultural Society's National Children & Youth Garden Symposium is a one-of-a-kind event for educators, landscape architects, program coordinators, community leaders, and others dedicated to connecting kids to plants and the natural world. Join us for three days of sharing best practices and achievements in the field of youth gardening education.

The 2015 Symposium will be held in Austin, Texas, in a region rich with gardening history and innovation, as exemplified by local hosts the Lady Bird Johnson Wildflower Center and the International Junior Master Gardener Program. While experiencing Texan local foods and native plants, you'll also gather new tools, activities, and skills to take back home to your own gardening programs.

Gardens can be endless sources of wonder, fun, and imagination for children, as well as invaluable resources for learning about the world around them. Join us as we work to make them a vital and accessible part of every child's life experience.



## AHS MEMBERS MAKING A DIFFERENCE: Jane Milliman

by Mary S. Chadduck

**A**N AMERICAN Horticultural Society member since 1995, Jane Milliman admits to being “excited about anything that involves gardens and getting more people interested in gardening.” Her passion for gardening found an outlet in the mid-1990s when, at the tender age of 26, she founded the *Upstate Gardener’s Journal*, a bimonthly magazine offering gardening information specific to Upstate New York, where she lives. Soon after, she noticed that the newspaper in nearby Rochester lacked a local gardening voice, so she became its garden columnist. For two decades, she has inspired thousands of regional gardeners through these two mediums.

In 2012, she ventured into new avenues of communication by launching *Ear to the Ground Pro*, a blog site companion to the email newsletter of the same name she produces for horticulture industry professionals in her region. Milliman says her goal for the blog is the same as for her other writing: “To provide information, hopefully in an entertaining way, that teaches people interesting things about gardening.”

In 2012, she ventured into new avenues of communication by launching *Ear to the Ground Pro*, a blog site companion to the email newsletter of the same name she produces for horticulture industry professionals in her region. Milliman says her goal for the blog is the same as for her other writing: “To provide information, hopefully in an entertaining way, that teaches people interesting things about gardening.”

### BUILDING RESOURCES

Milliman shares her gardening expertise and passion through her volunteer work with regional groups focused on horticultural education and community building through horticulture. For six years she has served on the board of the Rochester Civic Garden Center, two of

those years as president. This educational organization offers classes covering a wide range of gardening topics, as well as several horticulture related certificate programs. Milliman herself has taken

in the middle of a beautiful arboretum.”

She also volunteers with Greentopia, a nonprofit dedicated to enhancing Rochester’s community life by implementing environmentally sensitive development in the Genesee River Falls area. At the fledgling organization’s first meeting in 2008, she was so impressed that she “signed on as the first board member that day.”

Her favorite Greentopia project is GardenAerial, a new green space that will be built on Rochester’s Pont de Rennes Bridge, which is open only to pedestrians and bicyclists. Describing it as a “hanging garden,” Milliman says it will “overlook a gigantic waterfall in the middle of the city.” She sits on this project’s board, which spearheads fundraising, planning, and construction.

### SMALL BUT MIGHTY GARDEN

A self-described ornamental gardener, Milliman recently downsized from a third of an acre to a townhouse on a tiny lot. To augment her 65-square-foot space, she convinced her next-door neighbor to let her take over his growing area. Her plantings are so exuberant that passersby often stop to admire her pocket garden and chat. “I have at least a dozen shrubs and lots of perennials in there,” Milliman notes.

Occasionally, one of her horticultural adventures goes awry, like the hops vine she had to remove last year after its rampant growth threatened to smother the whole garden. Not one to give up, she plans to install a clematis for vertical interest this spring.

It’s clear to see that gardening in all its guises infuses every aspect of Milliman’s life. Both she and everything she touches are richer for it.

Mary S. Chadduck is an editorial intern for *The American Gardener*.



Jane Milliman



Milliman founded *Upstate Gardener’s Journal*, top, in the mid-1990s. More recently she launched a companion blog, above.

classes there and regularly attends the very popular annual spring symposium, which she credits with helping her development as a gardener. “It has a horticultural library beyond compare. It’s just a wonderful resource,” she enthuses, “and it’s right

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## AHS 2015 Great American Gardeners National Award Winners

The American Horticultural Society (AHS) is proud to announce the distinguished recipients of the Society's 2015 Great American Gardeners Awards. Individuals, organizations, and businesses who receive these national awards represent the best in American gardening. Each has contributed significantly to fields such as plant research, garden communication, landscape design, youth gardening, teaching, and horticultural therapy. We applaud their passionate commitment to American gardening and their outstanding achievements within their areas of expertise.

The 2015 awards will be presented on the evening of June 4 during the Great American Gardeners Awards Ceremony and Banquet at River Farm, the AHS's headquarters in Alexandria, Virginia. For more information, or to register to attend the ceremony, visit [www.ahs.org/awards](http://www.ahs.org/awards) or call (703) 768-5700.

### LIBERTY HYDE BAILEY AWARD

*The American Horticultural Society's highest honor is 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.*



THIS YEAR'S recipient of the Liberty Hyde Bailey Award is **William E. Barrick**, executive director of Bellingrath Gardens and Home in Theodore, Alabama.



Barrick's long career has been distinguished by contributions to many different areas of American horticulture. After earning his doctorate in landscape horticulture from Michigan State University in East Lansing, he began his career as an assistant professor in ornamental horticulture at the University of Florida, Gainesville, in 1976. Four years later, he was hired as director of horticulture at Callaway Gardens in Pine Mountain, Georgia, where he eventually became executive vice president and director of gardens. Barrick enhanced educational programs at Callaway and coordinated the development of three major infrastructure projects—the John A. Sibley Horticultural Center, the Cecil B. Day Butterfly Center, and the Virginia H. Callaway Discovery Center—that are now top visitor attractions.

Barrick's tenure at Bellingrath Gardens, which began in 1999, has been marked by similar success. Under his direction, the 65-acre garden has developed a master plan for renovations and infrastructure improvements, enhanced its information systems, and forged closer ties with the community. The development of an advisory committee to expand outreach and the transformation of the garden's outdoor holiday light show into one of the largest such displays in the region have contributed to Bellingrath's rising profile as a public garden.

Throughout his career, Barrick has demonstrated his commitment to American horticulture through his volunteer service on the advisory boards of several national horticultural organizations, including the AHS in Alexandria, Virginia, the American Public Gardens Association (APGA) in Kennett Square, Pennsylvania, the Lady Bird Johnson Wildflower Center in Austin, Texas, and the U.S. National Arboretum in Washington, D.C. He is a past president of the APGA and past chair of the AHS Board.

A respected speaker and writer, he is the author of *75 Great American Garden Plants* (Oxmoor House, 1998) and co-author of the *AHS Southeast SmartGarden Regional Guide* (DK Publishing, 2004). Over the years he has received many awards and honors, including the Arthur Hoyt Scott Medal and Award in 1994 from the Scott Arboretum of Swarthmore College in Pennsylvania, and the AHS's Meritorious Service Award in 2011.

### LUTHER BURBANK AWARD

*Recognizes extraordinary achievement in the field of plant breeding.*

**Floyd Zaiger** of Modesto, California, has been improving stone fruit worldwide for more than 50 years. His company, Zaiger's Inc. Genetics, has pioneered the breeding of white-fleshed fruits capable of withstanding commercial handling, and is currently a leader in developing



high-sugar, low-acid white and yellow peach and nectarine varieties. Zaiger's also leads in development of interspecific varieties, holding patents on the Aprium (apricot-plum), Pluot (plum-apricot), Nectaplum (nectarine-plum), Peacotum (peach/apricot/plum), and Pluerry (plum-cherry).

### 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.*



**Renee Shepherd** has been supplying gardeners with vegetable, herb, and flower seeds for more than 30 years, first with Shepherd's Garden Seeds and now with Renee's Garden. With her focus on finding, testing, and introducing heirloom and gourmet varieties, she is considered a key figure in today's edible gardening movement. Each year, hundreds of new varieties are evaluated in the company's organic test gardens in Felton, California, and Middlebury, Vermont. Known as an innovator, Shepherd added an extra flap

to her seed packets to allow for detailed descriptions of each variety, including her personal observations of their growth habit, cultivation needs, flavor, and uses. Shepherd regularly donates seeds to school gardens and non-profit organizations around the country.

### G.B. GUNLOGSON AWARD

*Recognizes the innovative use of technology to make home gardening more productive and successful.*



**Smart Gardener, Inc.**, founded by Kristee Rosendahl in 2006, aims to simplify food gardening through an online planning tool. Users can create customized garden plans by entering information such as location, garden size, food preferences, and household size. The website then provides variety recommendations and descriptions, growing guidelines and time tables, a weekly to-do list, and a journal that tracks completed tasks. It also allows users to lay out a garden plan or use templates that can be shared with other users.

### HORTICULTURAL THERAPY AWARD

*Recognizes significant contributions to the field of horticultural therapy.*

During more than 20 years of working as a speech-language pathologist in school,



hospital, and clinic settings, **Liz Bullard** observed that typical outdoor play spaces present many difficulties for children with special needs. To provide an inclusive place for these children

to enjoy the outdoors with their family and friends, she founded the nonprofit Seattle Children's PlayGarden in 2002. Construction began in 2010 in partnership with the Seattle Parks and Recreation Department. With the capital construction phase recently completed, the PlayGarden is now focusing on pro-

gram development, such as camps and classes that integrate children of all ages and abilities.

### LANDSCAPE DESIGN AWARD

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

A principal of Nelson Byrd Woltz Landscape Architects (NBW) in Charlottesville,



Virginia, **Thomas Woltz** focuses on fusing sustainability and design with the *genius loci* of a site to enhance spaces where people work, live, and play. Through the NBW Conservation Agriculture

Studio, Woltz also advocates for integrating scientific methodology with landscape design and restoration ecology to create biodiverse, beautiful, and productive agricultural landscapes. In 2011, Woltz was inducted into the American Society of Landscape Architects Council of Fellows, one of the highest honors in the profession.

### 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.*

A longtime member and supporter of the AHS, **Susie Usrey** is vice president of



customer relations at Monrovia nurseries in Azusa, California. Usrey was a member of the Society's Board from 1999 to 2014, serving as Board Chair from 2006 to 2010 and from 2012 to 2013. Usrey's business acumen and insights into American horticultural trends helped guide various Board committees, including Membership, Strategic Planning, and Visioning Task Force. She has also hosted AHS Travel Study Program tours.

## B.Y. MORRISON COMMUNICATION AWARD

*Recognizes effective and inspirational communication—through print, radio, television, and/or online media—that advances public interest and participation in horticulture.*



**James A. Baggett** has been editing and writing for gardening magazines for more than 30 years. During his career, he has served as executive editor of *Country Living Gardener* and *Rebecca's Garden*, garden editor of *American Homestyle & Gardening*, and was the founding managing editor of *Elle Decor*. Currently he is editor of *Country Gardens* as well as editor of all of the Better Homes and Gardens Special Interest Publications gardening titles. Baggett has received numerous awards for his work, including the 2012 Silver Award in the best magazine category for *Country Gardens* from the Garden Writers Association.

## PROFESSIONAL AWARD

*Given to a public garden administrator whose achievements during the course of his or her career have cultivated widespread interest in horticulture.*

**Paul Redman** has been the director of Longwood Gardens in Kennett Square, Pennsylvania, since 2006. Prior to his appointment, he had been the executive director of Franklin Park Conservatory and Botanical



## Nominations for 2016

Help us give recognition to deserving “horticultural heroes” by nominating someone you know for one of the 2016 Great American Gardeners Awards. To do so, visit [www.ahs.org/awards](http://www.ahs.org/awards) for more information.

Garden in Columbus, Ohio, for nine years. At Longwood's helm, Redman has focused on diversifying its programs and harnessing technology to expand its reach. As a result, general attendance has increased more than 25 percent, and garden membership has risen by more than 200 percent in the last six years. Redman currently sits on the boards for both the American Public Gardens Association and the Garden Conservancy.

## 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.*

Founded in 2003, **City Blossoms** is a non-profit organization based in Washington, D.C., devoted to developing child-driven, community-engaging, and creative green spaces. Since its inception, it has developed more than 40 green spaces throughout Washington, D.C., Baltimore, Maryland, and Philadelphia, Pennsylvania. In 2013, City Blossoms published an ebook and hard-copy format Spanish/English bilingual early childhood curriculum, providing garden and nutrition-based lesson plans to educators.



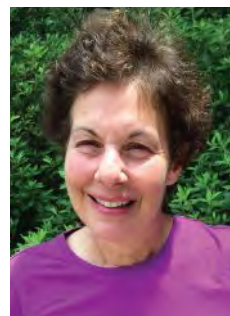
cityblossoms

## 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.*

**Nina Bassuk** has been a professor and program leader of the Urban Horticul-

ture Institute at Cornell University in Ithaca, New York, for 35 years. In addition to teaching college classes, she is co-author of *Trees in the Urban Landscape: Site Assessment, Design, and Installation* (Wiley, 2004), and has published more than 100 papers



on urban horticulture such as evaluations of improved plant selections for difficult sites and improved transplanting technology. Bassuk is a member of the executive committee of the New York State Urban Forestry Council and received the Arthur Hoyt Scott Medal and Award in 2008 from the Scott Arboretum of Swarthmore College in Swarthmore, Pennsylvania.

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

## URBAN BEAUTIFICATION AWARD

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

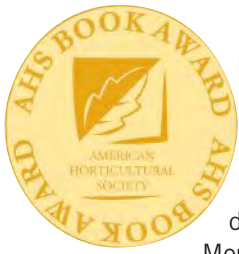
**The Greening of Detroit**, founded in 1989, is a Michigan nonprofit resource agency that focuses on using city land in a way that improves quality of life, has environmental integrity, and promotes education and stewardship. Its programs seek to address some of Detroit's most challenging issues, from unemployment



to “food deserts”—areas where residents lack ready access to fresh, locally grown food. Thousands of the organization's volunteers assist with planting trees and creating gardens in neighborhoods throughout the city each year.

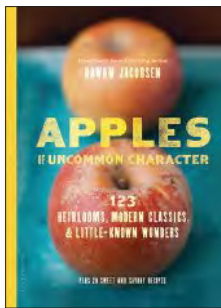


# 2015 AHS Book Award Winners



Each year, the American Horticultural Society recognizes outstanding gardening books published in North America with its annual Book Award. Nominated books are judged by the AHS Book Award Committee on qualities such as writing style, authority, accuracy, and physical quality. This year's recipients, selected from books published in 2014, are listed below.

The 2015 Book Award Committee was comprised of the following seven members: **Jeff Cox**, a garden communicator and designer in Sonoma County, California; **Rita Hassert**, a botanical librarian at the Morton Arboretum in Lisle, Illinois; **Susan Hines**, a garden communicator in Hyattsville, Maryland; **Jim Long**, garden communicator and owner of Long Creek Herbs in Blue Eye, Missouri; **Doug Oster**, a garden columnist for the *Pittsburgh Post-Gazette* and radio personality based in Pennsylvania; **Marty Wingate**, a garden writer and speaker in Seattle, Washington; and **Anne Marie Van Nest**, a garden communicator in Austin, Texas.



## Apples of Uncommon Character

by Rowan Jacobsen. Bloomsbury.

■ “Elegant and insightful, this uncommon work encourages readers to step out of their apple-comfort-zone,” says Rita Hassert. “Excellence is evident from cover to cover, as is the author’s passion for and knowledge of these fruits,” says Anne Marie Van Nest. “The photos are clear and evocative, creating a portrait of each apple that perfectly accompanies the useful information,” notes Marty Wingate. “The colorful description of each apple is spot on, right down to intimate details you only get from growing it,” says Jeff Cox.

## Attracting Beneficial Bugs to Your Garden

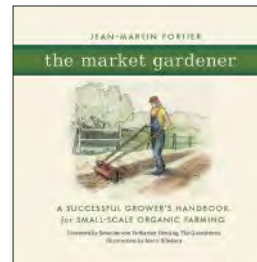
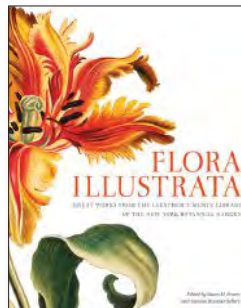
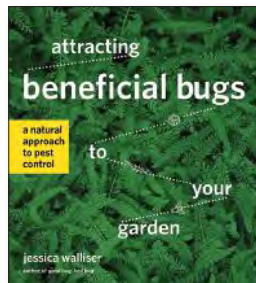
by Jessica Walliser. Timber Press.

■ “It’s a fresh, fascinating look at bugs—an important and unavoidable layer of the gardening experience—that got me thinking about the codependent relationship between plants and insects,” says Susan Hines. The practical, science-based information and good quality photographs that illustrate concepts make this book essential for “new and experienced gardeners alike,” says Jim Long.

## Flora Illustrata

edited by Susan M. Fraser and Vanessa Bezemer Sellers. Yale University Press and New York Botanical Garden.

■ This lavishly illustrated volume brings to life a special collection of botanical artwork, rare books, and other treasures



in the LuEsther T. Mertz Library of the New York Botanical Garden. “It adeptly captures horticultural history through thoughtful, easy-to-understand discussions of the botanical and cultural significance of each piece,” says Hassert. Everything from the high quality paper and appealing layout to the breadth of information makes this an “amazing reference volume,” says Wingate.

## The Market Gardener

by Jean-Martin Fortier. New Society Publishers.

■ This book “fulfills a significant demand for quality information about growing edibles sustainably for profit on a small community-based scale,” notes Van Nest. Building upon the work of others as well as the extensive experience of the author, “the content of this book is superb and very practical,” says Cox. “It would help any gardener create a better place to grow plants,” says Doug Oster.

## Weeds of North America

by Richard Dickinson and France Royer. University of Chicago Press.

■ Staggeringly comprehensive and well produced, “this is a fantastic resource, no matter what kind of gardener you are,” says Long. “I love the way it’s organized—very user-friendly. The photography is masterful and artistic,” adds Oster. Van Nest particularly appreciated that several life stages of each weed from seed to whole plant are depicted with detailed descriptions of each to aid with identification.

# Native American Berries

If you enjoy foraging for America's wild berries, here are some that can be easily integrated into your home landscape.

BY JESSIE KEITH



**E**DIBLE BERRIES native to North America feed wildlife and offer untamed, flavorful pickings for hikers and roadside harvesters. Native blueberries, gooseberries, raspberries, and others pack a punch of flavor unmatched by garden-variety hybrids—anyone who has tasted a wild blueberry pie knows store-bought berries are no match! Many native berry plants are also attractive additions to the cultivated landscape. Plant sizes, cultural requirements, and growth habits vary widely, so there's a native berry for practically every garden situation.

Many native berry plants thrive in part shade. Here, red elderberry (center with white flowers) and thimbleberry, in front of it, grow companionably at the edge of a woodland in this Bellingham, Washington, garden.

MARK TURNER

## WHAT'S A BERRY?

The word “berry” brings to mind things round, colorful, juicy, and delicious. So what is a berry? Botanically, a berry is defined as a fleshy fruit with a soft, edible exterior, produced from a single flower and containing one ovary, or gynoecium. But many of the fruits that we commonly think of as berries don't fit this formal definition.

For example, favorite “berries,” such as raspberries and blackberries, are aggregate fruits in the genus *Rubus*. These fruits, composed of clusters of individual seeds each surrounded by soft flesh, are known as drupelets. Strawberries (*Fragaria* spp.)

are aggregate-accessory fruits where each “seed” is a fruit called an achene that is embedded in an enlarged, fleshy receptacle (flower base). Common true berries include currants, gooseberries, cranberries, elderberries, and blueberries. For the purpose of this article, I'm going to refer to them all as berries from this point on.

## AN IRRESISTIBLE ATTRACTION

One thing berries have in common is that they coevolved with animals for seed dispersal. Their fleshy, sweet, colorful fruits are attractive and encourage consumption, which results in wider seed dispersal

and increases a berried plant's chance of geographic spread and survival. Often, partial digestion thins seed coats and helps the seeds of these plants germinate—making consumers both seed prep and dispersal tools. Without animals to spread their seeds, berried plants would not have the great evolutionary success they've had.

The history of humans' relationship with North American berries began with native people and their close connection to the land's wealth of wild food. It is estimated that Native Americans used some 250 different species of berries and fruits. Many tribes also cultivated berries; strawberries, blueberries, and cranberries were the most commonly grown. These and other berries were used for both medicine and food.

Gardeners interested in native berries have lots of options. Wild blueberries and wild strawberries are adaptable to both wooded and sunny landscapes, as well as containers. Large shrubby elderberries make excellent fruitful screens and any berried bramble (*Rubus* spp.) can be trained and tended in an edible garden. Native gooseberries and currants can grow in practically any sunny or partially sunny garden spot. Whenever possible, seek out regionally native species to maximize success and wildlife value.

## BLUEBERRIES AND RELATIVES

With their graceful, drooping spring flowers and red to purple fall foliage, blueberries (*Vaccinium* spp.) are one of the rock stars of the edible landscaping world. Relatives like cranberries, lingonberries, and huckleberries (*Gaylussacia* spp.), which also offer exceptional wildlife value via both flowers and fruits, are gaining popularity.

Members of the heath family (Ericaceae)—along with landscape standards such as azaleas and mountain laurels—the many acid-soil loving shrubs in the genus *Vaccinium* bear all manner of flavorful and nutritious fruits. They are moderately self-fruitful, but produce more bountiful harvests if grown in small groups.

Of the blueberries, highbush (*V. corymbosum*, USDA Hardiness Zones 3–7, AHS Heat Zones 7–1) and lowbush (*V. angustifolium*, Zones 2–8, 8–1) are both primarily northeastern species found in forested areas. Aside from height differences, highbush tends to have larger



Blueberry bushes are easy to grow and offer three seasons of landscape appeal.

fruits. New varieties are bred each year for better fruiting and disease resistance, each classified by fruiting season: early, mid-, or late. Of these, the high-yielding, easy-to-grow *V. corymbosum* 'Draper' is a popular mid-season variety with dark, plump berries. The late-producing 'Aurora' is another winner with large, extra flavorful berries. Among lowbush selections, the bushy *V. angustifolium* 'Burgundy' has colorful, deep red new growth and fall color in addition to producing many small, sweet fruits mid-season. A collection of compact selections, marketed under the trade name BrazelBerries, is well suited to container culture.

Western gardeners should consider the Cascade blueberry (*V. deliciosum*, Zones 4–8, 8–4), also called the blueleaf huckleberry. An inhabitant of higher-elevation meadows and open pine forests, this spreading shrub forms matted colonies that become covered with dark blue berries in summer months. For flavor, these are the berries of choice. Research conducted at the University of Idaho and Washington State University identified 31 aromatic flavor compounds in the berries that give them a more intense, pleasing flavor profile than domesticated blueberries.

Cranberries (*V. macrocarpon*, Zones 2–7, 7–1) are found in peaty bogs of the North. They are pretty plants for the garden but do best when grown in boggy trough gardens enriched with peat. Cold winters are required for good health. The red fruits are produced in fall, at the same time the small leaves turn shades of bright gold and red.

Lingonberries (*V. vitis-idaea*, Zones 2–6, 6–1) are native to the arctic and alpine regions of the Northern Hemisphere; the subspecies *minus* is the North American variant. This attractive, creeping evergreen shrub grows no more than eight inches tall and spreads by underground runners, making it useful as a groundcover among other plants that thrive in acidic soil. The tart, pea-sized, red berries ripen in late summer or fall; they make delicious jams and syrups. A sunny, well-drained location with some protection from winter winds is best, and mulching helps reduce weeds and keep the soil evenly moist.

## BRAMBLES

North America is home to more than 60 berry-producing brambly shrubs in the

## Resources

**Food Plants of the North American Indians** by Elias Yanovsky (originally published 1936). Redwood City Seed Company, Redwood City, CA, 1980.

**Landscaping with Fruit** by Lee Reich, Storey Publishing, North Adams, MA, 2009.

**Northern Bushcraft:** <http://northernbushcraft.com/berries>.

**North American Cornucopia: Top 100 Indigenous Food Plants** by Ernest Small. CRC Press, Boca Raton, FL, 2013.

**North American Fruit Explorers,** [www.nafex.org](http://www.nafex.org).

## Sources

**Edible Landscaping,** Afton, VA. (434) 361-9134. <http://ediblelandscaping.com>.

**Oikos Tree Crops,** Kalamazoo, MI. (269) 624-6233. [www.oikostreecrops.com](http://www.oikostreecrops.com).

**One Green World,** Mulino, OR. (877) 353-4028. [www.onegreenworld.com](http://www.onegreenworld.com).

**Raintree Nursery,** Morton, WA. (800) 391-8892. [www.raintreenursery.com](http://www.raintreenursery.com).

**St. Lawrence Nurseries,** Potsdam, NY. (315) 265-6739. [www.sln.potsdam.ny.us](http://www.sln.potsdam.ny.us).



Compact blueberries such as Peach Sorbet BrazelBerry are easy to grow in containers.

genus *Rubus*. Many garden-quality species offer excellent fruit, but all require regular maintenance because brambles sucker and spread. As a whole, bees value the flowers and many animals feed on the berries. Some species also have beautiful fall color and spring flowers. Fruiting types are distinguished by berry production times—either in summer (floricane) or fall (primocane).

Cloudberry and baked appleberry are two of the common names for the uncommon *R. chamaemorus* (Zones 2–6,

6–1). Native across the northernmost parts of the Northern Hemisphere, the low, spreading plants have thick, rose-like leaves. The berries ripen from red to gold in fall. Each small, bulbous fruit has large seeds and a unique flavor similar to that of tart apples. In the wild, the plants grow in moist, sphagnum-rich soils, so they are best grown in gardens with very peaty, well-drained, acidic soil in part to full sun. Specimens can also be grown in protected rock gardens where summers are cool and winters cold.

The American red raspberry (*R. idaeus*, Zones 4–11, 10–1) has hundreds of cultivated varieties to its name. Like many of the berries mentioned, the species is native across the entire Northern Hemisphere, where it grows in meadows and along woodland edges; it tolerates both moist and dry soil conditions.

The best for the home gardener are long-producing varieties with high fruit quality. Of these, ‘Heritage’, bred at Cornell University in Ithaca, New York, is a popular and reliable selection. This fall-bearing variety yields loads of firm, flavorful, medium-sized, red berries on disease-resistant plants. ‘Prelude’, also from Cornell, is currently the earliest of the red raspberries, offering medium-sized red fruits on plants that occasionally produce a second crop in fall. There are also golden “red raspberries” such as ‘Anne’ developed at the University of Maryland in College Park, which bears large, yellow, conical fruits mid- to late season. ‘Nordic’, which produces prolific red berries in early summer, is hardy but coarse in appearance.

Native to the western United States and Canada, thimbleberries (*R. parviflorus*, Zones 3–9, 9–1) are beautiful, clump-forming shrubs with large, bright green, maplelike leaves and showy white flowers that bloom from late spring to early summer on second- and third-year shoots. Broad, flattened, scarlet-red berries that are tart and seedy are produced by late summer. The graceful, mounded, thornless shrubs perform best in well-drained soil and part sun. Wildlife is drawn to the flowers and fruit, and the foliage is a larval food source for the yellow-banded day sphinx moth (*Proserpinus flavofasciata*).

Another beautiful, garden-worthy bramble is the salmonberry (*R. spectabilis*, Zones 5–8, 8–5). Its pink, cupped, downturned flowers attract hummingbirds as well as bees and butterflies, and its fruits feed many animals. The large berries are very soft, somewhat dry and flavor varies from plant to plant, though they are generally valued for jam making. The shade-loving shrubs sucker freely and are best planted in naturalistic landscapes, especially where erosion control is needed.

Naturally inhabiting forests and fields from California into western Canada, the Pacific or California blackberry (*R. ursinus*, Zones 5–10, 10–1) has delicious black fruits



Hardy ‘Nordic’ is one of hundreds of delicious selections of the American red raspberry.

that are very sweet and juicy when ripe. This makes them popular among wild fruit gatherers as well as wild animals. Another common name is the trailing blackberry, because their spiny arching stems tend to root when they come in contact with soil. The mound-

ing shrubs produce clusters of white spring flowers that have elongated petals and attract many insect pollinators. One nice landscape feature is that these adaptable shrubs grow well in moist soils, making them a good fit for low spots in the garden.



Suited to shady, naturalistic landscapes, salmonberry has deep pink flowers and orange fruits.



American black elderberries develop into large shrubs that offer beautiful white summer flower clusters followed by attractive black berries that can be used to make jam, preserves, or juice.

## ELDERBERRIES

Native elderberries (*Sambucus* spp.) are large, bushy, tough, deciduous shrubs with high wildlife habitat value, making them all-around good berry plants for any garden.

Both the broad flattened clusters of fragrant, ivory-colored flowers and the dark, tart berries that follow are useful in the kitchen. The flowers flavor elderflower fritters and beverages, while the berries can be made into jam, jelly, and syrup (but are generally not eaten raw).

The American black elderberry (*S. nigra* ssp. *canadensis*, syn. *S. canadensis*, Zones 2–9, 9–1), grows along roadsides and meadows in much of North America. It has white flower clusters and black berries.

The red-fruited elderberry (*S. racemosa*, Zones 3–7, 7–1) is also native across much of temperate North America. Al-

though its fruits are not as tasty as those of its relative, it has several pretty selections including the compact, cut-leaf selection ‘*Tenuifolia*’, one of the best for small garden spaces. For added color and elegance, consider a new selection with filigreed chartreuse foliage trademarked as Lemon Lace (‘SMNSRD4’).

Elderberries thrive in full sun but will tolerate some shade. They grow best in slightly acidic to neutral soil, and prefer regular moisture during the growing season. They can get quite large (up to 12 feet tall and wide) over time, but can be pruned radically when needed. Plant two or three to provide optimal cross pollination and fruit set.

## GOOSEBERRIES AND CURRANTS

Like cultivated gooseberries, wild forms are prickly and bear tart fruit. The north-

ern Canadian gooseberry (*Ribes oxycanthoides*, Zones 2–6, 6–1) is a small, upright shrub with spiny stems. Small, starry, white flowers are produced in spring followed by round berries that turn from green to burgundy-red in summer. The round seedy berries feed wildlife and make delicious jam.

Adapted to the arid regions of the American Southwest, trumpet gooseberry (*R. leptanthum*, Zones 4–7, 7–1) is an upright shrub with spiny stems and tiny leaves. Its small, purple-black berries are tasty and used to make jelly and wine.

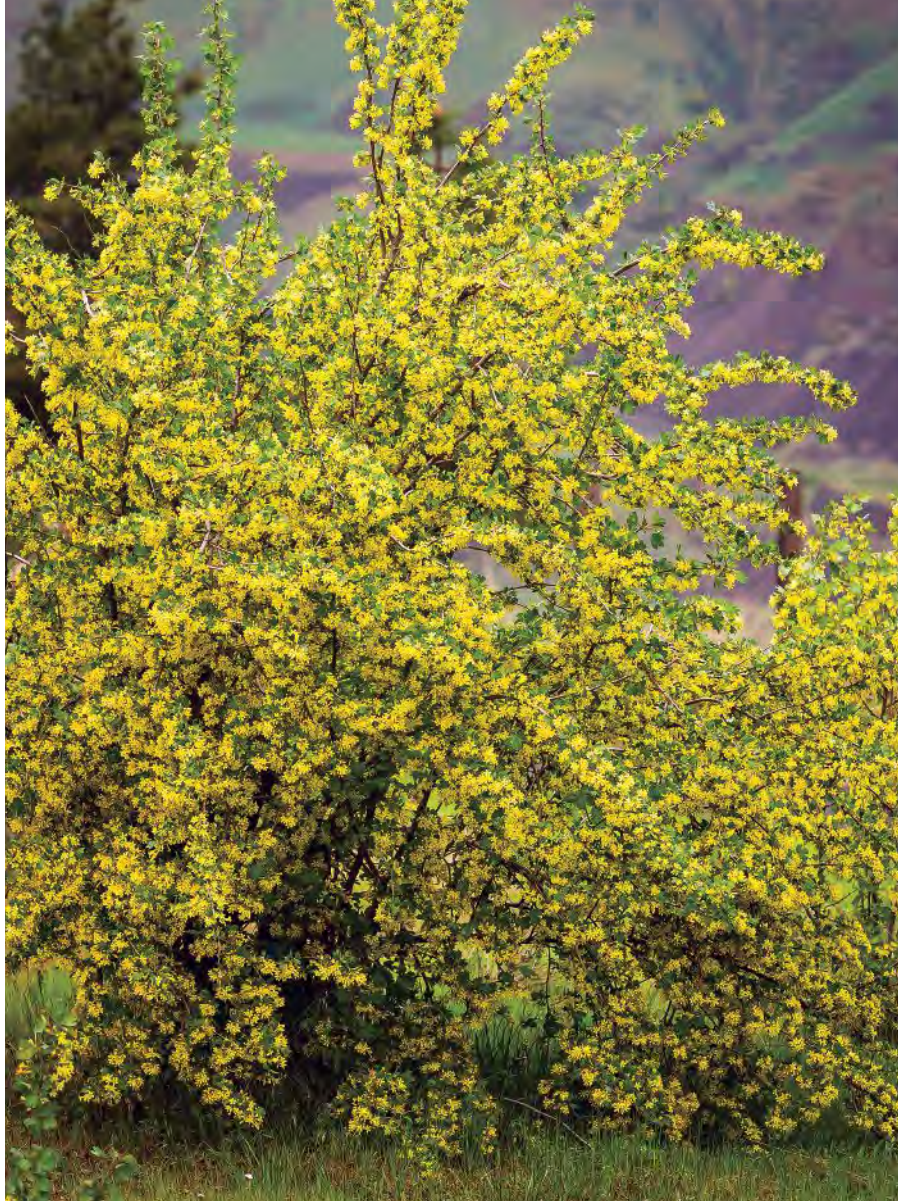
Another desirable *Ribes* is the clove currant (*R. odoratum*, Zones 4–8, 8–5). Although native across much of the West, it has become naturalized in the East. In spring it bears star-shaped, fragrant, yellow flowers that smell of spicy vanilla and are pollinated by bees. By summer, small deep gold or purple berries are produced; these turn black when ripe. A selection called ‘Crandall’ is a good choice for prolific fruiting. A related species, sometimes described as synonymous, is golden currant (*R. aureum*, Zones 5–8, 8–5).

All gooseberries and currants grow well in full to part sun and free-draining, neutral to slightly acidic soil. They are self-fruitful, but as with most fruiting plants, will benefit from cross-pollination. Grow them as an informal hedge or in small clusters.

A word of warning: Some states and counties within states have restrictions on the sale and/or cultivation of *Ribes*, due to concern over the spread of white pine blister rust, a devastating disease of white pine that requires both pine and a susceptible *Ribes* host to complete its life cycle. Check with your local Extension agent about restrictions in your state. (For more about white pine blister rust, see the web special linked to this article on the AHS website at [www.ahs.org](http://www.ahs.org).)

## STRAWBERRIES

Wild strawberries (*Fragaria* spp.) are especially delicious, with a pungent tart sweetness that lingers on the tongue. Like cultivated strawberries, they are adapted to many garden areas where low, spreading plants are needed, and they are perfect for container culture, thriving in moist, loamy soil. Only a few species are native to our continent, but all are edible, varying only in their degree of palatability.



The best-tasting of the wild strawberries, the Virginia strawberry (*F. virginiana*, Zones 5–8, 8–4), is native across North America. It is one parent of the cultivated strawberry (*F. ×ananassa*), which was developed in late 18th-century France as a happenstance cross between *F. virginiana* and the beach strawberry (*F. chiloensis*), though detailed genetic analyses suggest parentage is likely more complex. The surprisingly drought-tolerant Virginia strawberry produces best in full to part sun, bearing many small, sweet fruits from mid- to late spring. Its habitat value is broad: bees feed on the flowers, animals on the fruits, and the foliage is host to the larvae of gray hairstreak (*Strymon melinus*) and grizzled skipper (*Pyrgus centaureae*) butterflies.

The woodland, or alpine, strawberry (*F. vesca*, Zones 5–9, 9–1), is the most geographically widespread species, ranging across the temperate regions of the Northern Hemisphere, and is generally recognized as the first cultivated strawberry. Its flavorful little berries are pro-

**Golden currant, above left, has fragrant, exceptionally ornamental yellow blossoms and tasty fruits. Woodland strawberries, below left, are ideal for container culture, so the small but flavorful fruits are near at hand when they ripen in late spring.**

duced from late spring to summer on long stems that rise above the plants. The low-growing plants hover inches from the ground and spread by aboveground runners known as stolons.

### SAVOR THE FLAVOR

Think regionally when choosing the right berry for your garden, plant them in groups, care for them well, and you will be rewarded with plenty of fruit to harvest. Then again, you can always get to know your local wild berry patches and forage at the right time of year, where allowed. Either way, these berries are to be reveled in, popped into the mouth, or preserved for a later time when fresh summer berries are out of season and most appreciated.

*Jessie Keith is a horticulturist, writer, photographer, and garden designer based in Wilmington, Delaware.*



TOP: MARK TURNER. BOTTOM: NEIL SODERSTRÖM





BY CAROLYN SINGER

# *designing an* Inviting Garden

Whether you have a new garden or are refreshing an existing one, these tips will help you create a landscape that inspires you and other visitors to linger.



**Above:** A mix of shrubs and small trees interplanted with a variety of perennials turns this patio into a cozy nook, complete with a bench perfectly situated for whiling away a few quiet moments. **Opposite:** In the Glen Echo, Maryland, garden of Holly and Osamu Shimizu, a simple statue provides an enticing focal point to draw visitors down the shady path.

OPPOSITE: NEIL SODERSTROM; THIS PAGE: JERRY PAVIA

**C**REATING A GARDEN is a process. I have been absorbed in my own garden in California's Sierra Nevada foothills for almost four decades and still work in a few changes each year. Because the basic design was sound, each season I delight in landscaping choices made many years ago and am rewarded by my continuing attention to detail. These choices, founded on a few main design considerations, help any garden to be inviting when it is young, and work together even more powerfully as the garden ages. The overall goal, of course, is to draw visitors into the garden and then encourage them to pause at intervals during their visit so they have time to appreciate what is around them.

### GOOD CIRCULATION

The first important consideration is the circulation pattern within the space to be landscaped. In a newer garden, one in which the plants have yet to reach their full potential, hardscape elements offer the clearest definition for the spaces or "rooms" of a garden and how they might be used. These may include a beautiful walkway, a rock wall or steps, an artistic gate, water features, an arch, or a pergola.

When artfully employed, these elements encourage visitors to explore by offering destinations such as seating areas and access between focal points. For example, a curved path may be planted in a way that creates mystery, an invitation to see what lies beyond. In a small garden, a path may even disappear, its end hidden by tall ornamental grasses or a water fountain, as it meanders toward a bench.

While paths lead through a garden, benches and other seating are a patent invitation to linger along the way. This can impact a garden's circulation because the space requirements for two at a bistro table, for instance, are quite different from an area to be used for a large gathering of friends. Before you begin planting anything, imagine various scenarios, including accessibility for potential guests.

### STRONG BONES

Selecting plants to augment the primary structure of your garden is an exciting but challenging next step. When a landscape is in its earliest stages, it's best to start with trees and large shrubs. Before making selections, consideration must be given to expected mature height and spread, as well as the light and soil requirements of each plant. With thought-

**Gently curving, moss-covered steps beckon visitors to find out where they lead.**





In Linda Ernst's Portland, Oregon, garden, designed by Laura Crockett, accents such as the colorful baubles on graduated poles add whimsy, making the space feel more inviting. The decorative bird bath both encourages wildlife to visit and serves as a work of art.

## PLANTS WITH INVITING FEATURES

Plants that offer fragrant flowers, striking foliage, attractive bark, and more than one season of interest all help to maintain an inviting atmosphere year round. Here are a few plants that really stand out in my garden.

### Fragrant Flowers

Evergreen fragrant sweetbox (*Sarcococca ruscifolia*, Zones 7–9, 9–7) is the first fragrant shrub to bloom in my garden in February and March, enticing me to linger despite the chilly weather. Its white blossoms are tiny, yet their vanilla scent is powerful.

The strong fragrance of the spring-blooming *Clematis montana* (Zones 6–9, 9–6) by my front door stops me each time I pass by. Plus the foliage remains attractive throughout the growing season, never looking spent even in summer heat.



### Fabulous Foliage

Ornamental grasses are high on my list of desirable plants, especially because the deer do not eat them. Most of the ornamental grasses, both native and non-native, add movement with the slightest breeze. Many capture light as the sun plays in the leaves or blooms. Each has a very long season of interest.

My favorite focal plant for a small, shady garden or a “room” in a larger landscape is *Helleborus xsternii* (Zones 6–8, 8–5), which grows to two feet in height and three feet in spread. In winter light, the foliage has a silvery cast, especially late in the afternoon.

### Multi-Season Interest

Paperbark maple (*Acer griseum*, Zones 5–8, 8–4) is one of my favorite small trees, reaching between 20 and 30 feet tall. The one near my home’s front entry, shown here, invites attention in every season, whether it is viewed from a nearby bench, through the window that frames it, or while walking by on the path to the door. Exfoliating red-brown bark is only one of its many attributes. Fall foliage color lasts for weeks, with golden hues highlighting the softer reds. Seedpods hold on through winter winds.



Similar in mature size is my ‘Royal Star’ star magnolia (*Magnolia stellata*, Zones 4–9, 9–5). Its lightly fragrant, multi-petaled, ivory flowers open in late spring, undaunted by the stray hail storms and frosts that are common in my climate at that time of year. As the foliage turns golden yellow in fall, fuzzy buds form for next spring’s bloom. The grayish-white bark is attractive all year, but really appears to glow in winter. —C.S.



ful placement, they will mature into valuable specimens that anchor all the other elements of the garden. They also can enhance a garden’s interest with blossoms, fragrance, fall color, and interesting seeds or bark.

One garden I know in the Sierra foothills beautifully illustrates how woody plants can serve multiple functions in a landscape. In this garden, a fragrant mock orange (*Philadelphus lewisii*, USDA Zones 4–9, 9–1) near a path frames a view of a large lake on one side and a wooden gate to a utility area on another side. Thus one side opens and enhances the water scene, while the opposite side of the same plant accents the gate, distracting attention from the view of compost and garbage bins beyond.



## FILLING IN THE FRAMEWORK

Once the circulation patterns and framework of the garden have been decided, continue to play with the details that define an inviting garden: seasonal changes, fragrance, color, light, and movement. You can do this by adding plants such as annuals, perennials, groundcovers, ornamental grasses, and bulbs. I also recommend selecting flowering plants that will attract and feed pollinators for as long a season as possible. These essential insects make any garden more lively, enticing passersby to pause and watch their antics.

Start by creating a list of your favorites and make selections based on which are most appropriate to the location. Remember that landscapes do not need to be crowded to be effective, so make sure to


leave room for growth and new ideas.

Depending on individual taste, garden spaces also can be enhanced with natural, eclectic, or elegant garden art. Some gardeners might incorporate stately statuary, while others prefer more whimsical objects such as an old wheelbarrow filled with colorful flowers. One of my favorite local gardens is owned by an artist who has filled it with old farm implements and rusted metal scraps that she has turned into unique sculptures.

## FOLLOW YOUR PLAN

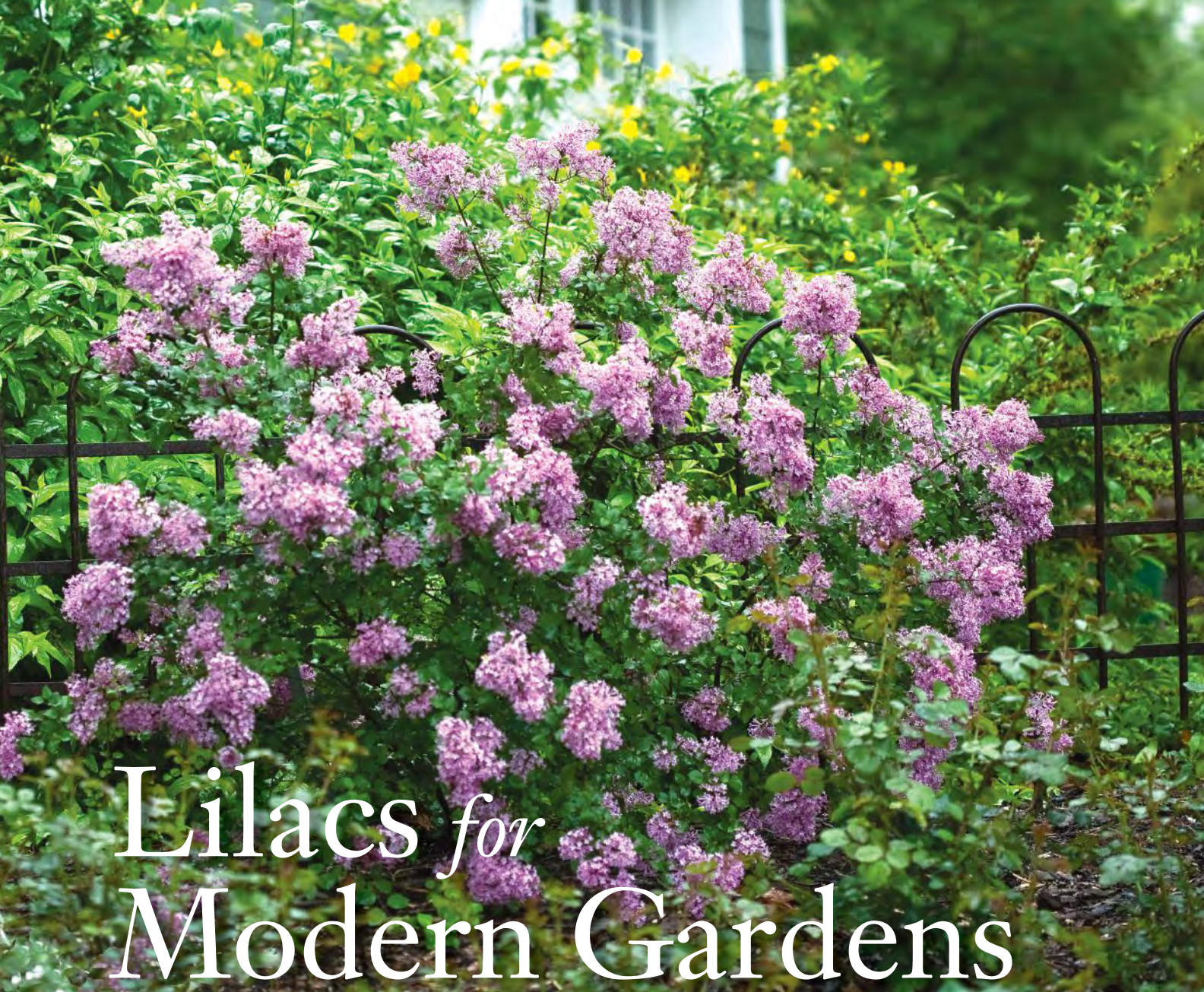
Occasionally in older gardens, the original definition of space may benefit from the thoughtful removal of a shrub or even a tree. However, the garden that has been planned carefully from the beginning, with attention

**Above:** In this formal Long Island, New York, garden designed by Kathy Fleming, the stone sculpture anchors a garden intersection, prompting visitors to stop and contemplate options before choosing a path to explore the exuberant plants along the way.

paid to the placement of trees and shrubs, will mature into a landscape that still works, decades after its creation. And as you continue to fine tune your own garden, you'll know you're on the right track when you find yourself and other visitors lingering to appreciate the results. 

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# Lilacs *for* Modern Gardens

Lilacs have fallen out of favor in the landscape for a variety of reasons, but many selections—new and old—are worth growing in contemporary gardens.

BY PATRICIA A. TAYLOR

**O**N SUNDAY, May 11, 2014, close to 40,000 people jammed the grounds of Harvard University's Arnold Arboretum in Boston, Massachusetts, to savor the fragrance and voluptuous color of its blooming three-acre national lilac collection. A little over three months later, I wandered through the same collection, which at that time was a vista of lanky green shrubs—many displaying mildewed and insect-chewed leaves.

Those two experiences pretty much sum up popular perceptions of shrub

lilacs (*Syringa* spp.) today. With their ravishing floral scents and the lovely colors of their late spring or early summer flowers, they have been treasured for centuries in both Europe and Asia. They were among the first ornamental plants settlers brought to North America to remind them of home. These gangly shrubs were typically placed near sun-

**For smaller, modern gardens, cultivars like Bloomerang 'Purple', above, offer more compact stature and extended season of bloom.**

ny back doors and windows, where their exquisite fragrance could be enjoyed up close in spring, but also where their otherwise undistinguished features would be out of sight for the remainder of the year.

As yards became smaller and gardeners started placing greater value on plants that offer interest in more than one season, lilacs faded in popularity because of their 20-plus-foot mature height, susceptibility to borers and disfiguring foliar diseases, tendency to sucker, and relatively brief period of attractiveness.

Fortunately for those of us who love lilacs, breeders have focused on developing selections with improved traits such as compact stature, disease resistance, and repeat blooming. Taking a fresh look at lilacs, both old and new, offers an opportunity to discuss cultivars suited not only for contemporary gardens, but also for different regions of North America.

But before doing that, let's get reacquainted with the lilac genus as a whole.

## THE GENUS SYRINGA

Lilacs are members of the olive family (Oleaceae), which includes jasmines (*Jasminum* spp.), forsythias (*Forsythia* spp.), fringe trees (*Chionanthus* spp.), and osmanthus (*Osmanthus* spp.). Of the 20 to 30 lilac species that have been identified, most are native to Asia, primarily China. Two are native to central and southeast Europe. Most lilacs are categorized as shrubs, but there are also two tree species—*S. reticulata* and *S. pekinensis*—that are not included in the scope of this article.

Lilacs cross-pollinate readily, which has aided hybridizers in breeding for desired traits. Because of the ease of cross-pollination—and because early breeders did not always keep accurate records of the plants they used—the parentage of some hybrid groups and cultivars is uncertain, and some hybrids are lumped into groups rather than being assigned to individual species.

The blooming of lilac flowers is triggered by temperature change rather than day length, which has led to researchers recording lilac bloom times as a way of tracking climate change. The onset of bloom varies not only by region but by species or group. “In the middle states, bloom time begins in mid-April and continues to the end of May; on the East Coast it begins in late May and extends into June,” wrote noted lilac breeder John Fiala in his magisterial work, *Lilacs: A Gardener's Encyclopedia* (see “Resources,” page 32). On the West Coast, flowering can begin in March in parts of southern California, but may be delayed into April, May, or even June in cooler areas.

## COMMON LILAC

Native to the mountains and hillsides of southeastern Europe, common lilac (*Syringa vulgaris*, USDA Hardiness Zones 3–7, AHS Heat Zones 7–1) is the best known and longest cultivated species,



Often included on lists of favorite lilacs, heirloom ‘Mme. Lemoine’ has double white flowers with a lovely fragrance.

with a history dating back at least 500 years in Europe. Its large clusters of sensuously fragrant flowers, which bloom for four to six weeks in late April to May, depending on region, range in color from creamy white to dark purple.



A hybrid between common and broadleaf lilac, ‘Esther Staley’ is a prolific early bloomer with fragrant, pink flowers.

The groundwork for modern lilac breeding can be traced to Victor Lemoine, who in 1849 founded an eponymous nursery in Nancy, France. Lemoine and his descendants developed and introduced more than 200 cultivars of common lilac that featured not only a wide range of rich colors but also double flower forms. Many remain treasured to this day, including ‘Mme. Lemoine’ (1890), with scented double white flowers; ‘Belle de Nancy’ (1891), with satiny rose flowers that are still considered among the most fragrant; and ‘Ami Schott’ (1933), which has rose-colored buds that open to double blue flowers.

These and all common lilac cultivars are known as mid-season bloomers. With the introduction of species from Asia in the late 1800s, however, it became possible to extend the season for lilac blooms.

## EARLY BLOOMS FROM ASIAN LILACS

Seeking a way to produce lilacs that flowered earlier than common lilac, the Lemoine family began crossing the broadleaf lilac (*S. oblata*), native to China, with the common lilac. Over time, as they and other breeders crossed and recrossed the two species, the resulting plants were organized under the umbrella of a hybrid species *S. ×hyacinthiflora*. Termed “early-blooming” lilacs, they generally bloom about three weeks in advance of common lilacs.

In the 1930s, American and Canadian breeders started to get into the act. Walter B. Clarke of San Jose, California, introduced the extremely fragrant ‘Blue Hyacinth’, which has purple to pink buds that open to a soft blue, and ‘Esther Staley’, noted for its fragrant pink blooms that hold up well in cut flower arrangements. Both are prized to this day, particularly in California.

Working in frigid Dropmore, Manitoba, renowned hybridizer Frank Skinner bred lilacs that handle the bitter chill of that area as well as the warmer temperatures to the south. In 1935, he introduced violet ‘Pocahontas’ and in 1966, the year before he died, he released soft pink ‘Maiden’s Blush’. “Should you want only one Skinner introduction, let it be ‘Maiden’s Blush,’” wrote Fiala in *Lilacs: A Gardener's Encyclopedia*.

Evelyn King, owner of Syringa Plus nursery in Hooksett, New Hampshire, recommends ‘Cheyenne’, an early bloomer with fragrant, purplish-blue flowers. “It’s also

resistant to mildew and insect damage,” she notes. But what really makes this lilac one of her favorites is its fall color. “Its burgundy to bronze foliage is absolutely gorgeous.”

The inclusion of Asian lilacs in breeding programs also led to the creation of later blooming selections, which are often listed as part of the Villosae Group. Among these are the noteworthy Preston Hybrids (*S. ×prestoniae*), which are in flower for a good two weeks after the last of the common lilacs finish blooming.

The hybrids are named after Isabelle Preston, who started introducing lilacs from the Central Experimental Farm in Ottawa, Canada, in 1920. Several of her 47 cultivars received Awards of Garden Merit from the United Kingdom’s Royal Horticultural Society, including the fragrant, soft-pink flowered ‘Bellicent’ in 1946.

### STATURE OF LIMITATIONS

Only when speaking of lilacs would the adjective “dwarf” be applied to six-foot-tall shrubs. That’s because common lilacs can reach 20 feet tall and the Asian lilacs are generally in the 10- to 12-foot range. And while lilacs can be cut back to reduce

## Resources

**International Lilac Society**, [www.internationalilacsociety.org](http://www.internationalilacsociety.org).

**Lilacs: A Gardener’s Encyclopedia** by John L. Fiala. Revised and updated by Freek Vrugtman. Timber Press, Portland, OR, 2008.

**Manual of Woody Landscape Plants** (6th Edition) by Michael A. Dirr. Stipes Publishing, Champaign, IL, 2009.

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**Camellia Forest Nursery**, Chapel Hill, NC. (919) 968-0504. [www.camforest.com](http://www.camforest.com).

**Forestfarm at Pacifica**, Williams, OR. (541) 846-7269. [www.forestfarm.com](http://www.forestfarm.com).

**Klehm’s Song Sparrow Farm & Nursery**, Avalon, WI. (800) 553-3715. [www.songsparrow.com](http://www.songsparrow.com).

**Select Plus International Lilac Nursery**, Mascouche, Quebec. (450) 477-3797. [www.selectpluslilacs.com](http://www.selectpluslilacs.com).

**Syringap Plus**, West Boxford, MA. (978) 352-3301. [www.syringaplus.com](http://www.syringaplus.com).

their height, “there is no way a common lilac can be cut back to three feet and produce blooms,” notes Jack Alexander, plant propagator at the Arnold Arboretum.

Given that a lilac dwarf can reach six feet, two selections derived from Asian lilacs—‘Palibin’ and ‘Miss Kim’—might well be called midgets. Both tend to bloom later than the common lilac and both are very disease resistant.

‘Palibin’, a selection of Meyer lilac (*S. meyeri*, Zones 4–7, 7–1) is the shorter of the two, topping out at three to five feet tall and wide after a decade or more of growth. Its origin is unknown, but it has been around since the 1920s. Its deep purple buds open to fragrant, pinkish-lavender blooms. With dark green, glossy leaves resembling those on boxwoods, ‘Palibin’ remains good-looking throughout the growing



Growing only four or five feet tall, ‘Palibin’ is suited for a mixed border or as a low hedge. Its purple buds open into wands of pink flowers.





Part of the Fairy Bells series, Tinkerbelle grows to about five feet tall and has bright pink flowers.

season and has become a parent plant in many breeding programs.

The origins of 'Miss Kim', a selection of Manchurian lilac (*S. pubescens* ssp. *patula*, Zones 5–8, 8–3), can be traced back to 1947, when Elwyn Meader, a horticulturist at the University of New Hampshire, was stationed in Seoul, South Korea. While on a mountain hike, he spotted a small, lonely lilac growing in a wide crack in a cliff. Meader harvested 12 seeds, which he grew upon return to his university duties. While all the resulting seedlings bore fragrant, pale purple flowers, one was notably more compact than the others. 'Miss Kim', which generally grows no taller than five feet, was introduced in 1954.

Neil Holland of North Dakota State University used 'Palibin' as one of the parents for his trademarked Fairy Bells series, released through Bailey Nurseries in St. Paul, Minnesota. Tinkerbelle ('Bailbelle') and Sugar Plum Fairy ('Bailsugar') are distin-

guished not only by their disease resistance and short stature—four to five feet tall—but also for their rich pink flower color. Indeed, Tinkerbelle, introduced in 2000, was the first true pink-flowered dwarf. Sugar Plum Fairy has deeper pink flowers than its sibling and is extremely fragrant.

### REPEAT BLOOMERS

Reblooming lilacs have been known for almost a century. All are of dwarf Asian origin and belong to what lilac cognoscenti refer to as the Pubescentes Group.

In the 1960s, French biochemist Georges Morel introduced 'MORjos o6oF', which is trademarked under the intentionally more palatable name Josée. It bears fragrant, lavender pink flowers, reblooming reliably in cooler regions of North America.

When Tim Wood, product development manager at Spring Meadow Nursery in Grand Haven, Michigan, set out to breed a better, more adaptable reblooming lilac, he

## LILAC CARE

Lilacs over a century old are known at several sites in North America, so it's clear these shrubs will thrive if planted in the right situation and maintained well. Basically, lilacs require full sun and should be planted in a site where they will get at least eight hours daily. They grow best in humus-rich, free draining soil that has a neutral to slightly acidic pH. Mulch around the base to prevent competition from weeds and top dress with compost or well-rotted manure every few years.

Because good air circulation helps reduce the incidence of diseases such as powdery mildew and bacterial blights, regular pruning is particularly important. Remove root suckers promptly and deadhead flowers as soon as blooming is complete. Thin out crossing and damaged branches to keep the interior open. Always sterilize pruners in alcohol or bleach between cuts to prevent the spread of disease. In early summer, scan the stems of lilacs for the telltale holes and sawdust-like "frass" that indicates lilac borers. Insecticides are available to kill these pests, but pheromone traps are a less toxic approach. —P.A.T.

used Josée in his hybridizing program. One of the offspring, trademarked Bloomerang when it was introduced in 2009, has become a top seller. Now offered through Proven Winners, the Bloomerang series includes 'Purple' (the original), 'Dark Purple' (the most fragrant), and 'Pink Perfume' (introduced this spring). All grow four to six feet tall. Wood says he has received feedback that the shrubs do well as far south as North Carolina and Oklahoma. There have been reports, however, that the further south they are grown, the less they rebloom.

In Mascouche, Quebec, award-winning lilac breeder Frank Moro was also working on rebloomers. In 2003, he introduced 'Colby's Wishing Star', which is covered in fragrant pinkish lilac flowers in spring and sporadically reblooms throughout summer and into fall. "It's a great plant," says Deanna Curtis, curator of woody plants at the New York Botanical Garden, who also cites its clean foliage and compact habit.

## HEAT AND HUMIDITY TOLERANCE

Careful siting and pruning of lilacs (see “Lilac Care,” page 33) will do much to ensure good health and beauty, but to this point breeding has done little to address susceptibility to fungal diseases such as powdery mildew. This is partly due to the paucity of breeding programs concentrating on the trait. Indeed, the U.S. National Arboretum in Washington, D.C., is probably home to the only such attempt.

Starting in the 1970s, plant breeder Donald R. Egold began a series of crosses with an emphasis on producing lilacs that would do well in warmer climates. After testing many seedlings in the heat and humidity of Washington summers, he sent plants for trialing to nurseries and universities throughout the eastern half of the country—from as far south as Alabama and Mississippi to as far north as Minnesota.

Egold's untimely death in a car crash in 1990 put an early end to the promising program, and only three disease-resistant lilacs, all early bloomers, have been introduced since 2000. ‘Betsy Ross’, covered in fragrant white flowers, is best for warm-summer/mild-winter climates; ‘Old Glory’, probably the most disease resistant, has fragrant, blue-purple flowers; and ‘Declaration’, the only one to take deep cold, bears very fragrant reddish-purple flowers and has deep burgundy fall foliage.

## LILACS FOR THE WEST

People often assume lilacs are primarily suited to the East and Midwest, but there are a number of selections—in addition to ‘Blue Hyacinth’ and ‘Esther Staley’, discussed earlier—that are acclimated to areas of the West Coast. “Lilacs are not just for the northeastern United States,” says University of California at Riverside genetics professor J. Giles Waines, who is active in lilac breeding programs.

Waines cites ‘Excel’ as an example. A Skinner hybrid bred in Manitoba, it was originally shipped to Riverside to be used as root stock for olive trees. The olives never took off, but the sprouting lilacs with fragrant lavender flowers flourished. Waines also names the extremely fragrant ‘Krasavitsa Moskv’ (‘Beauty of Moscow’), which was bred in Russia but thrives in southern California and in most of the country. It is prized for its myriad pink buds opening to soft white flowers.



The Descanso hybrids, a group of *S. ×hyacinthiflora* selections primarily developed at Descanso Gardens in La Cañada Flintridge, California, were released starting in the 1950s. Blooming with limited winter “chilling” hours and tolerant of heat, they have proven reliable in mild-winter

A U.S. National Arboretum introduction, ‘Declaration’, above, is early blooming with very fragrant flowers. ‘Lavender Lady’, left, is one of the Descanso Hybrids, bred for tolerance of mild-winter climates.

climates. Selections include ‘Lavender Lady’, ‘Blue Boy’, and ‘Sylvan Beauty’.

## RECONSIDERING A LILAC

Most lilac breeders have neither the time nor the resources to trial their creations throughout North America. So, if you think any of these lilacs sound perfect, you might want to check with your local public gardens to see if they are growing there. (For a list of public gardens and parks that have extensive lilac collections, see the web special linked to this article on the AHS website.) Or, simply try it in your garden. It will be a gamble, but think of the fragrant, beautiful results should it pay off. 🌿

*A frequent contributor to The American Gardener, Patricia A. Taylor lives in Princeton, New Jersey.*

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IT'S COMMON to see plants flagged as native in catalogs, magazines, and books. This usually means that the plant occurs naturally in a particular region, ecosystem, or habitat without human intervention. However, most cultivars and hybrids of native plants have been developed by gardeners and plant breeders; in many cases they have never grown in the wild.

For example, a new coral bells (*Heuchera* spp.) cultivar called 'Peach Flambé' includes genes from three wild American species (*H. americana*, *H. micrantha*, and *H. sanguinea*), whose native ranges don't overlap anywhere in North America so they cannot hybridize naturally. While this

Native plants are key to creating a wildlife-friendly garden, but how well do cultivars of natives fill this role?

BY GRAHAM RICE

plant has native antecedents, it is not, by strict definition, native. (For more about plant nativity, see the sidebar on page 39.)

Several years ago, perennial plant expert and author Allan Armitage was looking for a term for cultivated forms and hybrids of native species, like 'Peach Flambé', that display traits different from those within the normal genetic range of wild plants. He coined "nativar," which is a combination of two words—native and cultivar. The term "cultivar" is itself a contraction of the words "cultivated variety" and refers to a plant selection that arose in cultivation or has been specially chosen for its value in gardens.

Compared to the species with which it is associated, a nativar may have more flowers, larger flowers, or flowers in different colors or double flowers. Plants may be less fertile or sterile. Foliage may be variegated, or in a range of colors not typical of the species. Plants may be shorter, taller, more vigorous or less so, and more tolerant of pests and diseases.

But one persistent question still troubles some people, ranging from academics to



## coming to terms with

ecologists and home gardeners: Are nativars as valuable to wildlife as wild genotypes?

### UNFRIENDLY TRAITS

The answer, it appears, can vary. "Since nativars are typically selected for traits such as appearance, compactness, and length of flowering, some people are concerned that their ecological functions may be compromised compared

to their open-pollinated, natural gene pool," says Neil Diboll, president of Prairie Nursery, who has been growing and selling native plants in Westfield, Wisconsin, for more than 40 years.

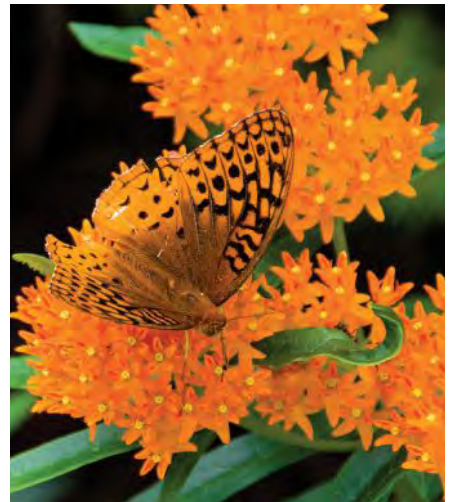
This certainly appears to be the case when it comes to double flowers, for instance. 'Pink Double Delight', a double-flowered cultivar of purple coneflower (*Echinacea purpurea*), does not produce



one of the insects that is deterred, however, there is disagreement about whether this is a positive or negative attribute. One school of thought is that a native insect is deprived of its host; the other is that noticeable damage to a garden ornamental is reduced.

### SUPPORTING WILDLIFE, ATTRACTIVELY

On the other hand, many natives seem to support wildlife in much the same way as their wild species, while offering gardeners and landscape designers improved ornamental attributes. A good example is the 'Hello Yellow' selection of butterfly weed (*Asclepias tuberosa*), which is found in the wild over much of the eastern half of the United States. The species typically has orange flowers but sometimes yellow, gold, or red shades appear. 'Hello Yellow' is an open-pollinated selection with yellow flowers, sometimes with orange tints. In other ways it is similar to



Opposite page: The dark purple foliage of ninebark selections such as 'Monlo' offers the benefit of deterring insect pests. This page: The butterfly weed selection 'Hello Yellow', above left, seems to attract pollinators just as well as the species, above, which has orange flowers.

# Nativars

pollen or seeds, so a wide range of wildlife finds this plant of little value. Similarly, the wild New England aster (*Symphotrichum novae-angliae*) usually boasts between 40 and 100 colorful ray florets and between 50 and 110 disk florets. In the double-flowered nativar, 'Marie Ballard', the disk florets have changed into rays, which make it difficult, if not impossible, for insects to reach the flowers' pollen.

With either of these natives, it's clearly unrealistic to plant them with the expectation that they would be as valuable to pollinators as the wild single-flowered type.

Foliage color is another trait of concern to ecologists. The popular dark-leaved ninebark (*Physocarpus opulifolius*) selections, including Diabolo ('Monlo'), seem to suffer less from insect damage than pure native plants. Because the native ninebark beetle is

the wild species and has the same appeal to hummingbirds and butterflies.

The wildlife-friendly California native sage, *Salvia sonomensis*, suffers from various fungal diseases, perhaps due to intolerance of the irrigation required by neighboring plants in some landscapes. Its nativar hybrid with *S. mellifera*, 'Mrs. Beard', however, is equally attractive to pollinators but less susceptible to disease.

Culver's root (*Veronicastrum virginicum*), which is native throughout eastern North America from Canada to Texas, has short spikes of white flowers. A cultivar called 'Lavendelturm' features extended spikes of lavender flowers that seem to be equally as attractive to insects as the species, but bloom over a longer period.

The bright red tubular flowers of bee balm (*Monarda didyma*), which is native to most of the East as far south as Georgia, are popular with hummingbirds, butterflies, and bees. 'Gardenview Scarlet', selected at the Gardenview Horticultural Park in Strongsville, Ohio, has a longer flowering season, good resistance to mildew, and an improved sturdy habit in the garden. The flowers are similar in color and form to those of the wild species so they appear to be just as popular with pollinators.



## Resources

### Armitage's Native Plants for North American Gardens

by Allan M. Armitage. Timber Press, Portland, OR, 2006.

**Bringing Nature Home: How You Can Sustain Wildlife with Native Plants** by Douglas W. Tallamy. Timber Press, Portland, OR, 2009.

**The Living Landscape: Designing for Beauty and Biodiversity in the Home Garden** by Rick Darke and Douglas W. Tallamy. Timber Press, Portland, OR, 2014.

**North American Native Plant Society**, [www.nanps.org](http://www.nanps.org).



Some winterberry (*Ilex verticillata*) cultivars—including Berry Heavy ('Spravy') and Berry Poppins ('FarrowBPop')—have been selected for their increased berry crop, enhancing their ornamental value as well as benefiting berry-eating birds such as cedar waxwings.

## GUIDELINES FOR THE GARDEN

So among all the nativars available, what attributes should ecologically-minded gardeners be looking for? Are there any guidelines for selecting ones that are both attractive and wildlife friendly?

Dale Hendricks, who founded the wholesale native plant nursery North Creek Nurseries and is now running Green Light

When it comes to insect appeal, not all nativars are equal. *Heuchera* 'Peach Flambé', top, appears to have floral characteristics little different from its parent species, whereas the blossoms of 'Pink Double Delight' purple coneflower, above, lack pollen and do not produce seeds.

Plants, both in Landenberg, Pennsylvania, suggests seeking out nativars that "look and act like the species, only longer flowering—*Lonicera sempervirens* 'Major Wheeler' comes to mind." He also suggests those that are "hardier, such as *Gelsemium sempervirens* 'Margarita', and ones whose flower types look like the species but the plants are shorter such as some of the dwarf Joe-Pye weed selections (*Eutrochium purpureum*)."

Annie White, a graduate student at the University of Vermont in Burlington, agrees. She has been conducting field re-

search comparing nativars to wild genotypes in terms of their usefulness to native pollinators, and her results so far show that "nativars that are most similar to their wild genotype parent in size, flower abundance, flower color, and bloom period are more likely to attract as many pollinators per plant as the straight species." To illustrate the effect of altering one of these traits, she notes that "bee pollinators have strong color preferences, so I've seen drastic differences in pollinator visits when a nativar has a less attractive flower color."



Researchers have not yet determined if nativars found in the wild, such as aromatic aster (*Symphotrichum oblongifolium*) 'Raydon's Favorite', are better suited to wildlife than cultivars discovered in a garden or nursery or developed by plant breeders.

But it is not only pollinators that are important. These insects may be more colorful, more attractive, and more easily noticed, but larvae that may use nativars as food plants are just as important. As Diboll puts it, "If your plants are not being eaten,

they are not supporting any insects. And without insects, the foundation of the food chain is compromised."

Douglas W. Tallamy, professor of entomology and wildlife ecology at the University of Delaware in Newark and author

of *Bringing Nature Home* (see "Resources," page 38), sums up the issue as it relates to the more ornamental foliage of some nativars, including the previously mentioned ninebark. "Purple leaves are loaded with anthocyanins, chemicals that deter insect feeding. Variegated leaves have less chlorophyll and are probably less nutritious. Such cultivars are likely to be less productive in terms of supporting insect herbivores."

But crucial to plant selection for the gardener, landscaper, or restoration ecologist when planning a new planting, is the goal of the project. "If a gardener is interested only in creating plantings that are both natural and colorful," says Diboll, "nativars certainly offer a good variety of choices." If the goal is to create habitat for pollinators, birds, and other desirable wildlife, nativars should be chosen judiciously.

"In gardens that are designed for both their ecological value and aesthetic value, I think that there is a place for nativars and non-native cultivars," White concurs. But to ensure maximum wildlife value, she recommends "using wild genotype native plants for ecological restoration projects."

## NATIVITY OF PLANTS

When it comes to plants, nativity can be a bit confusing, partly because a plant's distribution changes over time. Some horticulturists and ecologists consider plants that were growing in North America before the continent was colonized by Europeans in the 17th century to be native, but not everyone agrees with this timeline.

"A native plant is one that occurs in a given physical location or region at a specific time in geologic history. Nativity can change over time as plants migrate to new locations, or disappear from regions in which they once occurred," says Neil Diboll, president of Prairie Nursery in Westfield, Wisconsin.

There are many examples in the fossil record of plants that once inhabited a region but no longer grow wild there. A more recent example that Diboll cites is purple coneflower (*Echinacea purpurea*), which was once documented in several counties in Michigan, where it is no longer found in the wild.

Studies show that climate change is accelerating the process of plant movement. "An example of a native plant that is migrating northward due to climate change is pokeweed (*Phytolacca americana*)," says Diboll, who notes that it moved into his property over the last 10 years, in a county where there was no record of its wild distribution. "I expect there will be additional examples of plants moving northward as the climate warms," he says.

—G.R.

## PROPAGATING NATIVARS

Another factor can have an impact on the issue: how native genotypes and nativars are propagated. The common notion that native plants are propagated mainly by open-pollinated seed, which preserves their genetic diversity, whereas nativars are propagated vegetatively, which essentially produces genetically identical plants, is misleadingly simplistic.

Native species are often propagated by open-pollinated seed but also sometimes by cuttings or division. Similarly, there are nativars that are propagated by seed such as those of aspen fleabane (*Erigeron speciosus*), as well as many forms of yarrow (*Achillea millefolium*), in single and mixed colors. Hundreds of selections of the seed-propagated annual California poppy (*Eschscholzia californica*), have been developed—and new introductions continue.

There is also a very important distinction between natives propagated from seed collected locally in the wild and those propagated by seed collected from a succession of stock plants in the nursery, or bought from a seed supplier in another region of the country. In many cases, plants raised from cultivated stock are quite different from local wild plants.

For plants that have a broad native range, provenance—or region of origin—may play an important role in how well adapted they are to pollinators in different areas. Stocks of, say, blazing star (*Liatris spicata*), derived from wild Florida plants would be unsuitable for a restoration project in Maine, where local, cold-tolerant stock would be more appropriate.

According to Hendricks, all these unknowns undermine the usefulness of the term “nativar.” “I’m not sure it clarifies things as much as we’d like,” he says. Hendricks makes it a point to specify the genetic origins of the native species his nursery sells, yet very few other nurseries provide information about their plants’ provenance.

## WILD OR CULTIVATED ORIGINS

A related consideration is a nativar’s place of origin. They are discovered in a variety of settings, ranging from “sports” spotted in the wild, to intriguing selections identified in home gardens or nurseries.

Don Jacobs of Eco Gardens in Decatur, Georgia, has spent decades selecting garden-worthy individual plants from wild

populations and introducing them to cultivation; in fact, the current boom in heuchera introductions began with individual plants that he selected from the wild, including *Heuchera americana* ‘Dale’s Strain’. He also found two familiar cultivars of the aromatic aster (*Symphotrichum oblongifolium*), ‘October Skies’ and ‘Raydon’s Favorite’, in the wild, as well as ‘Champlin’s Red’ and ‘Mohonk Red’, both selections of native witch hazel (*Hamamelis virginiana*).

But is *Heuchera micrantha* ‘Ruffles’ inherently less valuable than ‘Dale’s Strain’ because it arose in a garden in Oregon rather than in the wild? Are those nativars

## LOOKING AHEAD

Research is underway in various parts of the country to determine which nativars are as ecologically valuable as wild genotypes, the findings of which will be of interest to many gardeners. But to take a more proactive approach, perhaps new nativars can be developed to fill ecological, rather than simply ornamental, needs.

“With a heightened sensitivity to our environment, and increased emphasis on the ecological role humans play in nature, future trends in nativars should include more than just compact forms, leaf color, and flower size, color, and length



Nativars, such as the many selections of California poppy, are often propagated by seed.

of the aromatic aster superior in some way to ‘Fanny’s Aster’, an old passalong garden favorite from South Carolina? How do ‘Little Suzie’ and ‘Tennessee Beauty’, two witch hazels that arose in Tennessee nurseries, measure up to ‘Champlin’s Red’ and ‘Mohonk Red’ from New York?

Research may offer answers to such questions, but for now we face more of a philosophical preference than a clear genetic distinction. “If your choice is between a cultivar of a local native plant and a plant from Asia, I would always take the native cultivar,” says Tallamy. But whether you insist on a nativar of wild origin or are happy with one that arose in a garden or nursery,

of bloom,” says Diboll. “Consideration should also be given to the amount and palatability of nectar produced by flowers, their seed production, and other factors that affect a plant’s contribution to supporting wildlife in the garden.”

Given that plant breeding continues to push the boundaries in regards to traits such as appearance, disease resistance, and drought tolerance, developing nativars with an enhanced ecological role doesn’t seem like too much of a stretch.

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*An award-winning writer of nearly 30 books, Graham Rice splits time between gardens in Pennsylvania and the United Kingdom. He blogs at [TransatlanticGardener.com](http://TransatlanticGardener.com).*





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## Potatoes: Underground Treasures

by Barbara Pleasant

**E**ASY TO GROW and a cinch to store, potatoes (*Solanum tuberosum*) provide a dense supply of nutrients. You can grow any gourmet fingerling or dainty boiling potato you find at the market, or stock your cellar with classic varieties such as ‘Kennebec’ and ‘Red La Soda’. Novelties only a few years ago, potatoes with yellow, pink, or blue flesh are now favorites with many home gardeners.

Early-maturing varieties can be grown in large containers for as long as cool weather lasts, and they do especially well in large cloth bags, which allow more air to reach the roots compared to pots. Because potatoes stop making tubers when soil temperatures rise above 80 degrees Fahrenheit, they are most productive when grown from spring to summer (fall to spring in warm winter regions).

Just before the tubers begin forming, most potatoes produce starry blossoms that usually echo the skin color of the spuds: tan-skinned selections bloom white, red-skinned potatoes bloom pink, and varieties with purple skin produce lavender flowers.

Cultivated in South America for more than 10,000 years, potatoes were brought to Spain in the early 1570s, and later recrossed the Atlantic to North America. Potatoes became a staple food in the western world by the mid-1800s. Today, the average American consumes about 115 pounds of potatoes each year. Eaten plain, they contain no fat or cholesterol and are an excellent source of potassium and vitamin C.

### GROWING GUIDELINES

Order certified disease-free seed potatoes from a reputable supplier (see “Sources,” opposite); don’t use grocery store potatoes because they are often treated with a chemical that prevents sprouting. The month preceding your last spring frost date is the best time to plant potatoes. Should late frost threaten potatoes that are up and growing, cover the planting



Fingerlings such as ‘French Fingerling’, above, are superb for roasting. Left: Potato flower color echoes the tuber’s skin color.

with old blankets or a floating row cover until the cold weather passes.

A few weeks before planting, you need to prepare the potatoes and sprout—or “chit”—them so they are ready to start growing the moment they go into the ground. Begin the chitting process by sorting your potatoes by size. Seed potatoes smaller than a chicken egg should be plant-

ed whole. Cut larger seed potatoes into pieces, each bearing at least two eyes, and allow to dry in a paper bag for a few days, shaking the bag daily to keep the pieces from sticking together. Then expose the spuds to sunlight so they begin to sprout.

Potatoes will grow in any good garden soil, but they thrive in loamy, well-drained acidic soils with an pH between 4.8 and 6.5. If your garden soil is neutral to alkaline, try amending a special potato bed with well-rotted sawdust. Potatoes can be grown in rows, beds, or hills, and spacing strongly influences tuber size. To grow little two-bite new potatoes, space plants 12 inches apart. Allow 18 inches for big, full-season potatoes.

## PLANTING BASICS

**Getting Started** Set seed (parent) potatoes in warm sun about six weeks before your last spring frost. The potatoes should turn green and start to sprout.

**Planting** Plant potatoes two to four weeks before your last frost date.

**Spacing** Allow at least 12 to 14 inches between plants being grown for small new potatoes; space main-crop varieties 18 inches apart. When growing potatoes in bags or containers, use the largest container you can handle consistent with the planting spacing.

**Days to Maturity** Early varieties mature in about 90 days, with main-season potatoes ready in 100 to 110 days, and late varieties maturing about 120 days after planting.

As a survival strategy, potatoes are inclined to produce some of their tubers close to the surface, where sunlight turns them green and bitter, making them unpalatable to predators. To protect shallow tubers from the sun, hill up loose soil around each plant, mulching heavily, or use both methods. Mulching also keeps the root zone cool and moist, just the way potatoes like it.

## PESTS AND DISEASES

Potato leaves often show small holes made by tiny black flea beetles, but the damage is seldom severe. Of more concern are Colorado potato beetles and their leaf-eating larvae, often called potato bugs. Overwintered adult Colorado potato beetles emerge from the soil in mid-spring and walk to find host plants; mulches or perimeter trenches (moats) can impede their progress. Females lay clusters of bright yellow eggs on leaf undersides, then hatch into brick-red, soft-bodied larvae. All life stages of this pest should be attentively hand-picked from medium to small plantings. In larger plantings, spinosad-based insecticides give good control when applied to leaves as soon as the larvae begin to feed.

Prolonged periods of cool rain can lead to outbreaks of late blight, a fungus that quickly destroys plants. Potatoes from infected plants can be harvested and eaten, but none should be left in the ground, where late blight overwinters. To reduce the chance of disease, potatoes—along with close relatives such as peppers and tomatoes—should be planted in a different area of the vegetable garden each year.

## RECOMMENDED VARIETIES

**'Adirondack Red'** Developed at Cornell University and released in 2004, this early-maturing, red-fleshed tuber has a



Flea beetle damage on potato foliage, while unsightly, rarely affects plant health.

uniform, flattened shape and is loaded with extra antioxidants.

**'French Fingerling'** Most fingerlings are descended from 1950-vintage 'Roseval' from France. These main-season potatoes have dense, creamy yellow flesh often streaked with red and are ideal for roasting.



Many potatoes can be harvested early as "new" potatoes while the plant is still green.

## Sources

**Irish Eyes Garden Seeds**, Ellensburg, WA. (509) 933-7150.

[www.irisheyesgardenseeds.com](http://www.irisheyesgardenseeds.com).

**The Maine Potato Lady**, Guilford, ME. (207) 717-5451.

[www.mainepotatolady.com](http://www.mainepotatolady.com).

**Peaceful Valley Farm Supply**, Grass Valley, CA. (888) 784-1722.

[www.groworganic.com](http://www.groworganic.com).

**'Kennebec'** Although it was introduced in 1948, this all-purpose selection from Maine has only recently become a gourmet restaurant favorite for making fries because of its flavorful, firm-textured white flesh; matures in mid-season with thin, tan skin.

**'Red La Soda'** This robust, heat-tolerant cultivar from Louisiana has been around since 1953 and produces an early crop of new potatoes, or you can wait for the mature crop of white-fleshed tubers with red skin that store well.

**'Yukon Gem'** The result of a cross between 'Yukon Gold' and a Scottish variety, this relatively new mid-season selection grows well in a wide range of climates and produces high yields of yellow-fleshed, all-purpose potatoes.

## ENJOYING THE HARVEST

Slightly immature "new" potatoes, harvested while the plants are still green, can be gathered as soon as the plants begin to wither, but potatoes destined for long-term storage should be left in the ground until the plant dies back naturally. After lifting mature potatoes with a garden fork—taking care not to damage the tubers—cure them in a dark room for a few days before storing them in your basement or other cool, dark place. Wait until just before cooking your potatoes to scrub them clean.

Freshly harvested potatoes are tender and cook quickly. Stored all-purpose potatoes can be cooked and served in endless ways, from hash browns to gratins, but reserve fingerlings for potato salad, or try tossing them with salt and olive oil and roasting them whole.

*Barbara Pleasant is a freelance garden writer living in Floyd, Virginia.*

## Protecting Plants from Late Frosts

by Scott Aker

**E**VERY GARDENER knows spring weather can be unpredictable. In many parts of the country, the first warm days can be followed by a cold snap that damages or even kills plants just as they are starting to grow. Fortunately, you can limit the damage by keeping an eye on the weather forecast and having a plan to safeguard frost-tender plants if needed.

### DETERMINING VULNERABILITY

Start by identifying which plants in your garden will need protection. Some elements of your landscape—such as your lawn and large shade trees—cannot be protected or aren't subject to significant damage from late frosts. Plants that favor cool weather—such as pansies, hellebores, and cabbages—can usually withstand frost with no ill effects because they are adapted to growing in cold conditions. Although low temperatures may cause them to wilt drastically, they generally plump up again a few hours after the weather warms. Bulbs that flower in spring are seldom damaged by frost unless they are already in bloom.

However, perennials and shrubs that are marginally hardy in your area are likely to suffer, particularly if a cold spell is preceded by a period of warm weather that encourages plants to break winter dormancy. Plants that have begun active growth are pumped up with water, making them much more vulnerable to frost than plants that are still dormant.

If you grow fruit trees, late frosts can eliminate the year's crop if the trees are in bloom, so it is worthwhile protecting them, as well as any warm-weather annual flowers and vegetables that have already been planted.

### HOW FROST CAUSES PLANT DAMAGE

Before we determine how to protect tender plants from frost, let's look at how very low temperatures cause damage. When



Many established plants will come through a light spring frost with minimal damage.

water freezes, it forms ice crystals that can puncture cell membranes, allowing the contents to leak out. Just after thawing out, the leaves may look water-soaked for this reason. Browning and drying occurs as the water evaporates. Sudden drops in temperature make for larger, more damaging ice crystals; gradual cooling to the freezing point may therefore cause less damage in some instances.

How quickly plants thaw is as important as how they freeze. Some are not damaged by the frost but rather by a rapid increase in temperature when the sun shines directly on them. That's why it is best to site tender plants where they are not exposed to morning sun.

Many tropical plants don't have to be frozen to sustain damage. For instance, if

you place a banana in a refrigerator, the skin will turn brown within a matter of hours, even though its temperature remains above freezing. The discoloration is due to changes in the structure of the cell membranes that causes them to lose their integrity. So it's best to delay placing tropical plants outdoors until nighttime temperatures remain consistently above 55 degrees Fahrenheit. If you've planted containers with tender plants, you can move them into a garage or shed for the night to protect them.

### FROST-PROTECTION STRATEGIES

The tactics used to deal with late frosts can be divided into three main methods—preventing heat loss, creating turbulence, and encouraging ice formation.

Preventing heat loss is easily achieved by placing old blankets, sheets of plastic, row covers, or even large cardboard boxes over tender plants to retain warmth from the ground. Frost is most prevalent on calm nights, so you might not even need to anchor the coverings with stones or bricks. If you use clear or black plastic sheeting, be sure to remove it within a few hours of sunrise to prevent overheating. In the vegetable garden, straw mulch can be gently piled over tender plants and removed when the weather has warmed.

If you have plenty of advance warning, you can also water plants thoroughly prior to a cold snap. Moist soil is a much better reservoir for heat than dry soil, and the increased humidity near the ground will also raise the dew point, causing the air to cool more slowly than if the soil were dry.

Creating turbulence is a defense based on the fact that warm air near the ground dissipates most rapidly in calm weather. Even a slight bit of movement mixes the air enough to prevent frost damage. This is not the most practical means of fending off frost for most gardeners, but if you have a sizable orchard,



Ice actually protects plants during its formation, because heat is released when water begins to freeze.

## Gardening Q&A with Scott Aker

### REMOVING DEAD GROWTH FROM MONDO GRASS

**After a relatively harsh winter, the leaves of my dwarf mondo grass are mostly brown and tan, but now I'm starting to see some new growth. Should I cut the old leaves back to the ground?**

Dwarf mondo grass (*Ophiopogon japonicus* 'Nana'), also called monkey grass, is a grasslike perennial in the lily family. Often grown as a groundcover, the slow-spreading plant has evergreen foliage that can become ragged and unattractive in winter. Instead of cutting the old foliage, try gently pulling or raking it out. Completely dead leaves will detach easily. If you get most of them out, new growth will rapidly cover the remnants of dead leaves and your mondo grass will look good by the end of the season.

### WEED SEEDLING IDENTIFICATION

**I planted a wildflower seed mix in a meadow area of my garden. Sprouts are coming up, but I don't know if they are from the seeds I planted or weeds. Is there a resource or library of images of seedlings that I can use to determine which are weeds?**

There's no single reference that will help you with this, although a new book called *Weeds of North America* by Richard Dickinson and France Royer (University of Chicago Press, 2014) is a pretty good resource. If you end up using a wildflower mixture again, one trick is to simultaneously sow some of the wildflower seeds in a large container, making sure to include some of each kind of seed in the mix. Once these seeds germinate, you can compare them with the seedlings in your garden and weed out any that don't match. (When selecting a wildflower mix, be sure to avoid any that contain species that may be invasive in your region. Federal and state noxious weeds lists can be found at the USDA Plants Database website at [plants.usda.gov](http://plants.usda.gov).) —S.A.

Send your gardening questions to Scott Aker at [saker@ahs.org](mailto:saker@ahs.org) (please include your city and state with submissions).

you might consider installing fans, since they are also useful in promoting rapid drying of rain and dew that create a favorable environment for diseases.

Ice formation is the most counterintuitive method of protecting plants from frost. When water turns to ice, a small amount of heat is released. If a continuous spray of water is utilized, freezing of the plant parts covered in ice is impossible, because water is always freezing on the surface. You can use a sprinkler strategically aimed at a fruit tree in bloom, which is often how commercial orchards protect citrus crops threatened by frost. There are a couple of down sides to this method: one is the weight of the ice, which may cause limbs to break; the second is the waste of water, since you must have the sprinkler on for the whole time the air temperature is below freezing—

often the period just a few hours before dawn to just after sunrise.

Serious hobby orchardists often rig mist nozzles onto each tree to minimize the amount of water needed to protect them. The mist can also be turned on during warm weather in late winter and early spring to cool the trees and delay the development of flower buds to help them avoid frost later. Some gardeners use their automated irrigation system and turn it on manually for the hours that ice formation is needed.

If, despite all your efforts, there is some freeze damage this spring, don't despair. It's still early in the season. Plants will have time to recover, and, if they don't, you'll have time to replant. ❧

*Scott Aker is a horticulturist in the Washington, D.C., area.*

## Wave Hill Celebrates 50th Anniversary

by Mary S. Chaddock



**P**ERCHED ABOVE the Hudson River in the Bronx, New York, Wave Hill's 28 acres of resplendent gardens are enhanced by the spectacular views of the Palisades across the river in New Jersey. This horticultural gem attracts thousands of visitors annually, and this year even more are expected to join in the celebrations for Wave Hill's 50th anniversary.

### ADMIRING THE VIEW

The original property owners built Wave Hill House in 1843. In 1903, the house and grounds became part of an estate created by George W. Perkins, partner to financial magnate J.P. Morgan. One enhancement created during the Perkins years is the **Pergola Overlook**, advantageously positioned to facilitate admi-

ration of the sweeping vistas of the Palisades, an extended section of steep cliffs rising up to 500 feet above the Hudson that is designated a National Natural Landmark. The estate remained with the Perkins family until it was deeded to New York City in 1960.

In 1965, the nonprofit Wave Hill was established to manage the property, so it is from this date that its 50th anniversary is calculated. The organization today continues to fulfill its mission: to preserve the gardens and landscape for public enjoyment and use education and the arts to explore the connections between people and nature.

### RICH HORTICULTURAL HERITAGE

One of the best spots to get "a sense of Wave Hill, its place in the region, and on the river," says President and Execu-

tive Director Claudia Bonn, is the **Kerlin Overlook**, added after 1960 to one of the highest elevations in the garden. "It has one of the most iconic views of the region," she adds.

Several traditional and unusual gardens complement Wave Hill's dramatic scenery. These include the **Flower Garden**, an enclosed symmetrical arrangement of rectangular beds planted as a mixed border, which blooms rambunctiously in spring and summer. In contrast, the formal **Rossbach Monocot Garden** is devoted to a specific plant subset, known as monocotyledons, such as perennial grasses, irises, palms, and bananas.

Wave Hill also makes use of previous structures and the topography of the site. For example, the **Herb Garden** and the **Dry Garden** thrive in the stone founda-

Covered with hardy kiwi vine (*Actinidia arguta*), the Pergola Overlook provides a picturesque place to stop and take in river views.

## Additional Information

**Wave Hill**, West 249th Street & Independence Avenue, Bronx, NY 10471.  
(718) 549-3200. [www.wavehill.org](http://www.wavehill.org).

- Open Tuesday through Sunday year round. Closed Mondays, New Year's Day, Thanksgiving, and Christmas. Hours vary seasonally, check website for details.
- Admission: Adults \$8, Students and Seniors (65+) \$4, Children (6+) \$2, Children (under 6) free.
- Parking: \$8 per vehicle on site; free off-site parking with complimentary shuttle.

Wave Hill participates in the American Horticultural Society Reciprocal Admissions Program. AHS members showing a current AHS membership card receive free admission if they live more than 90 miles from Wave Hill, based on their AHS membership home address.

Other nearby sites to explore:

**Bronx Zoo**, Bronx, NY. [www.bronxzo.com](http://www.bronxzo.com).

**The Cloisters**, New York, NY. [www.metmuseum.org/visit/visit-the-cloisters](http://www.metmuseum.org/visit/visit-the-cloisters).

**New York Botanical Garden**, Bronx, NY. [www.nybg.org](http://www.nybg.org).



Lilacs and other blooming shrubs highlight this view of Wave Hill House in spring.


tions of old greenhouses and the **Elliptical Garden** featuring native plants is on the site of an old swimming pool. Taking advantage of the property's downhill slope, a ramble towards the Hudson River in late March and early April leads visitors past a river of blue glory-of-the-snow (*Chionodoxa sardensis*) under the still-dormant oak trees.

## ARTS AND EDUCATION

Wave Hill prides itself on bringing "horticulture and art together in a very unique way," says Bonn. One way it does this is through concert series and art exhibits inspired by the garden itself. This spring, a special art installation commissioned in honor of the 50th anniversary will keep Wave Hill open in the evening for the first time in its history from April 24 through May 24. Artist Chris Doyle's interdisciplinary work, "The Lightening: a Project for Wave Hill's Aquatic Garden," weaves together light, music, and animation in a display suspended just above the surface of the garden pool.

A vibrant education program is also at Wave Hill's core. Bonn estimates about 7,500 school children a year come for educational events. Each year, 25 pre-college-aged students participate in the Forest Project, the oldest urban forest program for underserved communities in the country. Numerous classes and workshops are offered to the general public, including the innovative Family Art Project, which encourages children and their families or caregivers to create their own nature-inspired works of art.

## TRANQUIL SANCTUARY

Despite the many ongoing programs and throngs of visitors, Wave Hill is still "personal and intimate," says Bonn. "In many respects, it is a sanctuary for people." Part of that feeling is due to the care taken to maintain the personal scale of the garden, opines Louis Bauer, Director of Horticulture, noting that, "it was a private landscape and when people visit, they still experience it as a private landscape." Anyone seeking a respite from the hustle and bustle of modern life will find the perfect rejuvenating retreat here. 

*Mary S. Chadduck is an editorial intern for The American Gardener.*

## Recommendations for Your Gardening Library

### Smithsonian Encyclopedia of Garden Plants for Every Location

Edited by James Gagliardi. Dorling-Kindersley, New York, New York, 2014. 400 pages. Publisher's price, hardcover: \$40.

WANDERING THROUGH the garden with a plant in one hand and trowel in the other, seeking just the right place for the newcomer, is an age-old tradition. This new tome will help gardeners take a more direct route in their wanderings. Photographs of plants, arranged about 10 per page and accompanied by brief descriptions, are presented in spreads on some 66 different types of sites, locations, and/or uses.

The first part of the book, "Plant Locations," is divided into sections on sun and shade. These are further organized to present plants for clay soil, sand, pond perimeters, rock gardens, urban gardens, patio food gardens, and more.

The second part, "Plants for Special Effects," presents plants for different garden styles, including cottage gardens and Asian-inspired gardens. The remaining spreads highlight useful plant features—summer flowers, ornamental fruit, color palette, fragrance, dramatic texture, and unique form. Finally, "Plants for Garden Problems" includes suggestions for sun-baked areas, waterlogged sites, slopes, and plants that repel slugs, rabbits, and deer.

Throughout, individual plant descriptions are quite specific because they are based on the particular photograph. Also, there is relatively little text about each plant, although symbols help augment the amount of information provided. But don't let the specificity limit your choices. Instead, let a photo of 'Sunset Celebration' rose or 'Bishop of Llandaff' dahlia represent a range of selections instead of just the specific plant pictured. One caveat, however, is that while the book features many American natives and adaptable exotic plants, it also includes species—such as heaths, heathers, and hebes—that are difficult to grow in many North American locales.

In my view, the value of a volume like this one lies more in the possibilities it suggests. From there, you can do more research before you decide a particular recommendation is worth a try. With that in mind, you may find that next time you are wandering around looking for a spot to slip in one more plant, this book might send your trowel in an entirely new direction.

—Barbara W. Ellis

*Barbara W. Ellis is the author of many gardening books, the most recent of which is Chesapeake Gardening & Landscaping: The Essential Green Guide (University of North Carolina Press, 2015).*

### Epic Tomatoes

Craig LeHoullier. Storey Publishing, North Adams, Massachusetts, 2014. 250 pages. Publisher's price, softcover: \$19.95.

CRAIG LEHOULLIER is a man obsessed when it comes to tomatoes. It all started when he joined the Seed Savers Exchange (SSE) in 1986, switching from nursery purchased transplants to raising his own plants. This book is a tribute, in many ways, to those who have been saving seeds and sharing family heirlooms over the past century, giving tomatoes a place they deserve in the top ranks of America's vegetable gardens.

Yet it has not always been this way. Had you been a gardener or a foodie in the early 18th and 19th century, when the tomato was first introduced as an edible fruit, you might have shunned them as poisonous. The plants were exotic and rangy, and not everyone appreciated the herbaceous scent and bulbous ornamental fruit. "The first time I saw a tomato, they appeared so disgusting that I thought I must be very hungry before I am induced to taste them," wrote a New England gardener in 1820.

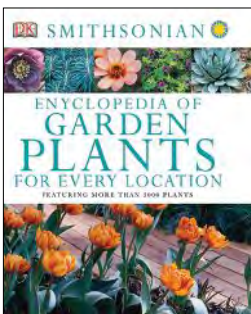
A former chemist, LeHoullier immersed himself in tomatoes, growing more than 2,000 plants in the past three decades. His garden became a laboratory for his own experiments, a self-described "museum of living history" that filled hundreds of pots on his driveway and deck. His scientific approach to carefully recording shape, color, flavor, and leaf variations resulted in a book that covers everything from the history and growing specifics, to the top 10 favorites and the relationship between tomatoes, color, and flavor.

Detailed chapters on soil and getting the right pH, caging techniques and spacing, mulching, and even growing in straw bales are documented with excellent color photographs. Sections on how to prune, clip suckers (or not), best methods for support, and seed saving tips flow together beautifully.

All the descriptions and growing information, enhanced by the book's snappy cover art, engaging design, and clever interior layout, make it easy to see how anyone could be smitten by this remarkable and quirky fruit. This book would be ideal for anyone who already loves tomatoes, but also highly recommended for those who have narrowed down their tomato growing to just a few favorites.

—Ellen Ecker Ogden

*Ellen Ecker Ogden is the author of The Complete Kitchen Garden (Stewart, Tabori and Chang, 2011) featuring theme designs and recipes for cooks who garden. Find her on [www.ellenogden.com](http://www.ellenogden.com).*





**Visions of Loveliness: Great Flower Breeders of the Past**  
 Judith M. Taylor. Swallow Press, Athens, Ohio, 2014. 424 pages.  
 Publisher's price, softcover: \$29.95.

MANY GARDENERS ENJOY the floral products of plant breeding, such as *Narcissus* 'King Alfred' or the old-fashioned Dorothy Perkins rose, without giving a thought to their origins. In *Visions of Loveliness*, Judith M. Taylor brings to life the "creators" of these ornamental plants and many others in a way that will give you new appreciation for flowers of all kinds.



The book begins with a brief overview of the history of botany and plant hybridization. Taylor sets the stage for her narrative by explaining that humans have long sought to improve the plants that they enjoyed for sustenance of body and spirit.

As time passed, flowers became as important a focus for improvement as edibles. Driven by "visions of loveliness," the heroes and heroines of Taylor's book altered ornamental characteristics such as form, size, color, disease resistance, hardiness, and vigor to yield dazzling new varieties.

Plant breeders from Europe and the United States are the focus of the book's next section, but Taylor's meticulous research touches on those in China, India, Central America, and New Zealand as well. The scientific acumen of the breeders is not her only interest. She humanizes each of her subjects by providing insights into their personalities and lives beyond their breeding work. Who knew that French breeder Victor Lemoine—whose "monumental achievements sparked the creation of this book," explains Taylor—was a civic-minded man involved with urban beautification efforts in his town? Or that members of the Hemus family in Worcestershire, England, became estranged due to resentments over prizes for their champion sweet peas?

The final part of the book describes the breeding efforts of many people, both professional and amateur, within 16 genera. I especially enjoyed reading about efforts to improve the azalea, the magnolia, and the lily. And Taylor's discussion of the marigold's (*Tagetes* spp.) intriguing medicinal, religious, and ornamental history will surely inspire a new respect for this often-maligned, ubiquitous plant. For example, she notes that the Aztecs used a powdered form of *Tagetes lucida* to dull a victim's senses before a ritualistic sacrifice. Today, marigold petals are routinely added to commercial chicken feed to enrich the color of egg yolks.

Though the book is packed with detailed information, I wanted to know even more. I hope that others will be motivated by Taylor's fine example to examine the breeding history of more ornamental genera with similar fascinating results.

—Denise Wiles Adams

*Denise Wiles Adams is the author, with Laura L. S. Burchfield, of American Home Landscapes: A Design Guide to Creating Period Garden Styles (Timber Press, 2013). Adams lives in Stony Point, New York.*



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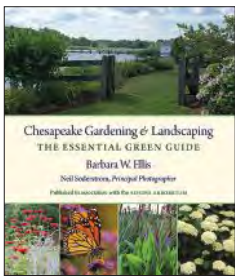
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## Regional Gardening Guides

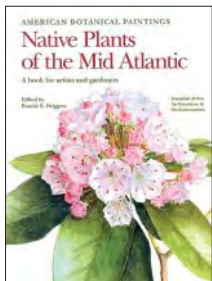
PLANTS FROM tropical areas will not survive outdoors in temperate climates and vice versa. But gardeners are an optimistic bunch—what else explains why I keep planting heat-loving gardenias in my Virginia garden only to see them turn into bare, lifeless sticks thanks to our frigid winters? However we may want to deny it, all gardening is local; what works in one place will not necessarily work in another. These recently published, regionally focused books will help you achieve a thriving garden wherever you live.



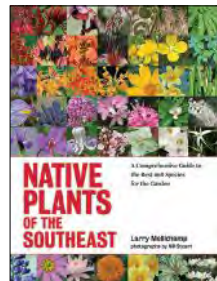
***The Shady Lady's Guide to Northeast Shade Gardening*** (University Press of New England, 2014, \$27.95) by Amy Ziffer aims to help gardeners take advantage of not-so-sunny spots. A gallery of reliable perennials paired with close-up photographs forms the heart of the book. Ziffer defines the categories of shade, then divides listed plants into those that do well in deep shade and those that prefer lighter shade. More lists in the appendices group plants by use and zone.



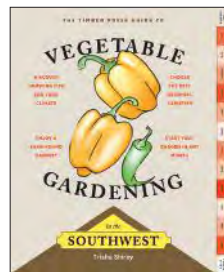
In ***Chesapeake Gardening & Landscaping*** (University of North Carolina Press, 2015, \$40), Barbara W. Ellis addresses the important role sustainably designed and maintained gardens play in protecting the ecology of the Chesapeake Bay watershed. She offers helpful advice on assessing, designing, planting, and maintaining earth friendly landscapes, followed by detailed descriptions of recommended plants for different site conditions.



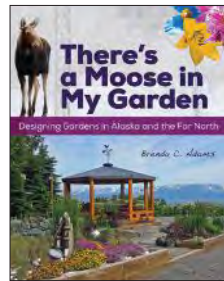
***American Botanical Paintings: Native Plants of the Mid Atlantic*** (Lydia Inglett Ltd Publishing, 2014, \$39.95), edited by Bonnie S. Driggers, is an artistic exploration of mid-Atlantic plants. Each of the 60 plants profiled is shown in a beautiful botanical painting or drawing and accompanied by a description that includes habitat, native food-web associations, and historical use of the plant. Some of the illustrations include charming studies of pollinators and caterpillars associated with the plant.



***Native Plants of the Southeast*** (Timber Press, 2014, \$39.95) by Larry Mellichamp is for anyone interested in plants native to the southeastern United States. Mellichamp provides detailed and refreshingly frank descriptions of 460 plants, accompanied by lush photographs. He also ranks each plant using a four-star system to help readers determine which ones will best meet their garden's needs.



Those contending with the temperature extremes and aridity of the American Southwest will want to check out Trisha Shirey's ***The Timber Press Guide to Vegetable Gardening in the Southwest*** (\$19.95), just released this year. It includes a month-by-month, user-friendly schedule outlining garden tasks and cultural notes, along with planting and harvesting charts. Northeast, Southeast, Intermountain West, and Pacific Northwest versions of this book, each written by a different regional expert, were released in 2013.



***There's a Moose in My Garden*** (University of Alaska Press, 2013, \$35) guides the reader, gently and with humor, through the process of designing a spectacular garden in Alaska and the far north. Author Brenda C. Adams's enthusiasm is infectious as she coaches readers through plant selection and site evaluation to ensure success in this challenging environment. And yes, she has actually had a moose in her garden.

—Mary S. Chadduck, Editorial Intern

## Horticultural News and Research Important to American Gardeners

### TOP PERENNIAL PLANT FOR 2015

Each year, the Perennial Plant Association, based in Columbus, Ohio, asks its members to vote on their favorite perennials, based on the plants' suitability for a range of regions, low maintenance requirements, and multiple seasons of garden interest. This year's Perennial Plant of the Year is *Geranium*  $\times$  *cantabrigiense* 'Biokovo'



*Geranium*  $\times$  *cantabrigiense* 'Biokovo'

(USDA Hardiness Zones 4–8, AHS Heat Zones 8–4). Originally discovered growing in the Biokovo mountains in Croatia, this cranesbill cultivar produces clouds of three-quarter-inch, pale pink flowers from late spring through summer. The foliage turns scarlet and orange in the fall.

'Biokovo' does well in most soil types in full sun to part shade. It may be semi-evergreen in milder climates, but old leaves should be trimmed in early spring to keep it looking tidy and stimulate new growth. It will reach six to 10 inches tall, making it a good choice for the front of a border or in a rock garden. It slowly spreads by shallow-rooted runners, which are easy to pull up to keep the plant contained. Given room, it can spread up to three feet in diameter over a two- to three-year period.

For more information about 'Biokovo', visit [www.perennialplant.org](http://www.perennialplant.org).

### BREAKTHROUGH IN FIGHT TO SAVE NATIVE HEMLOCKS FROM INSECT PEST

University of Georgia (UGA) researchers at the Daniel B. Warnell School of Forestry and Natural Resources in Athens have developed a technique for preserving tree germplasm that may prove essential to the long-term survival of hemlocks (*Tsuga* spp.) native to the eastern United States.

The researchers, led by Scott Merkle, UGA associate dean of research, are in race to save the Carolina hemlock (*T. caroliniana*) and the eastern hemlock (*T. canadensis*), the only two hemlock species native to North America, from being wiped out by an insect known as the hemlock woolly

adelgid (*Adelges tsugae*). Accidentally introduced from Asia in the 1950s, this pest has spread rapidly throughout the Appalachian region. "It looks like a bomb went off where there were once pure hemlock stands," says Merkle. "It's just dead trees because there doesn't seem to be much natural resistance."

Now, the UGA researchers have found a way to cryogenically preserve tissue culture samples of hemlock, and then later grow hemlocks from the defrosted tissue. Cryogenic preservation will allow scientists to successfully store the hemlock germplasm for decades so that if hemlocks are eventually exterminated in the wild, the species can be regenerated.



**Top:** A stand of native hemlocks, center, has succumbed to attack by woolly adelgid in North Carolina's Great Smoky Mountains. To prevent the extinction of these native trees, University of Georgia scientists have been able to generate hemlock embryos, above left, from frozen tissue and grow them into new plants, above right.



*Phacelia gina-glennae* is named for its discoverer, Gina Glenne.

### NEW NATIVE PLANT DISCOVERED

It's official! Recent genetic testing confirms that an unassuming plant called *Phacelia gina-glennae* is a distinct species.

This diminutive annual, which measures only five inches tall by four inches wide, was found in a preserve in Grand County, Colorado, in 2009. Gina Glenne, the U.S. Fish & Wildlife Service botanist who first spotted it, has been recognized in the plant's specific epithet and with the plant's unofficial common name, Gina's phacelia. Duane Atwood, then botanist for Brigham Young University in Salt Lake City, Utah, pronounced it a new species in 2013, and his ruling has now been backed up by DNA comparisons. While scientists still have a lot to learn about this new species, Glenne has observed that the plant's purple flowers, each measuring less than one-eighth of an inch across, attract pollinators of all kinds.

### ONLINE RESOURCE FOR ACCESSIBLE GARDENING

According to the new website, [www.accessiblegardens.com](http://www.accessiblegardens.com), an accessible garden is one that is "designed to provide access to gardening activities or simply provide a garden experience for persons of all ages and abilities allowing full participation in the pleasurable activity of growing plants." To empower all people to garden, this non-commercial online resource offers a wide range of information including photographs, building plans,

garden designs, and videos to showcase successful gardeners. There are also links to seed catalogs, private agencies, and government agencies that can provide appropriate resources. The website is an outreach project of Ophoenix, a public benefit corporation in San Francisco, California, whose mission is, "Helping ordinary people deal with extraordinary medical challenges."

### INVENTORS HONOR PLANT BREEDER

Legendary woody plant expert Michael A. Dirr, professor emeritus of horticulture at the University of Georgia in Athens, has



Michael A. Dirr

become the first ornamental plant breeder named a National Academy of Inventors (NAI) Fellow. This distinction from the NAI is conferred upon "academic inventors who have demonstrated a highly prolific spirit of innovation in creating or facilitating outstanding inventions that have made a tangible impact on quality of life, economic development, and the welfare of society."

Fellows are nominated by their peers and must be named on at least one patent. Indeed, Dirr is named as inventor on more than 30 plant patents. Dirr's

seminal plant breeding work includes developing reblooming and cold hardy hydrangeas to extend their season of bloom and range in which they may be cultivated. He has also been instrumental in the improvement of crape myrtles, viburnums, and distyliums, among others. He continues to develop new plants through the company he co-founded in 2007, Plant Introductions, Inc., which was recently acquired by Bailey Nurseries of Minnesota.

### SCOTT MEDAL WINNER: KRIS JARANTOSKI

Kris Jarantoski, executive vice president and director of the Chicago Botanic Garden (CBG), recently received the prestigious Arthur Hoyt Scott Medal and Award from the Scott Arboretum of Swarthmore College in Pennsylvania. Established in 1929, this honor recognizes



Scott Medal and Award winner Kris Jarantoski

es individuals who have made outstanding national contributions to gardening.

Jarantoski joined the CBG in 1977 and since then has received several awards, including Honorary Life Member from the American Public Gardens Association in 2014, the Distinguished Service Medal from the Garden Club of America in 2011, and the Professional Award from the American Horticultural Society in 2007. He has also served in leadership positions for the American Public Gardens Association and the Garden Conservancy.

Sophia Shaw, CBG president and chief operating officer, says that Jarantoski has been a "driving force in the Chicago Botanic Garden's evolution and can be credited with playing a leadership role in its success." To learn more about the Scott Medal and Award, visit [www.scottarboretum.org/programs/scottmedal.html](http://www.scottarboretum.org/programs/scottmedal.html).



After more than six decades at its current seven-acre headquarters, above, *Sunset* magazine will move to a new location at the end of this year.

### LEADERSHIP CHANGE AT LEWIS GINTER

After 23 years at the Lewis Ginter Botanical Garden in Richmond, Virginia, Frank Robinson retires at the end of March as its president and CEO. Prior to his appointment at Lewis Ginter, Robinson was the executive director of the American Horticultural Society for several years. Moving into the garden's top leadership position is Shane Tippett, who has served as assistant executive director at Lewis Ginter for 10 years and became its executive director in January.

### SUN SETS ON SUNSET HEADQUARTERS

*Sunset* magazine's seven-acre headquarters in Menlo Park, California, has been sold to a San Francisco-based real estate management firm. Home to the magazine since 1951, the property comprises an iconic California ranch house designed by Cliff May—considered the “father” of the architectural style—and extensive gardens originally designed by Thomas Church. *Sunset*'s offices will remain on the property through the end of 2015 while the company seeks its next headquarters.

This arrangement will allow the gardens to remain open to the public in the meantime. The magazine also will hold its popular annual *Sunset* Celebration Weekend for the final time at its Menlo Park location this June. The property's new owner has indicated a desire to preserve the culturally significant campus as much as possible.

*News written by Editorial Intern Mary S. Chadduck with Associate Editor Viveka Neveln.*



## Colonial Williamsburg — 69th GARDEN SYMPOSIUM —

### LAYERS OF THE LIVING LANDSCAPE

APRIL 10–12, 2015

Planting in layers allows gardeners to take full advantage of their space and include a diversity of plants that provide beauty and benefit wildlife. This program includes presentations by Rick Darke and Douglas W. Tallamy, authors of *The Living Landscape*, and two of the most important voices in sustainability and horticulture.

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# Feeding Your Garden with Natural Fertilizers

by Rita Pelczar



**S**IXTEEN NUTRIENTS have been identified as essential for plant growth. Carbon, hydrogen, and oxygen are obtained from air and water. The remaining nutrients often exist in soil, but they may be in insufficient quantities or forms to support healthy plant growth. A good place to start when determining your fertilizer needs is with a soil test. The results will show what nutrients are abundant or lacking, and indicate your soil pH, which has a profound effect on the availability of nutrients to plants. (For more about soil testing, see “SmartGarden—Testing Your Soil” linked to this article on the AHS website at [www.ahs.org](http://www.ahs.org).)

Fertilizers can be derived from natural sources or they can be synthesized in factories. Synthetic fertilizers are generally less expensive and their nutrients

are more readily available to plants than those in natural fertilizers. While this can give plants a quick boost, too much can burn plants. Synthetic fertilizers are more subject to leaching into and polluting groundwater and rivers. Their repeated use can lead to an accumulation of salts that can damage plants and kill beneficial soil organisms.

Natural fertilizers contribute to the nutritional needs of plants and soil that is alive with beneficial organisms. Natural fertilizers include those of organic origin such as manure and plant byproducts, and materials that are mined, ground, and refined from mineral deposits. Nutrients exist in a variety of forms, and in most natural fertilizers must be transformed by soil organisms into soluble forms that can be absorbed by plants. This transfor-

mation is typically gradual, so nutrients become available to plants over an extended period, minimizing their loss by leaching or volatilization.

## COMPOST AND MANURE

Compost and manure are excellent soil amendments, but they vary considerably in their nutrient content. Compost tea, made by steeping compost in water, adds both nutrients and beneficial microbes to garden soil.

Commercially produced manures are typically sold in dried form. One I use is **Harmony™ Organic Fertilizer**, which is dried composted poultry manure, with an analysis of 5-4-3 (nitrogen-phosphate-potash). It also contains several secondary and micronutrients.

Dried horse or cow manure from **Authentic Haven Brand** comes in small cloth bags for steeping in one to five gallons of water to make a tea.

## PLANT AND ANIMAL BYPRODUCTS

Plant byproducts such as soybean meal, alfalfa meal, and cottonseed meal contain a broad range of nutrients that are released over one to four months. Keep in mind that cottonseed meal may contain pesticide residues unless it is labeled pesticide-free. Corn gluten meal is a good source of nitrogen, and it discourages the germination of annual weeds, but don't use it where you plan to plant seeds within three or four months.

Animal byproducts include blood meal, which at 12 percent nitrogen, represents one of the highest sources of nitrogen among natural fertilizers. I use porcine blood meal on my hops to support their rapid growth in spring and early summer. Feather meal and fish-meal are also high in nitrogen.

Bone meal is an excellent source of phosphorus and calcium. It also adds

The author's husband applies blood meal to a row of hops to promote rapid growth in spring.

## FERTILIZER TERMINOLOGY

**Macronutrients** Nutrients used in the largest quantities by plants: nitrogen (N), phosphorus (P), and potassium (K).

**Secondary nutrients** Nutrients used in smaller amounts than macronutrients; these include calcium (Ca), magnesium (Mg), and sulfur (S).

**Micronutrients** Nutrients required in very small amounts by plants include boron (B), chlorine (Cl), copper (Cu), iron (Fe), manganese (Mn), molybdenum (Mo), and zinc (Zn).

**Fertilizer** A soil amendment that guarantees minimum percentages of nutrients (at least N-P-K).

**Natural fertilizer** One derived from nature, either a once-living source or a rock or mineral powder.

**Organic fertilizer** One derived from a once-living source, although some define it as any fertilizer that contains carbon.

**Inorganic fertilizers** Include natural materials that are mined, ground, and refined from mineral deposits as well as those that are synthesized from chemicals.

**Synthetic (chemical) fertilizer** These are derived wholly or partially from inorganic material of synthetic origin.

**Complete fertilizer** These contain all three macronutrients, and may also include micronutrients.

—R.P.

## Sources

Many of the products in this article are also available at local garden centers.

**Arbico Organics**, Oro Valley, AZ.

[www.arbico-organics.com](http://www.arbico-organics.com).

**Authentic Haven Brand**,  
San Juan Capistrano, CA.

[www.manuretea.com](http://www.manuretea.com).

**Espoma**, Millville, NJ.

[www.espoma.com](http://www.espoma.com).

**Harmony Organics**, Blacksburg, VA.

[www.harmonyorganics.net](http://www.harmonyorganics.net).

**Neptune's Harvest**, Gloucester, MA.

[www.neptunesharvest.com](http://www.neptunesharvest.com).

**Peaceful Valley Farm & Garden**

**Supply**, Grass Valley, CA.

[www.groworganic.com](http://www.groworganic.com).

**Planet Natural**, Bozeman, MT.

[www.planetnatural.com](http://www.planetnatural.com).

some nitrogen, although specific analysis varies with the source. The analysis of Espoma's **Organic Bone Meal**, which contains no fillers, is 4-12-0.

Liquid fish fertilizers are usually concentrated for mixing with water. One drawback to them is their fishy smell.

**Gro-tone™** from Espoma has overcome the fishiness by adding a pleasant mint scent, so it's a good choice for indoor plants. Derived from the processed wastes of farmed catfish, its analysis is 2-2-2.

**Neptune's Harvest Fish Fertilizer** uses a process called hydrolysis to break down fish byproducts from the North Atlantic into a stable liquid fertilizer with an analysis of 2-4-1; a good portion

of the nutrients are readily available to plants. I've observed a rapid plant response when I've applied it as a foliar spray, but it is also effective watered into the root zone. Both Gro-tone and Neptune's Harvest can be applied through drip irrigation systems.



## SEAWEED PRODUCTS

Seaweed, primarily kelp, is a good source of micronutrients and naturally occurring plant hormones. Kelp also helps support beneficial microbes in the soil. Kelp meal can be added directly to the soil or mixed into compost to boost its nutritional value.

Kelp is also available as a concentrated powder or liquid to mix with cold water.

**Maxicrop Soluble Powder** (1-0-4) is made from Norwegian kelp and is recommended for both

indoor and outdoor plants. Peaceful Valley's **Organic Liquid Kelp** is an enzymatically digested, concentrated liquid extract of kelp harvested off the northern coast of California. Added natural humic acids help stabilize the extract, which, once diluted, can be watered into the root zone or applied as a foliar spray.

Kelp is often combined with fish byproducts to create a micronutrient-rich, complete fertilizer. For my vegetable and flower gardens, I like **Drammatic® "K"**, with an analysis of 2-5-0.2.

## ROCKS AND MINERAL POWDERS

Certain rock deposits contain minerals

that can be ground into fertilizers. The phosphorus content of a fertilizer is expressed as the percentage of available phosphate (P<sub>2</sub>O<sub>5</sub>). Colloidal phosphate, also called soft rock phosphate, contains two to three percent available phosphate and is also a good source of calcium. Espoma's **Organic Rock Phosphate** contains three percent available phosphate. For phosphate to break down into a plant-available form, the soil pH should be below 7.0.

The potassium content in fertilizers is expressed as the percent of potash (K<sub>2</sub>O). Sulfate of potash contains slightly less than 50 percent soluble potash, 18 percent sulfur, and trace amounts of calcium and magnesium. Potassium magnesium sulfate, also called langbeinite, contains 18 to 22 percent potash, plus magnesium, and sulfur.

While plants absorb the same nutrients whether they originate from a synthetic or natural fertilizer, chemical fertilizers do nothing to build the structure of soil or to improve its ability to retain nutrients. By supporting beneficial soil organisms, natural fertilizers help improve the structure and maintain the ecological balance of soil, which, in turn, promotes healthy plant growth.

*Rita Pelczar is a contributing editor for The American Gardener.*



## REGIONAL HAPPENINGS

# Horticultural Events from Around the Country

### NORTHEAST

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

**RAP** MAR. 28. **Introduction to Home Orcharding.** Class. Tower Hill Botanic Garden. Boylston, Massachusetts. (508) 869-6111. [www.towerhillbg.org](http://www.towerhillbg.org).

**RAP** MAR. 28. **Pruning with Tressa Gaffney.** Class. The Fells Historic Estate & Gardens. Newbury, New Hampshire. (603) 763-4789. [www.thefells.org](http://www.thefells.org).

**RAP** MAR. 31. **Gardening with Mosses.** Lecture. Merryspring Nature Center. Camden, Maine. (207) 236-2239. [www.merryspring.org](http://www.merryspring.org).

APR. 8. **The Art of Growing Food.** Lecture. Garden Education Center of Greenwich. Cos Cob, Connecticut. (203) 869-9242. [www.gecgreenwich.org](http://www.gecgreenwich.org).

**RAP** APR. 11. **Naming Flora: An Etymological Romp.** Lecture. Berkshire Botanical Garden. Stockbridge, Massachusetts. (413) 298-3926. [www.berkshirebotanical.org](http://www.berkshirebotanical.org).

**RAP** APR. 16–18. **Ecological Landscape Design.** Class. Coastal Maine Botanical Gardens. Boothbay, Maine. (207) 633-4333. [www.mainegardens.org](http://www.mainegardens.org).

APR. 16. **Garden Design and Plant Selection by Habitat: Making the Most of Your Site.** Class. The Connecticut Horticultural Society. Rocky Hill, Connecticut. (860) 529-8713. [www.cthort.org](http://www.cthort.org).

**RAP** APR. 24. **Beginning Bonsai Workshop.** Buffalo and Erie County Botanical Gardens. Buffalo, New York. (716) 827-1584. [www.buffalogardens.com](http://www.buffalogardens.com).


**RAP** APR. 25 & 26. **Sakura Matsuri.** Festival. Brooklyn Botanic Garden. Brooklyn, New York. (718) 623-7200. [www.bbg.org](http://www.bbg.org).

#### Looking ahead

**RAP** MAY 8. **Naturalistic Garden Symposium.** Garden in the Woods. New England Wild Flower Society. Framingham, Massachusetts. (508) 877-7630. [www.newfs.org](http://www.newfs.org).

**RAP** MAY 13 & 14. **Soil Science for Gardeners.** Lecture. Coastal Maine Botanical Gardens. Boothbay, Maine. (207) 633-4333. [www.mainegardens.org](http://www.mainegardens.org).

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

Flower and garden shows that offer free or discounted admission to AHS members or present the AHS Environmental Award are designated by a  symbol. For details on the specific benefits offered, visit [www.ahs.org/2015-flower-shows](http://www.ahs.org/2015-flower-shows).

### MID-ATLANTIC

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

**RAP** APR. 3 & 10. **Flora of Virginia.** Lab, field sessions. State Arboretum of Virginia. Boyce, Virginia. (540) 837-1758. [www.blandy.virginia.edu](http://www.blandy.virginia.edu).

**RAP** APR. 11. **Japanese Cherry Blossom Festival.** Morris Arboretum of the University of Pennsylvania. Philadelphia, Pennsylvania. (215) 247-5777. [www.morrisarboretum.org](http://www.morrisarboretum.org).

**RAP** APR. 12. **Design Principles for Sustainable Gardens.** Lecture. Pennsylvania Horticultural Society. Philadelphia, Pennsylvania. (215) 988-8800. [www.phsonline.org](http://www.phsonline.org).

APR. 18. **Garden & Landscape Symposium of Western Pennsylvania.** Shady Side Academy. Pittsburgh, Pennsylvania. (412) 473-2540. [www.extension.psu.edu/garden-landscape-symposium](http://www.extension.psu.edu/garden-landscape-symposium).

**RAP** APR. 18. **Starting Your Permaculture Garden.** Lecture. Norfolk Botanical Garden. Norfolk, Virginia. (757) 441-5830. [www.norfolkbotanicalgarden.org](http://www.norfolkbotanicalgarden.org).

**RAP** APR. 29. **Learning from Great Gardens: A Garden of Many Moods.** Workshop. The Delaware Center for Horticulture. Wilmington, Delaware. (302) 658-6262. [www.thedch.org](http://www.thedch.org).

#### Looking ahead

**RAP** MAY 7–9. **A Step Back in Thyme: Colonial Williamsburg.** Conference. The Herb Society of America. Williamsburg, Virginia. (440) 256-0514. [www.herbsociety.org](http://www.herbsociety.org).

**RAP** MAY 9. **Hanging Baskets.** Workshop. Hillwood Estate, Museum & Gardens. Washington, D.C. (202) 686-5807. [www.hillwoodmuseum.org](http://www.hillwoodmuseum.org).

**RAP** MAY 10. **Successful Container Gardening Workshop.** West Virginia Botanic Garden. Morgantown, West Virginia. (304) 376-2717. [www.wvbg.org](http://www.wvbg.org).

JUNE 3–6. **Native Plants in the Landscape Conference at Millersville.** Millersville University. Millersville, Pennsylvania. (717) 871-2189. [www.millersville-nativeplants.org](http://www.millersville-nativeplants.org).

### SOUTHEAST

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

**RAP** MAR. 28. **Hellebore Day.** Lectures, plant sale. Yew Dell Botanical Gardens. Crestwood, Kentucky. (502) 241-4788. [www.yewdellgardens.org](http://www.yewdellgardens.org).

**RAP** APR. 4. **Spring-Flowering Native Plants.** Lecture. Birmingham Botanical Gardens. Birmingham, Alabama. (205) 414-3950. [www.bbgardens.org](http://www.bbgardens.org).

**RAP** APR. 11 & 12. **Spring Plant Festival.** University of South Florida Botanical Garden. Tampa, Florida. (813) 910-3274. [www.gardens.usf.edu](http://www.gardens.usf.edu).

**RAP** APR. 16. **Bountiful Blooms at Cheekwood.** Lecture. Cheekwood Botanical Garden & Museum of Art. Nashville, Tennessee. (615) 356-8000. [www.cheekwood.org](http://www.cheekwood.org).

**RAP** APR. 18. **Plant Hunting in Northern Vietnam.** Lecture. JC Raulston Arboretum at NC State University. Raleigh, North Carolina. (919) 515-3132. [www.jcra.ncsu.edu](http://www.jcra.ncsu.edu).

**RAP** APR. 28. **Plant Loss Support Group.** Lecture. Boone County Arboretum. Union, Kentucky. (859) 384-4999. [www.bcarboretum.org](http://www.bcarboretum.org).

**RAP** APR. 29. **Miniature Orchids of the Tropics.** Class. Fairchild Tropical Botanic Garden. Coral Gables, Florida. (305) 667-1651. [www.fairchildgarden.org](http://www.fairchildgarden.org).

#### Looking ahead

**RAP** MAY 1. **Rose Care 101.** Lecture. Smith-Gilbert Gardens. Kennesaw, Georgia. (770) 919-0248. [www.smithgilbertgardens.com](http://www.smithgilbertgardens.com).



**RAP** MAY 5. **Vermicomposting Workshop.** State Botanical Garden of Georgia. Athens, Georgia. (706) 542-1244. [www.botgarden.uga.edu](http://www.botgarden.uga.edu).

**RAP** MAY 6. **Creating a Butterfly and Hummingbird Garden.** Lecture. Fairchild Tropical Botanic Garden. Coral Gables, Florida. (305) 667-1651. [www.fairchildgarden.org](http://www.fairchildgarden.org).

#### NORTH CENTRAL

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

**RAP** MAR. 28. **Introduction to Ornamental Gardening.** Lecture. Taltree Arboretum & Gardens. Valparaiso, Indiana. (219) 462-0025. [www.taltree.org](http://www.taltree.org).

APR. 3. **Founding Gardeners: The Revolutionary Generation, Nature, and the Shaping of the American Nation.** Lecture. Lauritzen Gardens. Omaha, Nebraska. (402) 346-4002. ext 261. [www.lauritzengardens.org](http://www.lauritzengardens.org).

**RAP** APR. 4 & 11. **Heritage & Heirloom Apple School.** Workshop. Seed Savers Exchange. Decorah, Iowa. (563) 382-5990. [www.seedsavers.org](http://www.seedsavers.org).

**RAP** APR. 8. **Garden Design with Native Plants.** Discussion. The University of Michigan Matthaei Botanical Gardens and Nichols Arboretum. Ann Arbor, Michigan.

(734) 647-7600. [www.mbgna.umich.edu](http://www.mbgna.umich.edu).

**RAP** APR. 11. **O-H-I-Grow.** Symposium. Franklin Park Conservatory and Botanical Gardens. Columbus, Ohio. (614) 715-8000. [www.fpconservatory.org](http://www.fpconservatory.org).

✿ APR. 15-19. **Cincinnati Flower Show.** Yeatman's Cove Park. Cincinnati, Ohio. (866) 568-5189. [www.cincinnatihorticultural.society.com/cincyflowershow/2015-event](http://www.cincinnatihorticultural.society.com/cincyflowershow/2015-event).

**RAP** APR. 16. **Specialty Gardens.** Lecture. McCrory Gardens. Brookings, South Dakota. (605) 688-6707. [www.mccrorygardens.com](http://www.mccrorygardens.com).

**RAP** APR. 18. **Spring Fever Symposium: Conifers.** Iowa Arboretum. Madrid, Iowa. (515) 795-3216. [www.iowaarboretum.org](http://www.iowaarboretum.org).

**RAP** APR. 22. **Incorporating Fragrance in the Garden.** Lecture. Olbrich Botanical Gardens. Madison, Wisconsin. (608) 246-4550. [www.olbrich.org](http://www.olbrich.org).

**RAP** APR. 27. **Great Plants for Iowa.** Class. Reiman Gardens at Iowa State University. Ames, Iowa. (515) 294-2710. [www.reimangardens.com](http://www.reimangardens.com).

Looking ahead

**RAP** MAY 2. **Can You Dig It?** Symposium.

MSU Horticulture Gardens. East Lansing, Michigan. (517) 355-5191 ext. 1352. [www.hrt.msu.edu/our-gardens](http://www.hrt.msu.edu/our-gardens).

**RAP** MAY 2. **Garden Greats for Central Ohio.** Lecture. The Dawes Arboretum. Newark, Ohio. (740) 323-2355. [www.dawesarb.org](http://www.dawesarb.org).

**RAP** MAY 2. **Spring Garden Festival.** Lectures, workshops, plants. Fernwood Botanical Garden & Nature Preserve. Niles, Michigan. (269) 695-6491. [www.fernwoodbotanical.org](http://www.fernwoodbotanical.org).

**RAP** MAY 3. **Greenhouse Open House.** Cantigny Park & Gardens. Wheaton, Illinois. (630) 668-5161. [www.cantigny.org](http://www.cantigny.org).

#### SOUTH CENTRAL

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

**RAP** APR. 6. **Miniature Gardens: Terrariums and Fairy Gardens.** Lecture. LSU AgCenter Botanic Gardens at Burden. Baton Rouge, Louisiana. (225) 763-3990. [www.BurdenHorticultureSociety.com](http://www.BurdenHorticultureSociety.com).

**RAP** APR. 11. **Japanese Gardens San Antonio Style.** Lecture. San Antonio Botanical Garden. San Antonio, Texas. (210) 207-3250. [www.sabot.org](http://www.sabot.org).

**RAP** APR. 11. **Tree Festival.** Sedgwick Coun-

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## Two New Garden Destinations in the Southeast

IT'S SHAPING UP to be a busier-than-usual spring for the Atlanta Botanical Garden (ABG) in Georgia, with two brand new additions in the works. "These new gardens," notes



Mature woodland at the ABG

Mary Pat Matheson, ABG's president and CEO, "continue the Garden's dynamic tradition of celebrating horticulture through innovative design and woodland stewardship." The first, Storza Woods, is scheduled for completion in April. This 15-acre woodland is one of the last mature forest environments in Atlanta, so great care was taken during construction to preserve its centuries-old trees. A seven-foot-high

boardwalk weaves through these trees, allowing visitors perfect vantage points to admire spring ephemerals, azaleas, and other woodland natives.

Then, on May 2, the ABG will open its new Gainesville location. This 168-acre site, donated by Charles and Lessie Smithgall, includes a visitor center, 2,000-seat amphitheater, a model train garden, and five acres of display gardens.

ABG participates in the American Horticultural Society's (AHS) Reciprocal Admissions Program, granting AHS members free admission if their membership address is more than 90 miles away from ABG. For more details about these two new sites, visit [www.atlantabotanicalgarden.org](http://www.atlantabotanicalgarden.org).

## Balboa Park's Centennial Celebrations



Alcazar Garden in Balboa Park dates to the 1930s.

BALBOA PARK, located in San Diego, California, is commemorating its centennial with a year-long celebration exploring many current and historical aspects of San Diego, including those of interest to gardeners. For example, coming up is the "Garden Party for the Century" from April 24 to May 9. This event includes a flower show, garden tours, expert consultations, demonstrations, and entertainment. Other garden venues beautified for the year-long celebration include the Alcazar Garden, reconstructed to its 1935 California Pacific International Exposition heyday, and the Lily Pond, built for the 1915 Panama-California Exposition, which received landscape lighting and refurbished balustrades.

History buffs can browse the "Balboa Park Exposition Designers 1915-1935" exhibit, which spotlights the work of more than 20 architects, designers, and landscape architects involved in the 1915 and 1935 expositions. Also part of the festivities are the "Coast to Cactus Exhibit," a 9,000-square-foot permanent exhibit showcasing the varied habitats of Southern California, and the Inez Grant Parker Memorial Rose Garden, considered one of the top 12 rose gardens in the world.

For more information, visit [www.balboapark.org](http://www.balboapark.org).

—Mary S. Chadduck, Editorial Intern

ty Extension Arboretum. Wichita, Kansas. (316) 660-0100. [www.sedgwick.ksu.edu](http://www.sedgwick.ksu.edu).

**RAP** APR. 18. **Living Wreath Workshop.** Springfield Botanical Gardens at Nathanael Greene/Close Memorial Park. Springfield, Missouri. (417) 891-1515. [www.botanicalcenter.org](http://www.botanicalcenter.org).

**RAP** APR. 18. **Ornamental Grasses.** Lecture. Dallas Arboretum and Botanical Garden. Dallas, Texas. (214) 515-6500. [www.dallasarboretum.org](http://www.dallasarboretum.org).

**RAP** APR. 13. **The Succulent Garden.** Class, workshop, and lunch. Garvan Woodland Gardens. Hot Springs, Arkansas.

(501) 262-9300. [www.garvangardens.org](http://www.garvangardens.org).

**RAP** APR. 25 & 26. **Spring Festival in the Japanese Garden.** Fort Worth Botanic Garden. Fort Worth, Texas. (817) 392-5510. [www.fwb.org](http://www.fwb.org).

**RAP** APR. 25 & 26. **Orchid Weekend.** Powell Gardens. Kingsville, Missouri. (816) 697-2600. [www.powellgardens.org](http://www.powellgardens.org).

**Looking ahead**  
**RAP** MAY 2. **Attracting Butterflies to Your Yard.** Lecture. Dallas Arboretum and Botanical Garden. Dallas, Texas. (214) 515-6500. [www.dallasarboretum.org](http://www.dallasarboretum.org).

**RAP** MAY 5-11. **National Wildflower Week.** Celebration. Lady Bird Johnson Wildflower Center. Austin, Texas. (512) 232-0200. [www.wildflower.org](http://www.wildflower.org).

### SOUTHWEST AZ, CO, NM, UT

**RAP** MAR. 28. **Interpreting and Using Your Soil Test.** Class. The Gardens on Spring Creek. Fort Collins, Colorado. (970) 416-2486. [www.fcgov.com](http://www.fcgov.com).

**RAP** APR. 10-25. **Bulbs & Blooms Festival.** Red Butte Garden and Arboretum at the University of Utah. Salt Lake City, Utah. (801) 585-0556. [www.redbuttégarden.org](http://www.redbuttégarden.org).

**RAP** APR. 11. **Hardy Bulbs for Colorado.** Lecture. Denver Botanic Gardens. Denver, Colorado. (720) 865-3500. [www.botanicgardens.org](http://www.botanicgardens.org).

**RAP** APR. 18. **Roses.** Lecture. The Hudson Gardens and Event Center. Littleton, Colorado. (303) 797-8565. [www.hudsongardens.org](http://www.hudsongardens.org).

**RAP** APR. 25. **The Spring Garden.** Workshop. Santa Fe Botanical Garden. Santa Fe, New Mexico. (505) 471-9103. [www.santafebotanicalgarden.org](http://www.santafebotanicalgarden.org).

**Looking ahead**

**RAP** MAY 2. **Super Small Space Vegetable Gardening in Containers.** Lecture. Denver Botanic Gardens. Denver, Colorado. (720) 865-3500. [www.botanicgardens.org](http://www.botanicgardens.org).

**RAP** MAY 7-9. **Spring Plant Sale.** Denver Botanic Gardens. Denver, Colorado. (720) 865-3500. [www.botanicgardens.org](http://www.botanicgardens.org).

**WEST COAST**

CA, HI, NV

**RAP** THROUGH APR. 12. **Aquascapes: The Art of Underwater Gardening.** Conservatory of Flowers. San Francisco, California. (415) 831-2090. [www.conservatoryofflowers.org](http://www.conservatoryofflowers.org).

**RAP** MAR. 28. **California Native Sage Festival.** Rancho Santa Ana Botanic Garden. Claremont, California. (909) 625-8767. [www.rsabg.org](http://www.rsabg.org).

**RAP** MAR. 28. **Pollination and Cultivation of the Vanilla Bean Orchid.** Lecture. Lyon Arboretum. Honolulu, Hawaii. (808) 988-0456. [www.manoa.hawaii.edu/lyonarboratum](http://www.manoa.hawaii.edu/lyonarboratum).

**RAP** APR. 25. **Spring Garden Festival.** The Water Conservation Garden. El Cajon, California. (619) 660-0614. [www.thegarden.org](http://www.thegarden.org).

**RAP** APR. 29. **Mini Carnivorous Bog.** Class. Sherman Library & Gardens. Corona del Mar, California. (949) 673-2261. [www.slgardens.org](http://www.slgardens.org).

**Looking ahead**

**RAP** MAY 9. **Gardens All Abuzz: Partnering With Pollinators.** Lecture. Regional Parks Botanic Garden. Berkeley, California. (510) 544-3169. [www.nativeplants.org](http://www.nativeplants.org).

**NORTHWEST**

AK, ID, MT, OR, WA, WY

**RAP** MAR. 28. **The Wonderful World of Trilliums.** Lecture. Bellevue Botanical Garden. Bellevue, Washington. (425) 451-3755. [www.bellevuebotanical.org](http://www.bellevuebotanical.org).

**RAP** APR. 12. **Pollination Ecology Walk.** Mount Pisgah Arboretum. Eugene, Oregon. (541) 747-3817. [www.mountpisgaharboretum.com](http://www.mountpisgaharboretum.com).

**RAP** APR. 19. **Early Spring Plants.** Class. Leach Botanical Garden. Portland, Oregon. (503) 823-9503. [www.leachgarden.org](http://www.leachgarden.org).

**Looking ahead**

**RAP** MAY 1-10. **Mayfest.** Garden tours, art displays, vendors, music. Lakewold Gardens. Lakewood, Washington. (253) 584-4106. [www.lakewoldgardens.org](http://www.lakewoldgardens.org).

MAY 9. **Spring Cleaning Your Roses.** Demonstration. Tizer Botanic Gardens & Arboretum. Jefferson City, Montana. (406) 933-8789. [www.tizergardens.com](http://www.tizergardens.com).

**CANADA**

**RAP** MAR. 29. **Basic Beekeeping.** Class. Toronto Botanical Garden. Toronto, Ontario. (416) 397-1341. [www.torontobotanicalgarden.ca](http://www.torontobotanicalgarden.ca).

**RAP** APR. 19. **Forest Gardening.** Workshop. Royal Botanical Gardens. Burlington, Ontario. (800) 694-4769. [www.rbg.ca](http://www.rbg.ca).

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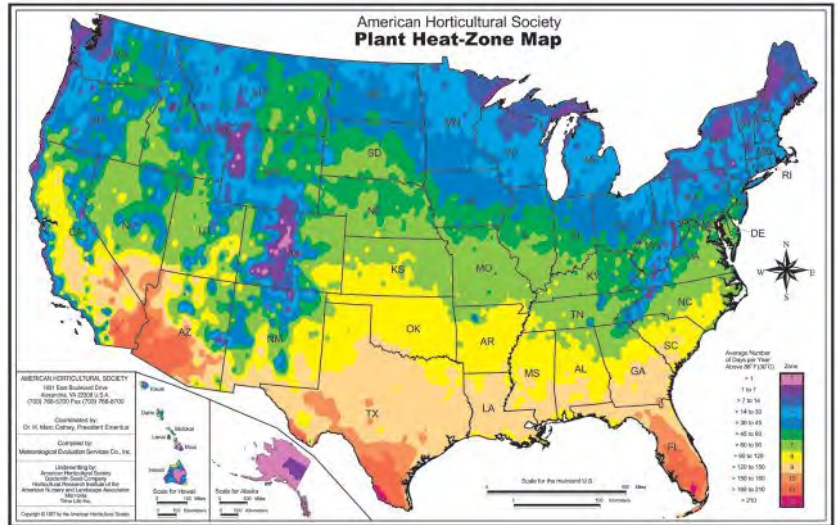
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# PRONUNCIATIONS AND PLANTING ZONES

Most of the cultivated plants described in this issue are listed here with their pronunciations, USDA Plant Hardiness Zones, and AHS Plant Heat Zones. These zones suggest a range of locations where temperatures are appropriate—both in winter and summer—for growing each plant. USDA Zones listed are still aligned with the 1990 version of the USDA's map.

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



***Acer griseum*** AY-sur GRIS-ee-um (USDA Hardiness Zones 5–8, AHS Heat Zones 8–4)

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

***Asclepias tuberosa*** as-KLEE-pee-us too-bur-O-suh (4–9, 9–2)

***Clematis montana*** KLEM-uh-tiss mon-TAN-uh (6–9, 9–6)

***Echinacea purpurea*** ek-ih-NAY-see-uh pur-PUR-ee-uh (3–9, 9–1)

***Erigeron speciosus*** ee-RIJ-ur-on spee-see-O-sus (2–8, 8–1)

***Eschscholzia californica*** es-SHOLZ-zee-uh kal-ih-FORN-ih-kuh (8–10, 10–1)

***Eutrochium purpureum*** yoo-TROK-ee-um pur-PUR-ee-um (3–8, 9–1)

***Fragaria chiloensis*** frah-GAY-ree-uh chil-o-EN-sis (4–8, 9–7)

***F. vesca*** F. VES-kuh (5–9, 9–1)

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

***Gelsemium sempervirens*** jel-SEE-me-um sem-pur-VY-renz (7–9, 10–4)

***Geranium x cantabrigiense*** juh-RAY-nee-um kan-tuh-brij-ee-EN-see (4–8, 8–4)

***Hamamelis virginiana*** ham-uh-ME-liss vir-jin-ee-AN-uh (3–8, 8–1)

***Helleborus x sternii*** hel-eh-BOR-us STERN-ee-eye (6–8, 8–5)

***Heuchera americana*** HYEW-kur-uh uh-mair-ih-KAN-uh (4–8, 8–1)

***H. micrantha*** H. my-KRAN-thuh (6–8, 8–1)

***H. sanguinea*** H. san-GWIN-ee-uh (3–8, 8–1)

***Ilex verticillata*** EYE-leks vur-tih-sih-LAY-tuh (3–9, 9–1)

***Liatris spicata*** ly-AY-triss spy-KAY-tuh (4–9, 9–1)

***Lonicera sempervirens*** lah-NISS-er-uh sem-pur-VY-renz (4–9, 9–1)

***Magnolia stellata*** mag-NOLE-yuh stel-LAY-tuh (4–9, 9–5)

***Monarda didyma*** muh-NAR-duh DID-ih-muh (3–9, 9–1)

***Philadelphus lewisii*** fil-uh-DEL-fus loo-ISS-ee-eye (4–9, 9–1)

***Physocarpus opulifolius*** fy-so-KAR-pus op-yew-lih-FO-lee-us (3–7, 7–1)

***Phytolacca americana*** fy-toh-LAK-uh uh-mair-ih-KAN-uh (5–9, 9–5)

***Ribes aureum*** RY-beez AW-ree-um (5–8, 8–5)

***R. leptanthum*** R. lep-TAN-thum (4–7, 7–1)

***R. odoratum*** R. o-doh-RAY-tum (4–8, 8–5)

***R. oxycanthoides*** R. awk-see-uh-kan-THOY-deez (2–6, 6–1)

***Rubus chamaemorus*** ROO-bus kam-ee-MOR-us (2–6, 6–1)

***R. idaeus*** R. eye-DEE-us (4–11, 10–1)

***R. parviflorus*** R. par-vih-FLOR-us (3–9, 9–1)

***R. spectabilis*** R. spek-TAB-bih-liss (5–8, 8–5)

***R. ursinus*** R. er-SY-nus (5–10, 10–1)

***Salvia mellifera*** SAL-vee-uh mel-LIF-ur-uh (7–10, 10–7)

***S. sonomensis*** S. so-no-MEN-sis (10–11, 12–10)

***Sambucus nigra* ssp. *canadensis*** sam-BOO-kus NY-gruh ssp. kan-uh-DEN-siss (2–9, 9–1)

***S. racemosa*** S. ras-eh-MO-suh (3–7, 7–1)

***Sarcococca ruscifolia*** sar-kuh-KOKE-uh rus-kih-FO-lee-uh (7–9, 9–7)

***Symphytotrichum novae-angliae*** sim-fy-o-TRY-kum NO-vee-ANG-lee-ay (4–8, 8–1)

***S. oblongifolium*** S. ob-lon-jih-FO-lee-um (4–9, 9–4)

***Syringa x hyacinthiflora*** sih-REENG-guh hy-uh-sin-thee-FLOR-uh (3–8, 8–1)

***S. meyeri*** S. MY-er-eye (4–7, 7–1)

***S. oblata*** S. ob-LAY-tuh (3–6, 6–1)

***S. pekinensis*** S. pee-kih-NEN-siss (4–7, 7–1)

***S. x prestoniae*** S. press-TON-nee-ee (3–7, 7–1)

***S. pubescens* ssp. *patula*** S. pyew-BESS-enz ssp. PAT-yew-luh (5–8, 8–3)

***S. reticulata*** S. reh-tik-yew-LAY-tuh (5–8, 8–5)

***S. vulgaris*** S. vul-GAIR-iss (3–7, 7–1)

***Tradescantia ohiensis*** trad-es-KAN-tee-uh o-hy-EN-siss (4–9, 9–4)

***Tsuga canadensis*** SOO-gah kan-uh-DEN-siss (4–7, 7–3)

***T. caroliniana*** T. kar-o-lin-ee-AY-nuh (6–7, 7–1)

***Vaccinium angustifolium*** vak-SIN-ee-um an-gus-tih-FO-lee-um (2–8, 8–1)

***V. corymbosum*** V. kor-im-BO-sum (3–7, 7–1)

***V. deliciosum*** V. deh-lih-see-O-sum (4–8, 8–4)

***V. macrocarpon*** V. mak-ro-KAR-pon (2–7, 7–1)

***V. vitis-idaea* var. *minus*** V. VY-tis-eye-DEE-uh var. MY-nus (2–6, 6–1)

***Veronicastrum virginicum*** ver-on-ih-KASS-trum vir-JIN-ih-kum (4–8, 8–3)

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## Simple Joys of Ohio Spiderwort

by Gladys J. Richter

**O**HIO SPIDERWORT (*Tradescantia ohioensis*, USDA Hardiness Zones 4–9, AHS Heat Zones 9–4) seems to have a calming effect in my busy native plant garden in Missouri. I enjoy its “greet-the-morning” habit of blooming while the day is fresh and cool. Then there is the tranquil deep blue color of its flowers, which pairs harmoniously with cool white or silvery hues, or provides a soothing note in a bed of warmer-colored flowers.

Also known as widow’s tears and blue jacket, this perennial member of the day-flower family (Commelinaceae) is native to the eastern half of the United States, ranging as far west as Kansas and Nebraska. Spiderwort’s generic name *Tradescantia* pays tribute to the 17th-century plant explorer John Tradescant, who served as royal gardener to England’s King Charles I. This name is fitting considering spiderwort’s royal blue to purple wardrobe.

### EPHEMERAL FLOWERS

During its first full year of growth, spiderwort produces only its elegant, arching, grasslike, blue-green foliage. From the second year onward, clusters of handsome flowers open atop slender, jointed, straight to zigzag stems three to four feet tall. Each flower is made up of three delicate, rounded petals. These blossoms, with cobweb centers—which inspired the name spider-



Deep blue to violet is the most common color of Ohio spiderwort flowers.

wort—dotted with bright yellow anthers, appear between May and July. Flowers are most commonly blue to violet, but can be lavender or white. Each flower usually blooms for only one day, mostly during the morning hours—or a bit longer on overcast days. By afternoon, each blossom shrivels into a jellylike droplet—hence the name widow’s tears.

### CULTURE AND GARDEN USE

Tough and adaptable, spiderwort grows well in both full sun and part shade and tolerates a range of soils from moist to slightly dry. It may look a bit unruly in late summer as its foliage ages and seed-heads form, but you can simply cut it back to eight inches for a tidier appearance and to encourage possible autumn rebloom. Over time, spiderwort spreads to form large clumps. Offshoots can be

divided from the parent plant and transplanted. Spiderwort also self-sows readily if not deadheaded, but is only weedy if grown in fertile, moist soil.

Plant spiderworts in groups of three or more, placing them behind shorter plants. Other native perennials that make good companions include lanceleaf coreopsis (*Coreopsis lanceolata*) and beardtongue (*Penstemon digitalis*).

Spiderwort’s ease of cultivation, its penchant for attracting a variety of pollinators, and its early-summer floral display has earned it a permanent spot in my native plant garden. There are dozens of species native to North America, so check at your local native plant nursery to see if they have ones adapted to your region.

Garden writer Gladys J. Richter lives in Richland, Missouri.

### Sources

**Missouri Wildflowers Nursery**,  
Jefferson City, MO. (573) 496-3492. [www.mowildflowers.net](http://www.mowildflowers.net).

**Prairie Moon Nursery**,  
Winona, MN. (866) 417-8156.  
[www.prairiemoon.com](http://www.prairiemoon.com).

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