

The American GARDENER®

The Magazine of the American Horticultural Society September / October 2009

Heartland Harvest Garden

Deciduous Native Hollies

James van Sweden and
the New American Garden

Strategies for Gardening on Slopes



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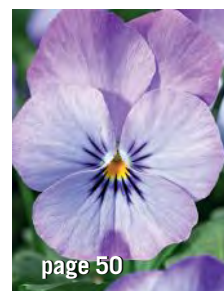
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NOTES FROM RIVER FARM

AS THE NATION'S leading gardening organization, the American Horticultural Society has long served as a champion for the importance of plants and gardens in our lives. The phrase "connecting people with plants" is often used to describe our work. We strive to promote gardening, foster the use of good gardening practices, and give gardeners across America the information and inspiration they need to pursue their passion and inspire others with their achievements.

On a day-to-day basis, our success comes down to people—those individuals and groups across America who are making a difference on many levels. Through our work with the Society, we meet many such people. We are proud to serve this national community of gardeners and salute you—the American gardener—for the contribution you are making to the quality of life in our country.

Sometimes we refer to the people who inspire us as "horticultural heroes." Each year, the AHS recognizes, through its national Great American Gardeners Awards program, people and organizations that are making outstanding contributions in various horticultural fields. Nominations for these awards close at the end of September, and if you have not already done so, we hope you will put forward an exceptional individual or an organization that is doing good work in your community—you can find a nomination form on the AHS website (www.ahs.org).

It is with sadness that we note the death earlier this year of two of the Society's own horticultural heroes and award winners. Beverly White Dunn, of Birmingham, Alabama, was a member of the Society's Board of Directors from 1988 to 1994 and received our Frances Jones Poetker Award in 1991 in recognition of her contributions to the field of floral design. John L. Creech, of Columbus, North Carolina, served as president of the AHS Board of Directors from 1953 to 1956 and is a legendary figure in American horticulture. His distinguished professional career included work with the U.S. Department of Agriculture's Office of Plant Exploration and Introduction and serving as a director of the United States National Arboretum. John received the Society's Liberty Hyde Bailey Award in 1989 and was a long-time editorial advisor for this magazine.

As summer gives way to fall, this issue of *The American Gardener* offers some informative articles to help you make the most of the season. For those in colder climates, we offer advice on extending the growing season with row covers, cold frames, and other helpful techniques. Those looking for fall accents in the garden will appreciate a profile of deciduous native hollies for berries and colorful foliage. If steep terrain in your garden has you puzzled, you'll enjoy the article on strategies for managing slopes. And there's much more! So make yourself comfortable and enjoy this issue of *The American Gardener*.

Susie Usrey, Chair, AHS Board of Directors
Tom Underwood, Executive Director



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MEMBERS' FORUM

HIBISCUS NOMENCLATURE

I'm puzzled and intrigued by your identification of the crimson-eyed white hibiscus on page 14 of the July/August 2009 issue. Identical flowers are covering our brackish North Carolina wetlands right now and, in my reference books (okay, some are old) for this area they are identified as *Hibiscus moscheutos*, not *H. lasiocarpus* as in your article.



Hibiscus lasiocarpus or *H. moscheutos*?

I did research online and found that some taxonomists have separated *H. moscheutos* into subspecies, with ssp. *lasiocarpus* as an extra epithet assigned to the woolly subspecies of this plant, the one most commonly found in California. I also found a 2001 article from *The American Gardener* that identifies as *H. moscheutos* what appears to me to be the same plant I'm looking at in my wetlands. These plants, now blooming, have lance-shaped leaves that are not woolly like those of *Kosteletzkya virginica*, which also grows in the wetlands but is still in bud.

Have the taxonomists been playing with these plant names? It's enough to make an amateur like me want to give up on the use of scientific names.

Ellen Herron
Havelock, North Carolina

Editor's response: Alas, botanical nomenclature is always in flux. The USDA PLANTS database (<http://plants.usda.gov>) now lists the plant in question as *Hibiscus*

Member Services

We love to hear from our members! If you have questions about your American Horticultural Society membership, would like to become a member, renew your membership, give a gift of membership, or update your mailing or e-mail address with the AHS, please call (800) 777-7931 ext. 119 or e-mail us at membership@ahs.org.

lasiocarpus ("os" rather than "us" based on the original name given by Antonio Jose Cavanilles). And in this case, the two taxa have overlapping native ranges and interbreed readily, so identification is challenging. There are some good images of the flowers of both species on the website of the Lady Bird Johnson Wildflower Center (www.wildflower.org).

PRONUNCIATION QUESTION

I always enjoy the pronunciations page in the back of each issue, and I'm curious about what set of guidelines is being used to establish syllables, long and short vowel sounds, accents, etc. It would be helpful to have access to the guidelines in order to work with names not on the list each month. Are the guidelines available?

Gary Emberger
Messiah College
Grantham, Pennsylvania

Editor's response: We use several reference books to compile the pronunciations listed in the magazine (two are listed below) and over time have developed a database of several thousand pronunciations for plant names. Eventually we hope to refine this database and make it accessible to AHS members through the website.

■ *Stearns Dictionary of Plant Names for Gardeners* by William T. Stearn. Cassell Publishers, London, 1972.

■ *The Pronouncing Dictionary of Plant Names*, American Nurseryman Publishing Company, Chicago, Illinois, 2006.

CLEBSCH AND SALVIAS

I'm pleased you featured Betsy Clebsch in the May/June issue. Her work with *Salvia* has brought this group of dazzling plants to the attention of gardeners around the world.

A gracious woman with a wonderful sense of humor, Betsy spent many hours in the botany library of my home institution—the California Academy of Sciences in Golden Gate Park—during the time she was working on the initial and second edition of her *Salvia* book. Some of the salvias she has given me are thriving in my garden and attract many Anna's hummingbirds.

Frank Almeda
California Academy of Sciences
San Francisco, California

LEPIDOPTERAN DECLINE?

Has anyone else noticed a decline in the butterfly and moth population? In my Maryland garden, I have seen an immense decline since 2005, which I have tracked through my annual photos of blooming Joe Pye weed and zinnias. Each summer



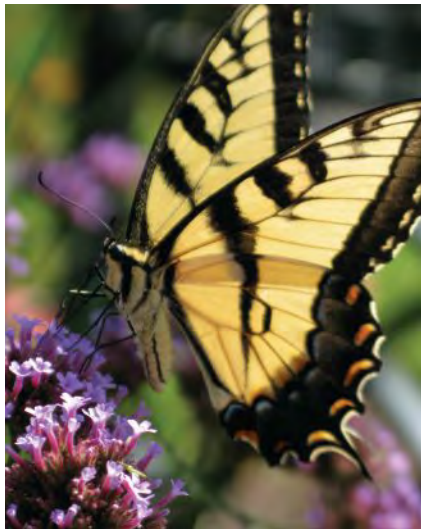
through 2005, the flowers were covered with yellow swallowtails and other butterflies and moths. Last year, I did not see one swallowtail. This year, I feel fortunate to have seen three yellow swallowtails in July (see photo above). My garden still attracts bumblebees but not much else.

Eleanor McKay
Annapolis, Maryland

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



Legacies *assume many forms.*



Whether making estate plans, considering year-end giving, honoring a loved one or planting a tree, the legacies of tomorrow are created today.

Please remember the American Horticultural Society when making your estate and charitable giving plans. Together we can leave a legacy of a greener, healthier, more beautiful America.



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

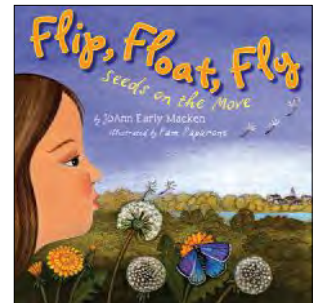
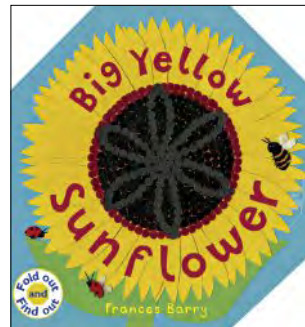
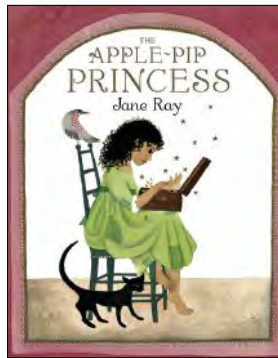
Making America a Nation of Gardeners, a Land of Gardens

Growing Good Kids Award Winners

THE THREE WINNERS of the 2009 “Growing Good Kids—Excellence in Children’s Literature” Award were announced at the AHS National Children & Youth Garden Symposium in Cleveland, Ohio, in July. This award program, co-sponsored by the AHS and the National Junior Master Gardener program, was instituted in 2005 and recognizes children’s books that tell captivating stories while fostering a greater appreciation for plants, gardening, and the environment. Books are judged based on certain criteria, including the ability of the story and illustrations to engage children and effectively convey a positive message.

The 2009 award winners are: *The Apple Pip Princess* by **Jane Ray**, *Big Yellow Sunflower* by **Frances Barry**, and *Flip, Float, Fly—Seeds on the Move* by **JoAnn Early Macken** and illustrated by **Pam Paparone**.

Nominations for next year’s Growing Good Kids book award opened in August and will be accepted until April 23, 2010. To learn more about the “Growing Good Kids” book award program and to view previous winners of the award, visit www.jmgkids.us.



Garden School Focused on Sustainability

ONE OF THE key messages important to the AHS’s mission is promoting environmentally sound gardening practices. Focusing on this concept, the 2009 AHS Garden School, “Green Garage: Sustainable and Earth-Friendly Solutions for the Landscape,” took place at the Lee Center in Alexandria, Virginia, on June 27. This event was an opportunity to expand on the educational messages of the AHS Green Garage®, an



John Noelle, city arborist for Alexandria, demonstrates proper tree-planting techniques to Garden School participants.

initiative designed to promote earth-friendly gardening techniques, products, and tools.

Co-sponsored by the City of Alexandria, the Garden School featured lectures and workshops, all of which took sustainability and eco-awareness as central themes. Among the speakers were **Marcy Damon**, restoration coordinator for the Chesapeake Bay Foundation; author and soil health expert **Jeff Lowenfels**; **Doug Tallamy**, author of *Bringing Nature Home*; and **Paul Tukey**, author of *The Organic Lawn Care Manual*. Additionally, vendors and businesses that offer green products, services, and tools were on display in the exhibit hall.

Karen Keefer, an AHS member who attended the event, says, “It inspired me to incorporate organic lawn care in my own yard.”

The AHS Garden School program debuted in 2004 and provides attendees the opportunity to exchange information with fellow gardeners and learn from renowned horticulturists from across the country. Look for upcoming Garden School offerings in future issues of *The American Gardener*.

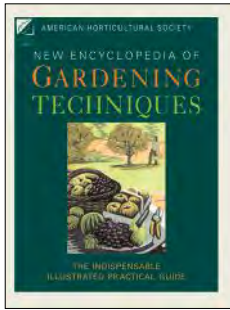
Get Ready for the Seed Exchange

SINCE 1959, AHS members have shared favorite, heirloom, or uncommon plant varieties with fellow gardeners across the country through the AHS Seed Exchange Program. The Seed Exchange is open exclusively to AHS members and is made possible through their donations. So if you have seeds you’d like to share, now is the time to start harvesting them.

Seeds submitted for the 2010 seed exchange must be post-marked by November 1, 2009. Members who contribute seeds will have the opportunity to pick first from the list of available seeds compiled from all the donations. In an effort to reduce costs and paper usage, the list of seeds to choose from will be available on the AHS website in the members-only section in early January 2010. Complete information on collecting and mailing seeds, along with a donation form, can be found between pages 8 and 9 of this issue. Or visit www.ahs.org and log in to the members-only section for more information.

AHS Introduces New Encyclopedia

THE SOCIETY will soon welcome a new title to its line of authoritative gardening reference books; *The American Horticultural Society New Encyclopedia of Gardening Techniques* (Mitchell Beazley/Octopus Books USA) will be published in November. This comprehensive, illustrated encyclopedia covers a broad range of practical gardening techniques and concepts that every North American gardener needs to be successful. Within its pages, readers will find detailed information on how to grow plants of all kinds—from annuals, bulbs, perennials, trees, shrubs, and vines to herbs, fruits, and veg-



VIVEKA NEVELIN

Meadow Respite



The André Bluemel Meadow at River Farm has become a haven for wildlife since its completion last summer. Here a mockingbird takes a rest on a bluebird nesting box amid a sea of grasses.

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PHOTO BY DEBRA KAVATA FROM 2010 GARDENERS' CALENDAR

2010 "Gardener's" Calendar

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River Farm's New Sod Sofa



This August, River Farm gained a new garden feature—a sod sofa—thanks to the generous donation of soil and sod from AHS corporate member Chapel Valley Landscape Company of Woodbine, Maryland. In addition to adding an element of whimsy for visitors, the sofa provides an ideal location for sitting and viewing the André Bluemel Meadow and the Potomac River.



The sculpted soil foundation for the sod sofa.

etables—using organic and earth-friendly methods.

The reference provides concise and helpful information on a variety of basic gardening topics such as composting, mulching, pruning, controlling weeds, and solving pest problems, while delving into more advanced concepts such as propagating plants, installing water features, selecting lawn alternatives, identifying microclimates, and extending the growing season. All the techniques and concepts are clearly portrayed through the use of more than 2,000 easy-to-follow color illustrations and photographs.

Primary editors for the book were **David J. Ellis**, editor of *The American Gardener*; **Fiona Gilsean**, a garden book editor and contributor to the *Sunset Western Garden Book*; **Rita Pelczar**, contributing editor to *The American Gardener* and co-author of the *AHS SmartGarden Regional Guide* book series; and **Graham Rice**, an award-winning garden writer who was editor-in-chief of the *AHS Encyclopedia of Perennials* (Dorling Kindersley, 2006).

To learn more about the book or purchase copies, visit the AHS website (www.ahs.org).

Auction of One-of-a-Kind Horticultural Experiences

HOW WOULD YOU like to stroll through the private garden of global plant explorer **Panayoti Kelaidis**, getting behind-the-scenes stories about his plant collecting trips, or sit down with children's gardening expert **Jane Taylor** to learn the inspiration behind her groundbreaking programs? Unique one-on-one encounters with prominent American horticulturists and landscape designers like these are being made available through an online auction held in conjunction with the Society's annual

TOP: JAMES GAGLIARDI. BOTTOM: TRISTAN MARDALL

Gifts of Note

If you would like to support the American Horticultural Society as part of your estate planning, as a tribute to a loved one, or as part of your annual charitable giving plan, please contact: Stephanie Perez, Development and Membership Manager, at (703) 768-5700 ext. 127 or sperez@ahs.org.

In addition to vital support through membership dues, the American Horticultural Society relies on grants, bequests, and other gifts to support its programs. We would like to thank the following donors for gifts received between June 1, 2009 and July 31, 2009.

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Gala on September 19. Among other exciting opportunities available for bidding are an afternoon at the Atlanta Botanical Garden with its Executive Director **Mary Pat Matheson**, and a personalized tour of three gardens by designers **Wolfgang Oehme** and **Carol Oppenheimer**. Visit www.ahs.org/auction for a full list of these exceptional experiences and more information about the auction process. The deadline to bid on the auction items is October 19, 2009.

Water-Thrifty Gardening Webinar

ON JULY 30, award-winning author and garden designer **Scott Calhoun** presented "Dry Beauty: Strategies for Designing Water-Thrifty Gardens," an online seminar exclusively for AHS members. A self-proclaimed desert rat, Calhoun shared his tips and tricks for creating beautiful but drought-tolerant gardens with 120 members hailing from 34 states, the District of Columbia, and one Canadian province.

The webinar program is a benefit of AHS membership, allowing participants to learn from horticultural experts without having to leave home. Look for speakers and topics for next year's webinars in upcoming issues of *The American Gardener*. If you would like to receive announcements about future webinars, please sign up for the mailing list in the members-only area of the AHS website. 

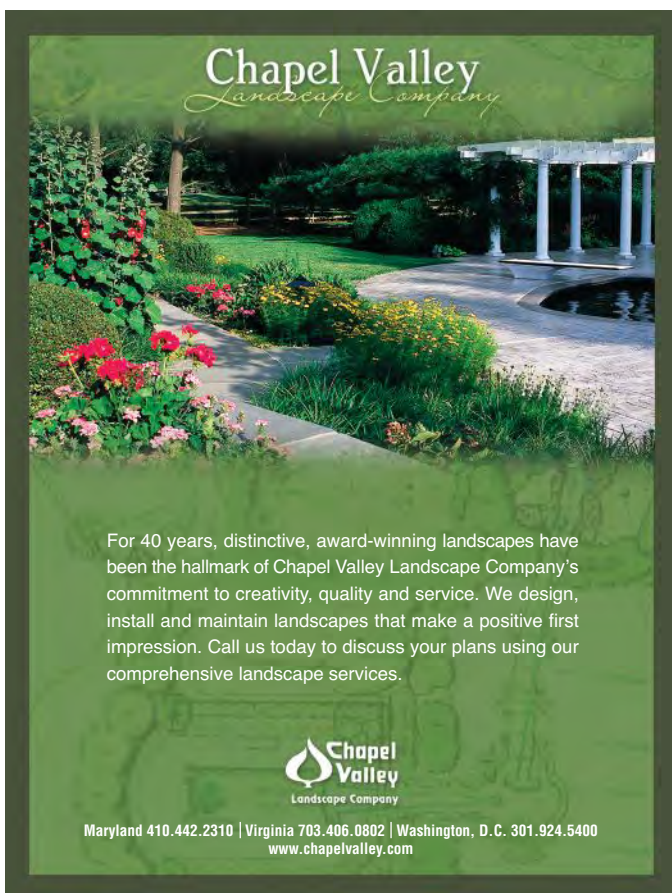
News written by Editorial Intern Amanda Griesser.



AHS NATIONAL EVENTS AND PROGRAMS 2009 CALENDAR


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

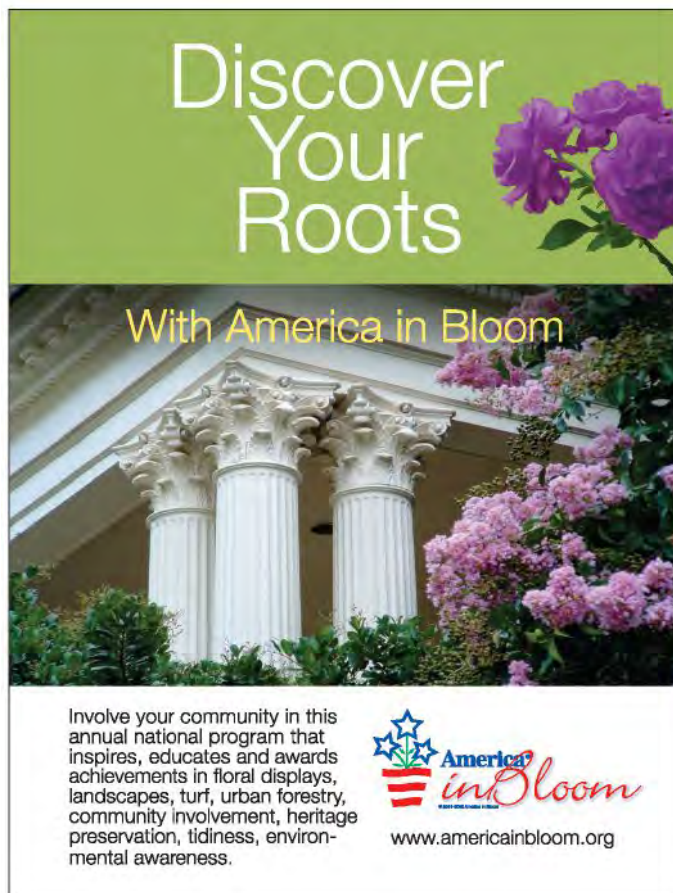
- SEPT. 19. **AHS Annual Gala: "Celebrating the Elegance of Simplicity."** River Farm, Alexandria, Virginia.
- OCT. 1-3. **America In Bloom Symposium and Awards Ceremony.** Hershey, Pennsylvania.
- OCT. 23. **Dr. H. Marc Cathey Day.** River Farm, Alexandria, Virginia.
- DEC. 1-24. **Holiday Trees Display.** River Farm, Alexandria, Virginia.
- DEC. 10. **Annual Holiday Reception.** River Farm, Alexandria, Virginia.

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AHS PARTNERS IN PROFILE

Brent and Becky's Bulbs: Daffodils and So Much More

by Amanda Griesser

IN MARCH 2009, Brent and Becky's Bulbs of Gloucester, Virginia, became one of the American Horticultural Society's valued corporate members. This national bulb and flower supplier has been family-operated since 1900—the year Brent Heath's grandfather purchased the 10-acre farm property where Brent and Becky's Bulbs still operates today.

In 1972, Brent was working as the director of a summer camp, but when his mother almost sold the business, he decided to purchase it and put his gardening upbringing to work. Becky was working as a school teacher in 1978 when she met Brent. Before long, they were married and running the business almost by themselves.

GROWING OPERATIONS

The company has expanded gradually over the past 30 years to include nearly 40 employees. In 1979, when the Heaths first started working together, they sold daffodils exclusively. In fact, the business went by the name Daffodil Mart until 1999, when it became Brent and Becky's Bulbs.



Brent and Becky Heath on their bulb farm.

"Customers started asking, 'We get all our daffodils from you, why can't we get tulips from you?'" Becky says. Realizing that a broader selection of plants was needed, the Heaths began selling tulips and a variety of other bulbous plants. The company now offers more than 1,000 bulb varieties and ships to every state in the United States.

The majority of their business is generated through two catalogs they mail

each year—one for bulbs that bloom in the fall and spring, and one for those that bloom in the summer—and from their online catalog.

Locally, they sell cut-flower arrangements and have instituted a service that offers regular flower arrangement deliveries for offices, homes, or restaurants. At the Bulb Shoppe on the farm, local customers can purchase bulbs, gardening supplies, books, and gift items.

EDUCATING GARDENERS ACROSS AMERICA

When not tending to the gardens, Brent and Becky put their teaching backgrounds to good use by touring the country and speaking at schools, public gardens, garden shows, and community gardening events. In an effort to educate those closer to home, the Heaths are currently designing a Chesapeake Friendly Teaching Garden that uses organic growing methods. Brent and Becky have also co-authored two books, *Daffodils for North American Gardens* (Elliot & Clark, 1995) and *Tulips for North American Gardens* (Bright Sky Press, 2001).

Although Brent and Becky's Bulbs became a corporate member of the AHS only recently, the two organizations have shared a working relationship for many years. Brent and Becky's Bulbs has donated thousands of bulbs to the AHS to beautify the gardens at its River Farm headquarters.

In addition to the marketing opportunity the partnership affords, Becky points to the sense of stability of having an "official" relationship. "It's kind of like dating seriously or getting engaged after dating someone for a long time," she says. "We've always enjoyed our relationship with the AHS, and we want to see more people getting involved in the organization."

Amanda Griesser is an editorial intern for The American Gardener.

Buy Bulbs, Support the AHS

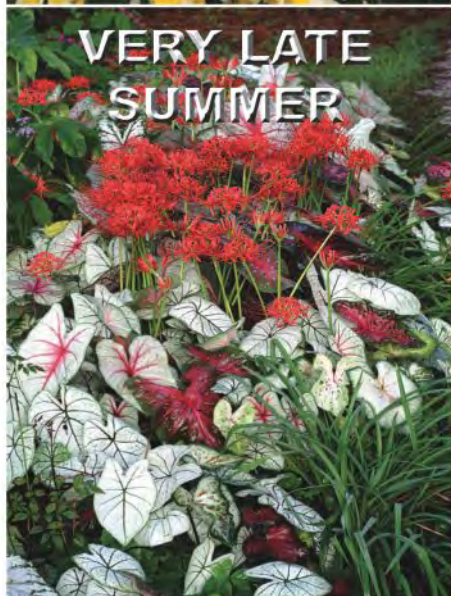
Brent and Becky's Bulbs has recently instituted a new fundraising program called "Bloomin' Bucks." Before making an online purchase from Brent and Becky's Bulbs, customers can select a non-profit organization—such as the AHS—to support by visiting www.bloominbucks.com. Twenty-five percent of the purchase price will then go to the designated organization.

For more information about Brent and Becky's Bulbs, visit www.brentandbeckysbulbs.com. To learn more about the AHS corporate member program, e-mail Courtney Capstack at ccapstack@ahs.org.



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How to get youth involved with plants in community settings was a powerful message of the National Children & Youth Garden Symposium in Cleveland in July. BY MELISSA HEBERT

finding Common Ground

ENVISION A WORLD where every child has access to a garden, and parents, teachers, and the entire community are involved in nurturing young people's interest in plants. In addition to imagining this scenario, attendees of the American Horticultural Society's 2009 National Children & Youth Garden Symposium, held July 23 to 25 in Cleveland, Ohio, shared ideas, experiences, and success stories that could help turn this vision into reality.

"The Symposium made many things seem possible, doable, and accessible," says **Kate Weinans**, youth programs coordinator for the University of Illinois Extension



Service in Chicago. Weinans, along with more than 250 other participants from 35 states including teachers, garden designers, public garden administrators, and others involved with youth, came to the 17th annual Symposium to gain inspiration and insight from leaders in the field.

Cleveland was an ideal place to explore the Symposium's theme, "Common Ground: Gardens For a Greener Tomorrow." Cleveland Botanical Garden, which hosted the event, is home to the Hershey Children's Garden, which was the first public children's garden in Ohio when it debuted 10 years ago. The botanical garden also coordinates its exemplary Green



Symposium tours included the Hershey Children's Garden, above, and several of the Green Corps program's urban farms, top.

TOP: COURTESY OF DAVID BROWN. BOTTOM: TOM UNDERWOOD



Green Corps student workers give tours of the program's five urban farms to Growing Power founder Will Allen, above, and a group of Symposium attendees, top.

Corps urban youth program, which gives teenaged employees the opportunity to learn about gardening and acquire practical job skills while transforming vacant lots into flourishing farms.

CULTIVATING COMMUNITY

Successful programs for bringing children of all ages to gardening and plants—and sustaining that interest—were the focus of

many events during the Symposium. For urban farming pioneer **Will Allen**, founder and CEO of the national nonprofit Growing Power and keynote speaker at the Symposium, getting kids involved in gardening is part of his mission of bringing about social change.

At a time when many city neighborhoods around the country only have fast-food chains, convenience stores, or

neighborhood stores where the produce is inferior and overpriced to boot, Allen feels developing urban gardens is imperative to America's economic and social revival. "In Cleveland, only two percent of the food bought here is produced in or around the city," Allen noted during his keynote address. "Think about what bringing that up to 10 percent would do for everything from jobs to the environment."

Getting children involved in gardening, Allen pointed out, has many positive effects. Kids learn hands-on applications of math and science, develop social skills working with others in a garden setting, learn about health and nutrition, and have something to do that keeps them away from destructive behavior.

EMPOWERING YOUTH

Hearing about Growing Power was inspirational for Green Corps staff, many of whom attended Allen's address. "Will sets the standard for the rest of us," says Green Corps Program Director **Bob Shields**. "What we're doing is on a much smaller scale, but we're working in that direction."

Green Corps grows fruits and vegetables that are sold at farm markets and used to make a Ripe From Downtown® line of salsas and salad dressings. But the kids are the primary crop, Shields says. Growing an interest in gardening, a sense of responsibility, and job skills in these youth is Green Corps' greatest mission.

Attendees had a chance to see Green Corps' work up-close—and hear some of the students' personal experiences—during tours of the program's five urban farms. For example, **Jennifer Tran**, an employee at the Esperanza Garden, Green Corps offered an alternative to working in a factory. She loves being outdoors in the garden, cultivating a diverse assortment of vegetables, herbs, and flowers.

Pasadena 2010

Mark your calendar for next year's National Children & Youth Garden Symposium, which will be held July 22 to 24 in Pasadena, California. The call for educational sessions will open in late September. Please visit www.ahs.org for more details.

At the Yellow House Garden, student employees lined up to individually greet each guest and lead tours. First-year Green Corps member **Timothy Holt** showed off his planting of watermelons and tomatoes.

“It was most exciting for me to see the youth really be leaders here,” reflects **Marcia Eames-Shevly** of the Garden-Based Learning program at Cornell University in Ithaca, New York. “They’re not just working, but learning and growing.”

SHARING SUCCESSES

In addition to garden tours, the Symposium included more than 30 educational sessions, covering a variety of topics from designing children’s gardens to incorporating them into school environments and curricula. For example, **Katrinka Morgan**, executive director of the Herb Society of America (HSA), and **Janeen Wright**, an HSA horticulturist and educator, spoke about creating an indoor herb garden that would last through the school year and how it could be applied to subjects ranging from math to art. They also discussed how to fund school gardens through events such as plant



Symposium attendees sample salsa made from produce grown in Green Corps gardens.

sales, assistance from local businesses and gardening clubs, and the support of parents and the community.

Along with delivering practical information, several sessions also made use of

hands-on activities to get their messages across, such as “Easy to Use Camp Ideas” led by **Dave Francis** from the Utah State University Extension Service in Lehi. “The presenter had us jump right into a

TIPS FOR CREATING AN ENGAGING GARDEN FOR CHILDREN

When it comes to planning and creating a garden for children at home or in a public setting, design is the key to success. It’s hardly surprising then that presentations focusing on design were very popular with Symposium attendees. Speakers had lots of advice for attracting children to the garden and keeping them there. Here are a few ideas:

- Include plants that engage children on a sensory level, whether it’s through sight, touch, smell, or taste. **Norm Lownds**, curator of the Michigan State University 4-H Children’s Garden, recommends sensitive plant (*Mimosa pudica*), with leaves that collapse inward when touched, or eyeball plant (*Spilanthes oleracea*), which has yellow flowers with red centers, resembling eyeballs.

- Water is a key element that draws in children. It can be a brook, fountain, birdbath, or fish pond.

- Have children participate in the process of selecting and growing plants, giving them a chance to learn about them and get excited about them.



- Don’t forget wildlife. Include plants (and water) to attract birds, butterflies, and beneficial insects.

- **Lolly Tai**, a professor of landscape architecture at Temple University-Ambler, advises giving kids some active space in the garden, such as a tree house or fort they can climb, winding paths for running, or a vegetable patch that needs tending.

- Create spaces just for kids—for example a child-sized bench for reading, or a bean teepee made by staking beanpoles in a teepee shape and planting flowering vines on them.

- Adding sculptures and other creative elements to a garden makes it inviting to both kids and adults. —M.H.

Child-sized elements such as this carrot gateway at the Hershey Children’s Garden help capture children’s imagination.

GPS activity as a warm-up exercise and then we moved on to a fun-filled hour of projects and ideas based on his use of themes for the programs he has developed,” says **Pam Hosimer** from Damascus, Maryland. “The ideas he presented meshed perfectly with many of the programs I use at summer camps and I am excited to incorporate them in the near future.”

Literature came to life during the Symposium’s closing event, a live performance based on the book *Seedfolks*—written by Newbery Medal-winning author **Paul Fleischman**—which chronicles how residents of a diverse Cleveland neighborhood are brought together by an urban garden. Teens from Cleveland’s **Young Audiences** program took on characters from the book, telling their stories of how a vacant lot was transformed into a community gathering place.

The story offered challenging roles for the young actors, many of whom



Teen actors perform in *Seedfolks*, the story of how residents of an ethnically diverse Cleveland neighborhood turn a trash-covered vacant lot into a vibrant community garden.

were portraying characters of a different age and race. Sixteen-year-old **Javac Brown**, an African-American, played a nine-year-old Vietnamese girl named Kim. For Brown, the hardest part was portraying Kim’s age and her attempt,

by growing beans in the garden, to forge a connection with the dead father she never knew. “She’s in a hard situation,” Brown explains. “But she goes from depressed to hopeful over the course of the play.”

That sense of hope was a fitting ending for the Symposium, as attendees take what they’ve learned and apply it to their own gardens, classrooms, and neighborhoods. “It’s been wonderful to learn what others are doing and how we can be part of a greater gardening movement,” says **Dana Freeman**,

director of the Gifford Park Community Garden in Omaha, Nebraska. “Now I am dreaming my youth gardening programs bigger for summer 2010!”

Inspiring this kind of ambition and keeping the momentum of the youth gardening movement going are exactly what the Symposium is all about.

Melissa Hebert is a freelance writer based in Avon Lake, Ohio.

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gardening on the **Slope**

BY KAREN BUSSOLINI



Above: A stream of the author's favorite silver plants—lamb's ears (*Stachys byzantina* and cultivar 'Big Ears'), *Rumex* 'Silver Shield', *Salvia* 'Berggarten'—prevents water from eroding the slope in her Connecticut garden. Right: Tucked in pockets near a boulder, low-growing *Arabis procurrens* 'Glacier', thyme, and *Mazus reptans* keep soil in place year round.

A STEEP YARD poses a slippery problem for the gardener: What is the best way to provide safe access and structural stability and make it an attractive part of the home landscape? Solutions aren't always immediately obvious; sometimes it takes living with the problem for a while to figure out what to do. Much depends on steepness, size, soil, climate, existing structures and impermeable sur-

Strategies for handling steep grades vary from garden to garden. Here are ideas from designers across the country.

faces, budget, and intended use. Large built structures such as walls and terraces can be expensive and require engineering and construction skills beyond the ability of most homeowners.

Despite the challenges, slopes present gardening opportunities that flat land can't match. Here are ideas from my own experience and that of other garden designers that may help you tackle gardening on an incline. For a list of recommended plants for slopes, see the website special linked to this article at www.ahs.org.

FINDING THE RIGHT PATH: MY GARDEN

My garden in Connecticut sits at the foot of a mountain. When my husband and I



moved there more than 20 years ago, I was armed with gardening books and eager to start making a garden. Deer trails following the contours of the forested mountain rising from the back yard showed the only places where you could walk, so I made paths there and gardens everywhere else. I was young and strong and went at it, ripping out unwanted honeysuckle, multiflora roses, poison ivy, tree stumps, and rocks—until I was left with a mat of aggressive weeds and chronic back trouble.

After a couple of years and considering my husband's question: "Why do you insist on making gardens on the steepest part of the slope?" it finally dawned on me that double-digging new beds as my garden books instructed and hauling compost up a mountainside that already had good soil were ridiculous activities, and that maybe the rocks—except for loose ones—should just stay where they were.

I started smothering the weeds with layers of newspaper and straw and planting into the crumbly compost they became in a few months, a patch at a time. Deep-rooted plants went where soil was deep, and shallow-rooted spreading plants covered the rocks.

The main deer path, which I had converted into a snaking grass path, divided the garden unattractively, was too angled to walk on comfortably, and required weekends spent weeding to maintain it. This time I hired someone else to rip out the grass path and replace it with a wide, irregular but level path of large random bluestone slabs interspersed with native rock. Three or four people can now comfortably walk or stand on the path, or sit on an easily carried folding chair. Edged with low, dense plantings, this meandering path—almost a terrace in places—is functional yet unobtrusive.

Along the way, I discovered other ways to make the garden more accessible, including installing a couple of low dry-laid retaining walls, stone ramps for wheelbarrow access that look like extensions of existing ledges, and short flights of stone steps—all offset from each other to prevent the formation of waterfalls when it rains. Because there are no long, straight, downhill runs and all the ground is covered by low-maintenance perennial plants and shredded bark mulch, erosion from water



Robert Welsch used stone steps, a tiny terrace, retaining wall, and switchback gravel path to enable visitors to enjoy a variety of container gardens and specimen plants in his sloping garden.

moving down the mountainside has never been a problem.

GOING WITH THE FLOW

A designer who strongly believes in working with what nature gives you, Robert Welsch of Westover Landscape Design lives and works on the steep-shouldered, densely populated eastern bank of the Hudson River in Tarrytown, New York. His house, which is perched

like an eagle's nest overlooking the river, sits on a lot that is less than an eighth of an acre and has a 60-foot elevation drop. The yard seems larger because he used different levels to hide garden "rooms" and walkways. Taking a design cue from nature, his mortared stone steps curve and cascade like a brook down from street level to a modest gravel terrace below the house that suggests a pool of water. Flanking the path are flowing

plantings of *Hakonechloa macra* 'Aureola', which continue the water motif.

According to Welsch, the biggest problem on most sloping sites is drainage. "You have to see how water moves through and manage it from upstream," he says. "Make sure curbing and gutters off the house are working properly and observe where water naturally channels." Where water runs off rather than sinking in, plants can't make use of it, and the moving water can undermine structures and erode soil.

Welsch addressed this by building a French drain to divert water across the top of his property. Created under dense plantings so that they are not visible, swales—depressed areas in the ground—now slow down the water's flow and direct the excess toward five hand-dug drywells—three-

taining walls. Welsch built switchbacks because "a long run of steps—I would have needed 100—would seem impossible to walk down safely without always looking at your feet." Pauses at landings along the way present opportunities to appreciate the subtle texture, forms, and color of groupings of rocks and succulents.

To lay out these paths, Welsch walked all over the slope to get the feel of the land. He followed natural contours as much as possible, using two 150-foot hoses to get the curves and width right. For a year, Welsch just stomped around on paths to compact the soil. He edged paths first with logs, then over time with stones, "to make the path explicit," adding stone landings and steps set in mortar to make footing secure, and lay-



Robert Welsch's company, Westover Landscape Design, turned a steep drop into an easy stroll in this Westchester County, New York, yard by installing grass ramps and stone steps.

four-foot diameter, six-foot-deep, rubble-filled pits that catch excess water.

Land beyond the terrace's shrub-lined outer edge gives way to a spectacular river view, dropping out of sight without giving a clue to the existence of the delightful collector's garden and carved-out seating areas below. A sloping gravel path to one side exits this intimate space, disappearing behind the shrubs, where it begins to slice back and forth in 15-foot runs across the slope at the property's edge in a series of switchbacks and short mortared stone re-

ing down landscape fabric and pebbles to finish walking surfaces.

The path loops across the face of the slope at a comfortable angle near the narrow lower end of the lot and goes back up the other side in a quick, straight run of gravel ramps and railroad tie steps, becoming an access path almost hidden by shrubs. The extra-steep space enclosed by these paths is filled with tough perennials such as daylilies and ornamental grasses that require little maintenance and stabilize the soil. At the bottom of the slope, he

Resources

Covering Ground by Barbara Ellis. Storey Publishing, North Adams, Massachusetts, 2007.

Landscaping with Stone by Pat Sagui. Creative Homeowner, Upper Saddle River, New Jersey, 2009.

Plant-Driven Design by Scott and Lauren Springer Ogden. Timber Press, Portland, Oregon, 2008.

Sunset Hillside Landscaping (2nd ed.) by Sunset editors. Oxmoor House, Birmingham, Alabama, 2007.

dug out small sunken terraces and a place for a tool shed, reinforcing the uphill sides with deceptively simple railroad tie retaining walls; Welsch values these on steep slopes, where water-soaked soil exerts tremendous pressure on built structures. Irrigation lines were installed along property lines, so hoses don't have to be dragged down the hill, making garden maintenance both safer and less tedious.

TERRACING WITH WIDE STEPS

Stomping around for a year isn't an option when designing for a client, but trial and error and observing the worst rainstorms are still essential. In one of Welsch's projects for a Westchester County, New York, home built atop stone outcrops, there was space for a lawn at the bottom of the property, at street level, but no way to get there from the house. He calculated that a comfortable descent from the terraced formal stroll garden he built at basement level to the lawn down below would require 12 steps over a 30- to 35-foot run. Construction equipment could enter the property from the street below, so Welsch started landscaping at the top and progressed down the grade. He divided the 20-foot-wide steps into sets of three steps separated by turf runs. Driving to the site in a torrential downpour, he arrived just in time to see his first attempt wash out.

So Welsch ripped up the top landing and installed perforated drainage pipes in a bed of gravel, which took care of runoff from the many paved surfaces uphill.



Above: Colorful but tough mounding plants spread to stabilize the slope above Lauren Springer Ogden's former home in the Colorado foothills. Right: In the fall, the slope takes on a completely different color palette with dried grasses and small conifers.

Extra-wide 18-inch treads and slightly pitched (two to four percent) turf steps—“steep enough to shed water but not uncomfortable if you have high heels and a cocktail in your hand”—make the transition with grace. Stones set in concrete edge the grass and stone steps and hand-placed ed boulders retain soil and make beds for a variety of bulbs and perennials.

PLANTING FOR STABILITY

Lauren Springer Ogden looked to plants to halt erosion in her former Rocky Mountain foothills garden. When the house site was leveled, construction equipment left a 250-foot-long gash running 20 feet up the adjacent hill, with bare soil just waiting to wash down into the small flat yard below. Stabilizing such a large, steep slope with stone walls and terraces would have taken an enormous amount of time, strength, and money. For Ogden, design partner and co-author of the recent book *Plant-Driven Design* (Timber Press, 2008) with

husband Scott, the best solution was straightforward. “I like to look at what you can do with just planting,” she says.

What she did was “leave it alone and slam in a bunch of little plants that grow sideways quickly.” This was easier said than done. The high-elevation site was open to fierce sun and winds. Sticky clay soil that was sopping wet with snowmelt in spring turned into dry hardpan in summer. Seeking plants that would grow in those conditions, Ogden turned to tough clay-tolerant Old World plants such as *Cerastium candidissimum* (“a great stabilizer, it’s bossy and it runs”), grasses, montane native perennials and shrubs, mats of “semi-rock garden plants but bigger and easier,” and a variety of conifers, including common prostrate junipers.

Fall planting turned out to be a mistake, for plants weren’t established enough to withstand winter storms. Spring planting had to be done after the soil dried out but before summer drought. Ogden used no





In this sloping seaside garden near Los Angeles, California, garden designer Lew Whitney used bold, bright plants for a tropical feel. *Aloe striata*, agaves, and California fan palms (*Washingtonia filifera*) rise from sweeps of ground-hugging blue-green *Senecio mandraliscae* and pink-flowered *Drosanthemum floribundum*, with crown of thorns (*Euphorbia milii*) providing occasional bursts of red.

soil amendments and minimal digging to prevent further destabilization. She spaced plants closely so they would fill in fast. Wind and gravity ruled out mulch. Overhead irrigation was limited to a spray twice a month during the growing season if needed. Spring cleanup was done while the ground was still frozen, weeding and dead-heading in one midsummer marathon to avoid disturbing the slope. Designed to be viewed from the house, Ogden's problem site became a richly varied garden full of tough perennials that changed with the seasons and harmonized with the native landscape beyond.

BOLD PLANTS FOR A SEASIDE SLOPE

A different palette of plants was in order for a sloping oceanside garden near Los Angeles designed by Lew Whitney of Rogers Gardens in Newport Beach, California. To make the garden accessible, Whitney built zig-zagging mortared stone steps with very small retaining walls where

he had to cut into the slope, creating a long but comfortable walk. The nearly vertical bottom part features a wooden ladderlike stairway built on top of the ground that descends to the beach.

Eye-popping color and dramatic plant forms in diverse, tropical-looking compositions cover all that is not hardscape. The stable sandy loam was cleared of existing sparse vegetation and covered with jute fabric to provide anchorage for new plants. For an instant effect, the slope was closely planted all at once with species that tolerate winter wind, salt spray from the ocean, and baking sun. Low-volume spray heads that emitted as little water as possible over a long time provided the plants with moisture until they were established.

Choosing drought-resistant plants for slopes, Whitney notes, is especially important because “you don't want to pour on a lot of water and get runoff.” For erosion control, Whitney recommends the prostrate rosemary ‘Irene’—it is “attractive,

grows fast, is bulletproof, and it blooms”—and *Drosanthemum floribundum*, a pink-flowering ice plant with a draping habit.

LESSONS LEARNED

It's definitely more difficult to garden on a slope, but the rewards can more than offset the challenges. While each of the gardeners in this article used a different combination of strategies to address the problem of a steep grade, achieving success often depends on trial and error and adapting to what nature hands you. In my own garden, I still hop from rock to rock like a mountain goat wearing hiking boots when working, but now I work less and spend more time just enjoying the view. 🌿

Karen Bussolini is photographer and coauthor, with JoAnn Gardner, of Elegant Silvers (Timber Press, 2005). Her most recent book project, a collaboration with author Penelope O'Sullivan, is The Homeowner's Complete Tree & Shrub Handbook (Storey, 2007).

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THE FEAST has begun at Powell Gardens in Kansas City, Missouri. The botanic garden's expansive new Heartland Harvest Garden, an elegant, 12-acre landscape devoted to all things edible, opened in June. Powell Gardens calls the sweeping, imaginatively designed space "the nation's largest edible landscape," and if you have ever been impressed by a well-tended vegetable garden's neat rows of beans, ruffled round cabbages, or golden tassels of corn, you have an idea, on a very small scale, of the impact of the Heartland Harvest Garden.

Here, on the edge of the prairie but not far from the lights of the city, is a gigantic potager like you've never seen before. Fruit trees planted in spirals redefine the concept of an orchard. Food crops flourish everywhere—along winding paths, in strict geometric layouts, and in the cozy confines of flower pots of all sizes.

This new garden has been in the works for some time. Eric Tschanz, the director of Powell Gardens, first started playing with the idea of an ornamental vegetable garden almost 10 years ago. The botanic garden worked with landscape architects

from Pittsburgh on the overall design, and Alan Branhagen, the garden's horticulturist and a landscape architect himself, filled it in with plants. The timing of the opening, in a year when food gardening's renaissance is heralded by the creation of a vegetable garden at the White House, could not have been more fortuitous.

"I wanted everything in the garden to tie in to food," Branhagen says. "From shade trees to annuals, it's all edible." His goals were simple: "The garden was designed to be beautiful, fun, educational, and tasty," he says.

Heartland Harvest

In Kansas City, a timely new garden demonstrating vegetable gardening on a grand scale has its roots in the past and its sights set on a new generation of gardeners.

BY MARTY ROSS

PHOTOGRAPHS BY JOHN MUTRUX



The Villandry Garden—inspired by a 16th-century French chateau garden—is a key attraction in the Heartland Harvest Garden.



A wide variety of fruits—including 'Reliance' peach—are grown in the garden's orchards.

PUTTING IT IN PERSPECTIVE

Major food crops have been part of the cultural and horticultural identity of the Midwest since the fertile tall-grass prairies were busted in the 19th century by hard-working homesteaders who cultivated wheat, oats, corn, barley, and many other crops to sustain themselves and a growing nation.

This Midwestern agricultural heritage was part of the inspiration for the Heartland Harvest Garden, but the garden takes food production beyond the comforting and profitable conformity of rigorous monocultural rows and elevates it into an art form. The garden is a flourishing illustration not only of the vital importance of plants, but of the complexities of soils and climatic conditions, the role of pollinators, and the all-around challenges, triumphs, and enormous satisfaction of growing your own food.

The intent of the garden is to reconnect visitors with the origins of food and to reintroduce them to the idea of growing some of their own food at home. The garden has opened just as gardeners everywhere are beginning to make room for tomatoes, cu-

cumbers, peppers, and more ambitious crops in their own flowerbeds—and even in pots on the stairs up to the front door. Vegetable gardening is hip and hot, and one of the lessons of the Heartland Harvest Garden is that you don't have to live in the country, dress in faded overalls, or



Powell horticulturist Alan Branhagen designed the plantings at the Heartland Harvest Garden.

The Heartland Harvest Garden is the newest and most ambitious expansion at Powell Gardens, located about 30 miles east of Kansas City in Kingsville, Missouri. Powell is a participant in the American Horticultural Society's Reciprocal Admissions Program, so admission is free for AHS members. For more information, visit www.powellgardens.org or call (816) 697-2600.

lay your corn out in 50-foot rows to have the great pleasure of growing your own vegetables and fruits.

AN APPETIZING ENTRANCE

The path into the Heartland Harvest Garden from the Powell Gardens' visitors' center leads into a pretty little four-square garden meant to whet guests' appetites for the feast in the edible landscape beyond. This small garden, enclosed on three sides by a magnificent six-foot wattle fence, captures the sense and sensibilities of the garden: kitchen-garden crops are artfully arranged and grown to perfection. Branhagen designed this garden in a blue and gold palette, planting plums, pawpaws, yellow sweet cherries, blueberries, calendulas, tomatoes, lettuces, and kale. The annual crops will change, but the color scheme remains the same through the seasons.

From their arrival, visitors are confronted with the great temptation to pinch the parsley and basil, or snag a juicy plum from a low-hanging branch. To meet this overpowering need to sample—and to help visitors resist temptation—tasting stations throughout the garden give visitors a chance to try just-picked herbs, vegetables, and fruits.

The path next leads through a greenhouse; Branhagen and Tschanz wanted visitors to experience this to emphasize their "seed to plate" vision for the garden. The greenhouse is divided in two, one side for seed starting and the other for tropical plants. Seeds will be started here under glass year round. An astonishing variety of food crops are hardy in the Midwest, but Tschanz and Branhagen didn't want to ex-

clude tropicals, so avocados, clementines, mangos, olives, sugar cane, and pistachios are among the tender plants displayed in pots on the grounds through the summer, and moved into the greenhouse in winter.

DOING IT RIGHT

For most crops, a greenhouse isn't really necessary. Neither are synthetic fertilizers and pesticides. "We have taken on the goal of making a completely organic garden," Tschanz says. "We may not have perfect apples, but we feel we can have the production we need."

Matt Bunch, horticulturist in charge of the day-to-day operation of the garden, and Barbara Fetchenhier, the garden's expert in charge of fruit and nut crops, are both long-time, enthusiastic, and committed organic gardeners who felt strong-



Chief horticulturist Matt Bunch harvests seeds from safflower (*Carthamus tinctorius*) in the Menu Garden.

ly about the decision to make the Heartland Harvest Garden organic.

Throughout the garden, the soil has been amended with compost. And, just like home gardeners, the horticulturists here measure organic fertilizers by the trowelful as they plant, and supplement with sea kelp and other organic amendments during the growing season. When they need to use pest controls, they stick with products approved by the Organic Materials Review Institute (OMRI).

"It's not going to be easy," Branhagen says, "but we're ready."



STRENGTH IN NUMBERS

More than 2,000 varieties of edible plants grow in this vast garden. Fifty-four apple varieties were planted along the spiraling paths of the apple court. "It's everything in Stark's catalog," Branhagen says, and then some. Standard apples grow on the outer ring and columnar apples stand like sentries at the center; the apples are arranged in order of bloom and harvest, from 'Lodi', which ripens in June in Kansas City, to 'Granny Smith', one of the last to be harvested.

The garden's vineyard is planted with 50 varieties of grapes; 45 peach cultivars planted in another spiral beyond the apple court ripen from June through September. Other tree fruits include 20 different plums, 17 Asian pears, and 18 European pears. The intention is not to overwhelm

visitors, but to emphasize the choices available: there are fruits and vegetables for every taste and every garden—grapes for juice, jam, and wine; eating apples, pie apples, cider apples. Here is the real-world context you miss if the only apples you've ever plucked were from a grocery store.

To encourage pollinators and beneficial insects—and thus healthy growth and a robust harvest—every crop is planted with companion plants. Branhagen turned to Louise Riotte's classic *Carrots Love Tomatoes and Roses Love Garlic* for ideas. Hysop, blackberries, and persimmons grow near the grapes. Mint and beebalm (*Monarda* sp.) grow with the pear trees.

The results are stunning. Early this summer, the purple heads of chives bobbed around the base of young trees in the apple court. Chives improve apple



trees' health and help prevent apple scab, according to Riotte. Generous wands of purple hyssop, which help increase the yield of grapes, bloomed in the vineyard in June. Branhagen's research turned up endless felicitous combinations that are both attractive and hard-working.

INSPIRED BY VILLANDRY

At the heart of the garden are four three-quarter-acre gardens designed as enormous traditional quilt squares, each planted with food crops and their companions. A "Missouri Star" quilt block is laid out with crabapples, jujubes, pawpaws, peaches, apples, and other orchard fruit. Barley, corn, cotton, peanuts, milo, wheat, and other farm crops fill in the pattern of an "Old Missouri" quilt block; the "Kansas Star" quilt square is planted

with alfalfa, clover, range grasses, and other forage crops, in crisp lines that delineate the sparkling star design in a way no frontier grandmother ever imagined when she sat at her sewing table, cutting up calico scraps to piece her quilts.

The true star in the gigantic quilt is the fourth square, unabashedly called the Villandry quilt, because it is inspired by perhaps the most famous potager of all, the nine-square garden at Villandry, a 16th-century French chateau. In Powell Gardens' interpretation, the four large blocks of this quilt square are given over to heirloom vegetables, tomatoes, basil, and appropriate companion plants. It is formal but fun, a delightfully bold stroke of cultural and horticultural choreography that combines Renaissance ideas with Midwestern sensibilities.

Top, background: A profusion of vegetables, planted in geometric beds that resemble the patterns of a quilt, mature in the summer sun. **Above:** Planted with forage crops, the patterns in the 'Kansas Star' garden are most apparent when viewed from an elevated observation point.

PLANTING A SEED FOR THE NEXT GENERATION

Kids don't need much encouragement to race around the winding pathways in the new Heartland Harvest Garden's apple court and peach spiral, or to sniff and sample herbs at the garden's tasting stations: there is much to interest children here. But Powell Gardens is making a special effort to reach out to kids, parents, teachers, scouts and scoutmasters, and homeschool students with the Heartland Harvest Garden's Fun Foods Farm, where kids will be encouraged to play, plant, and learn.

While kids are tasting bramble berries in the farm's tutti-frutti maze, digging for earthworms, planting tomatoes, splashing in a millstone fountain, or drawing water from a

pump, they're learning where food comes from, experiencing something of the life cycle of plants, discovering the relationship between healthy soil and healthy plants, and learning about water conservation.

During a visit to the Fun Foods Farm, children will be able to plant seeds, pick produce, and taste new foods. The kids' area is designed for fun, but the real seeds being planted here are those of a new generation of gardeners who will grow up with respect for the envi-

ronment, aware of the importance of plants in our lives, and the delicious taste and nutritious value of home-grown produce.

—M.R.



A Powell Gardens staff member helps a young visitor plant tomato seedlings.



“We’re not going to say it’s bigger or better than Villandry,” Tschanz says, “but it is inspired by Villandry—and we think they would themselves be inspired by us.”

HEARTLAND AMBASSADORS

Two of the strongest voices of support for this new garden are those of Rosalind Creasy, an author and gardener who has championed the aesthetic delights of vegetable gardening for almost 40 years, and Barbara Damrosch, whose *Garden Primer*, first published in 1988, has just been revised in a new, all-organic edition. Damrosch and her husband, Eliot Coleman, are market gardeners and the owners of Four Season Farm in Maine; Creasy is a designer, gardener, and author of the *Complete Book of Edible Landscaping*, first published in 1982, with a revised edition to be published next year. Creasy and Damrosch are guest gardeners at the Heartland Harvest Garden; they each designed beautiful working vegetable gardens to demonstrate to visitors their visions of growing your own.

Creasy, who has a vegetable garden and a chicken coop right in her front yard in California, is a tireless ambassador for ornamental vegetable gardening: she claims she has influenced neighbors, kids, and even her FedEx delivery man to grow and eat their own vegetables.

“Our culture pushes vegetables to the side of the plate,” says Creasy. She has done her part to change that, and her colorful garden at the Heartland Harvest Garden, which visitors enter through two enormous, free-standing barn doors, shows just how much food can be grown, and beautifully, in 1,000 square feet.

Damrosch's plot at the Heartland Harvest Garden is significantly larger—about 4,000 square feet—and is designed to grow enough produce to supply a family of four year-round. She made a few concessions here in a public garden—making the paths a little wider than she would in a home garden, for example—but held fast to the idea that a properly planned succession of crops will produce an ample harvest without demanding a frenzy of planting in spring and a frantic round of canning and freezing in the fall.

Rosalind Creasy's plot demonstrates that vegetable gardens can be practical as well as ornamental without sacrificing productivity.



Above: A movable greenhouse in the garden of author Barbara Damrosch, left, shows visitors how to extend the growing season for a variety of tender vegetables.

True appreciation of the changing seasons “is our privilege as gardeners,” Damrosch says. Real luxury is not expecting to be able to buy strawberries in October or asparagus in January, but “to have those things at the moment they are the most perfect,” fresh from the garden, she says.

To stretch the seasons ever so slightly, her garden includes an 18- by 20-foot greenhouse on rails that slides back and forth over the beds to allow the gardeners to protect fall crops from hard frosts well into the winter, and to start tender crops very early in spring. Damrosch’s garden also includes smaller cold frames for winter lettuce, carrots, and other crops, to show gardeners a small-scale version of the techniques she and Coleman rely on for winter crops in their garden in Maine.

“There is this mindset that vegetable gardens are for summer, like a summer romance,” Damrosch says, “then everyone goes back to their jobs and the supermar-

ket. But if we can do this in Maine, you can do it anywhere.”

COMING TOGETHER

The experience of growing your own food and the pleasure of sharing the harvest has suddenly become big news. The Slow Food organization, the thoughtful writings of Michael Pollan in his *Omnivore’s Dilemma* and *In Defense of Food*, and many other advocates, have carried the banner of the back-to-food movement all the way to the White House, where, earlier this year, First Lady Michelle Obama pulled on a pair of boots and helped schoolchildren plant a vegetable garden on the South Lawn.

Small truck farms, thriving farmer’s markets, and Community Supported Agriculture co-ops now deliver the freshest local produce to the doorsteps of city dwellers, inspiring a new generation of gardeners to try their hand growing both heirloom varieties and the latest hybrids, without compromising the environment.

The Heartland Harvest Garden, growing where the buffalo once roamed, is putting food gardening back on the table—right in the middle of the plate. ☪

Marty Ross is an award-winning journalist and garden columnist. She grows edibles in her gardens in Kansas City, Missouri, and Hayes, Virginia.

POWELL’S PICKS

Alan Branhagen, horticulturist at Powell Gardens, describes Kansas City’s USDA Hardiness Zone 5-6 / AHS Heat Zone 7 climate as one of extremes. Summers are very hot, with daytime temperatures typically in the 90s, and not much relief at night. Winters are cold, windy, and without reliable snow cover. Wild temperature swings in spring, especially, can coax plants out of dormancy only to expose them to hard, killing frosts. The area gets about 35 inches of rain a year. The region’s clay soil is rich in minerals but a challenge to work. In short, it’s a great place to develop gardening skills, and to get to know plants of all kinds.

Here are some of the favorite crops of the gardeners at Powell Gardens:

Small fruit trees:

- ‘Nikita’s Gift’ persimmon is a hybrid with large, delicious fruit.
- ‘Northstar’ pie cherry produces a big harvest from a small tree.
- ‘Harrow Diamond’ peach is hardy and especially tasty.

Berries:

- ‘Apache’ thornless blackberry has huge sweet berries, and supplies early nectar for honeybees.
- ‘Chandler’ and ‘Nelson’ highbush blueberries are both tall-growing bushes with very large berries.

Grapes:

- ‘Cynthiana’ (‘Norton’) is an American wine grape, Missouri’s state grape.
- ‘Purpurea’ grape has dark purple foliage and fruit.

Vegetables:

- ‘Gina Romano’ bush bean is sweet and crisp and resists disease well.
- ‘Ping Tung’ Asian eggplant has 15-inch-long fruits that are never bitter.
- ‘Jimmy Nardello’ pepper is smoky-sweet, great for frying or salads.
- ‘Waltham’ butternut squash is an All-America Selections winner; plants bear up to 10 squash that keep well.
- Heirloom tomatoes: ‘Carbon’, with dark skin, is great for tomato sauce; ‘Cherokee Purple’ is a sweet tomato with a hint of spice.

—M.R.



deciduous native Hollies

BY GIL NELSON

Even after shedding their leaves, these hollies shine in the fall and winter garden.

MENTION HOLLIES to most gardeners and they immediately conjure images of shiny, spiny, dark green leaves, a conical form, and bright red fruits glistening in the December sun. There is little doubt that the winter beauty of evergreen hollies strikes a chord with many plant lovers.

But evergreens are not the only hollies worthy of our attention. Deciduous hollies, too, can make dramatic statements in our gardens and landscapes. Unlike some deciduous plants, whose charm diminishes with their falling leaves, deciduous hollies come into their own in fall and winter, their branches festooned with showy fruits that, botanically speaking, are termed

drupes. As with their evergreen cousins, their brightly colored jewelry hangs on well into winter, providing birds and squirrels with a nutritious food source.

There are 11 species of deciduous hollies native to the United States and southeastern Canada. Some, such as winterberry (*Ilex verticillata*), have a very broad range. Others, such as Suwannee River holly (*I. curtissii*), are confined to a very localized habitat. All are dioecious, meaning that some plants are male and others female. To ensure optimal fruit production, gardeners need to plant both male and female selections. (For a brief description of the holly family and its origins, see the web special

linked to the online version of this article at www.ahs.org.)

WINTERBERRY

The most popular and widely grown native holly is winterberry (*I. verticillata*, USDA Hardiness Zones 3–9, AHS Heat Zones 9–1). A wetland species in nature, winterberry is found predominantly along streams and at the edges of bogs, pocosins, floodplains, and swampy woods from Canada to northernmost Florida and west to Louisiana. It is much more common in the northeast than the Deep South and is one of the hardier deciduous hollies. Nevertheless, it readily adapts to garden soils and at least some hardy selections perform

This is the first of a two-part series by Gil Nelson; evergreen native hollies will be featured in the November/December issue.



'Sparkleberry' holly, opposite, livens up the winter landscape with its brilliant red fruits. Winter Red®, above, is a popular winterberry cultivar with large red fruits that persist into late winter. 'Winter Gold', right, was developed from a Winter Red® plant that produced yellow fruits on a few branches.

equally well in more or less dry, sunny sites. I planted the cultivar Winter Red®—a New England favorite—in my drought-stressed, sun-drenched garden in Georgia, where it has fruited prolifically and doubled in size in only two years.

As its name suggests, winterberry's main attraction is its ascending branches bearing bright red fruits that begin to color in early fall, turn bright red by mid-December, and last much of the winter. The deep green leaves are about four inches long and two inches wide with an attractive quilted appearance and sharply toothed margins. In fall, these sometimes take on a burgundy-red cast before dropping. It grows six to 10 feet tall with a similar diameter.

Although species plants of winterberry can be difficult to find, numerous cultivars are available. Winter Red® is one of the best and most widely used. A large, rounded shrub that may take nearly 30 years to reach its maximum size, Winter Red® pro-



duces abundant three-eighth-inch-diameter, intensely red fruits that persist well into February. 'Southern Gentleman' blooms at the same time as Winter Red® and is its best male pollinator.

Other excellent winterberry selections include the red-fruited 'Red Sprite', 'Sunset', and 'Bright Horizon'—all of which have larger fruit than Winter Red®. 'Red Sprite' is more compact than Winter Red®,

with a mature height and width of about four feet. It also blooms slightly earlier, making the early-flowering 'Jim Dandy' a good pollinator. 'Red Sprite' is considered best for USDA Zone 8 and northward, but it performs well for me in my functionally Zone 9 garden. There's also the yellow-fruited 'Winter Gold', which was selected from a single plant of Winter Red® that—through a "sport," or mutation—produced some branches with yellow fruits.

Winterberry also has been crossed with the Japanese species *I. serrata* to produce several large, robust hybrids, including *Ilex* 'Sparkleberry' (Zones 5–9, 9–5). At Callaway Gardens near Pine Mountain, Georgia—which has one of the best holly collections in the country—it is used to stunning effect. "We've had great success with 'Sparkleberry'," says Hank Bruno, director of horticulture at Callaway, "which fruits heavily with 'Apollo' as the pollinator. It dominates the winter landscape and needs some pruning to keep it in bounds." A hybrid bred specifically as a consort for 'Sparkleberry', 'Apollo' grows to 12 feet tall and wide if left unpruned.

POSSUMHAW

Native to moist habitats from the mid-Atlantic west through Indiana to Kansas and south to Texas and the Gulf Coast, possumhaw holly (*I. decidua*, Zones 5–9, 9–1) is another prolifically fruiting species that is widely grown. Like some other deciduous hollies, the leaves of possumhaw are sometimes closely set at the end of short, stubby shoots, which make them appear opposite or whorled. Possumhaw produces flowers and fruits as a suckering shrub, but it will develop into a small tree if left to its own devices. In the

wild, mature plants may reach 30 feet tall with an attractive leaning or arching form. It grows best in moist, organic-rich soil in full sun but will tolerate part shade.

'Warren's Red', an abundantly fruiting female selection with an upright habit, has become the favorite cultivar in southern gardens. Its leaves are slightly wider and darker green than those of the species and turn yellowish before falling.



Selections of possumhaw holly can either be multistemmed, such as ‘Warren’s Red’, left, or develop a single trunk, like ‘Council Fire’, above, usually does.

The leaves often persist into late fall and early winter—to the delight of some gardeners and the dismay of others. Ray Head, president of the Holly Society of America, is decidedly in the latter camp. “I prefer ‘Sentry’ and ‘Pocahontas’ over ‘Warren’s Red’ because they don’t sucker as much and they tend to defoliate earlier for a good display of visible fruit,” says Head. Pollinator species for this and other *I. decidua* cultivars include ‘Red Escort’, as well as the evergreen American holly (*I. opaca*).

As Head suggests, several other red-fruited female selections of *I. decidua*—including ‘Council Fire’, ‘Sentry’, ‘Red Cascade’, and ‘Pocahontas’—are also worthy cultivars. ‘Council Fire’ and ‘Pocahontas’ are dainty trees that mature to about 15 feet tall and usually have a single trunk, erect stature, and a rounded crown similar in form to some hawthorns (*Crataegus* spp.). Both of these selections are northern forms that perform best north of USDA Zone 9. ‘Red Cascade’ is noted for its large fruit and ‘Sentry’ for its narrow, more or less columnar crown. ‘Sentry’ typically loses its leaves early in the season, retains its fruit throughout the winter, and can rival winterberry in fruit display.

Yellow-fruited forms include ‘Byers Golden’, introduced by Byer’s Nursery of

Huntsville, Alabama, and ‘Finch’s Golden’, also discovered in Alabama and named for environmental writer and naturalist Bill Finch. The advantage of yellow-fruited selections is that they tend to hang longer on the hollies, perhaps because they are not as visible to birds.

BEST OF THE REST

Of the other nine native deciduous hollies, only six are available in the trade. For the most part, these species are confined to public gardens and those of avid holly enthusiasts. “We propagate several species of deciduous hollies from seed and cutting, but only on a small scale, because we are not aware of a profitable market,” says Charles Webb of Superior

Trees, a wholesale nursery near Madison, Florida, that has specialized in growing native plants for many years. Based on my own experience, many of these hollies have excellent garden potential and should be more widely used. Superior Trees’ retail partner, Mail Order Natives, and Woodlanders (see “Sources,” far right), offer some of the more difficult-to-find forms.

Suwannee River holly (*I. curtissii*, Zones 7–10, 10–7), native only in a small area of northern Florida, tends to grow naturally in thin, nearly neutral soils over limestone. Some experts believe it to be a variety of *I. decidua*; others feel it constitutes a distinct species. It is distinguished from typical possumhaw by having short-

HOLLY SOCIETY OF AMERICA

Holly fanciers will find lots to learn from the Holly Society of America (HSA). Founded in 1947, HSA serves as the official registration authority for holly cultivars and a resource for both native and non-native hollies. Among the HSA’s activities is an annual meeting, held in the fall to ensure plenty of fruit-laden plants can be seen on the field trips, plant displays, and garden tours. An annual plant auction includes hard-to-find hollies donated by HSA members. The 61st annual meeting will be held October 29 to November 1, 2009, at Vineyard Haven on Martha’s Vineyard, Massachusetts. The society’s website (www.hollysocam.org) includes helpful listings of arboreta that have holly collections and retail nurseries that specialize in hollies. —G.N.

er, narrower leaves that typically do not exceed two inches long and five-eighth-inch wide. According to Ray Head, Suwannee River holly blooms later than possumhaw, which effectively reduces the likelihood of interspecies cross-pollination.

Swamp or sarvis holly (*I. amelanchier*, Zones 6–9, 10–6) is an upright shrub or very small tree that occurs mostly in standing water along slow-moving streams and in pocosins and wet upland depressions. In the wild it is now confined to scattered populations in the coastal plains of the Carolinas, Georgia, and the Florida panhandle.



Smooth winterberry produces large red fruits that are relished by many kinds of birds.

Swamp holly is one of the few deciduous hollies in the coastal plains that has colorful fall foliage. The leaves turn pale yellow as the season progresses, forming an attractive contrast to the relatively large three-eighth-inch fruits. The fruit color of swamp holly is a dull red rather than the typical lustrous red of most species. Like many wetland plants, swamp holly adapts readily to the garden but will likely require a modicum of moisture for maximum health.

Smooth winterberry (*I. laevigata*, Zones 4–7, 7–4) is a mostly coastal plains species growing naturally in bogs, low woodlands, and acidic swamps. Its foliage is similar to common winterberry, but it produces fewer and more scattered fruits and its leaves often fade to a beautiful pale yellow in autumn. Mountain winterberry

(*I. montana*, Zones 5–7, 7–5) is another potentially tree-sized holly that can reach nearly 40 feet tall. It grows naturally only in the mountains and upper Piedmont of West Virginia, Virginia, the Carolinas, and northern Georgia, where it is common, but it is more difficult to find in nurseries.

The catberry (*I. mucronata*, Zones 3–6, 5–2), or mountain holly as it is sometimes called, is the newest member of the genus *Ilex*. Long classified as *Nemopanthus mucronatus*, it and the closely related long-stalked holly (*I. collina*) are now considered by most taxonomists to be clearly embedded within the

true hollies. Catberry is a cold-hardy, northern species that occurs naturally in boreal bogs, swamps, and on mountain slopes from Ontario and Newfoundland south to Minnesota, Ohio, Indiana, Maryland, and the mountains of West Virginia. The dull red, velvety fruits are borne on relatively long, conspicuous stalks. Unlike other deciduous hollies, catberry fruits appear during summer rather than winter. This species is not widely available, but should definitely be sought out by New England gardeners.

A HOLLY WITH POTENTIAL

As the popularity of deciduous hollies increases, gardeners can expect more species and selections to enter the market. One likely candidate is the sand or Carolina holly (*I. ambigua*, Zones 7–10, 10–7),

Sources

Arborvillage Farm Nursery, Holt, MO. (816) 264-3911. www.arborvillage11c.com.

Fairweather Gardens, Greenwich, NJ. (856) 451-6261. www.fairweathergardens.com.

Forestfarm, Williams, OR. (541) 846-7269. www.forestfarm.com.

Girard Nurseries, Geneva, OH. (440) 466-2881. www.girardnurseries.com.

Mail Order Natives, Lee, FL. (850) 973-6830. www.mailordernatives.com.

TNZ Nursery, Louisville, KY. (502) 836-6908. www.tnz.us.

Woodlanders, Aiken, SC. (803) 648-7522. www.woodlanders.net.

Resources

Most of the following resources are available from the Holly Society of America (www.hollysocam.org).

Florida's Best Native Landscape Plants by Gil Nelson. University Press of Florida, Gainesville, Florida, 2003.

Hollies: A Gardener's Guide, Brooklyn Botanic Garden, published in cooperation with the Holly Society of America, 1993.

Hollies for Gardeners by Christopher Bailes. Timber Press, Portland, Oregon, 2006.

Hollies for the Landscape in the Southeast by Ken Tilt, David Williams, Willard Witte, and Mary Kathryn Gaylor. Alabama Cooperative Extension Service, Circular ANR-837.

Hollies: The Genus Ilex by Fred C. Galle. Timber Press, Portland, Oregon, 1997.

10–7), which now enjoys only limited availability but is being investigated by breeders. Growing to 20 feet tall, this very attractive shrub or small tree occurs naturally from North Carolina to central Florida and west to eastern Texas. Because it grows predominantly in sandy uplands and dry forests, it has excellent potential for xeric gardening. The leaves usually have bluntly toothed margins but vary widely in size, shape, and color. The shiny red fruits are about three-eighth-inch in diameter.

The inherent variability in this species makes it an excellent subject for experimentation. “Our planting puts on an attractive display of bright red fruit each year and has developed nicely during a several-year drought,” says Charles Webb of Superior Trees. “This holly is obviously well suited for planting on dry sites under shade of pines.”



The fruits of ‘Scarlett O’Hara’ winterberry steal the show in this fall border that includes Joe Pye weed (*Eupatorium* sp.), silver willow (*Salix alba* var. *sericea*), and elephant ear (*Alocasia* sp.).

The knock against *I. ambigua* is that it does not hold its fruit long enough into winter to be successful. It begins coloring earlier than some other species, however, and the fruits are very juicy, making them an excellent food source for birds.

HOLLIES IN THE LANDSCAPE

With the exceptions described above, most of the American deciduous hollies will thrive in a moist but free-draining site that has moderately fertile, slightly acidic, organic rich soil. All will grow best in full sun or part shade.

They are well suited to gardens in much of the eastern United States and southeastern Canada. West of the Rockies, winterberry and possumhaw cultivars and hybrids such as ‘Sparkleberry’ are also adaptable to gardens from the Pacific Northwest down into the coastal ranges of northern and central California (Sunset Zones A2, A3, 1–7).

For optimum pollination, the rule of thumb is to have at least one male plant for every 10 females. In *Native Trees, Shrubs & Vines* (Houghton Mifflin, 2002), author William Cullina recommends planting males within 50 feet of females for best results. To ensure that

you are selecting an appropriate male pollinator—and one whose bloom period will overlap that of the female selections you are planting—Cullina suggests checking with the nursery. Fred Galle’s holly book, listed on page 33, includes a helpful chart of bloom times for deciduous holly selections.

In general, deciduous hollies are most attractive when they are planted in masses to enhance the effect of their fall foliage and winter fruits. They are often used as screens or hedges, or planted along the edge of a woodland to provide food and cover for wildlife. Underplant with spring-blooming bulbs and shade-loving perennials.

To get maximum pleasure from their fall and winter display, plant deciduous hollies against a backdrop of evergreens in a site where they are visible from a window or patio. That way, you can enjoy the beauty of the fruits and the show of birds that will come to feed on them.

Gil Nelson is an author, photographer, and botanist based in Georgia. His next book, The Best Native Plants for Southern Gardens, is scheduled for release by University Press of Florida in 2010.



Although not yet widely available in the trade, sand or Carolina holly has shown potential because of its drought tolerance, attractive foliage, and early fruit display.

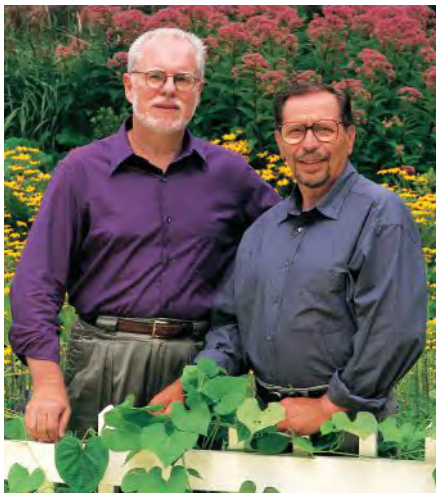
James van Sweden *and the New American Garden*

BY JANE BERGER

PHOTOGRAPHS BY ROGER FOLEY

LET'S TAKE A TRIP in a time machine back to Baltimore, Maryland, in the early 1960s. As we drive slowly down the lanes of a typical suburban enclave called Murray Hill, notice the grand street trees and colonial-style architecture with carefully manicured front yards and clipped evergreen foundation plantings. One property stands out from all the rest because it has no lawn.

Instead, there is a virtual stage between the curb and front door—alive, jostling,



and pirouetting with a *corps de ballet* of unusual plants. A clumping bamboo (*Fargesia nitida*) obscures the sharp corner of the house. A longstalk holly (*Ilex pedunculosa*) screens the dining room from the front walkway. Around back, a spacious blue-stone terrace, shaded by a huge Chinese fringe tree (*Chionanthus retusus*), overlooks a lily pool. A winding walkway takes you through seas of perennials and ornamental grasses punctuated by towering pines and a rare Franklin tree (*Franklinia alatama-*



The co-creator of the revolutionary bold, naturalistic approach to landscape design continues to inspire with his nontraditional and environmentally friendly style.

ha). It is the residence of avid gardeners Leo and Pauline Vollmer, and the birthplace of the New American Garden.

James van Sweden first saw the Vollmer garden in 1964. Fresh from earning a degree in architecture at the University of Michigan followed by studies in landscape architecture at the University of Delft in Holland, he had moved to Washington, D.C., to work for an urban planning firm. At the suggestion of a Dutch professor, he contacted Wolfgang Oehme, the Vollmer

garden's designer. As van Sweden has written, "I'll never forget the moment I walked through the back gate [of the Vollmer garden].... For the first time, I saw how the movement of plants could integrate space and discovered the rich possibilities of great contrasts in scale, color, and foliage...."

Fast forward to present-day Washington D.C. A former bank building on 8th Street SE, near Capitol Hill, serves as the headquarters of Oehme van Sweden (OVS) Landscape Architects. As you

The Leo and Pauline Vollmer garden, above right, led to a 35-year partnership between James van Sweden (left) and Wolfgang Oehme, above left.



enter the offices, several employees are seated at huge drafting tables. Along a hallway on the right is a small room filled with books where James van Sweden, one of the firm's founders, is reminiscing about his 35-year business partnership with Wolfgang Oehme.

He recalls that in the beginning, Oehme dispensed with formal landscape plans in favor of quick pencil sketches he used as a prelude to his instinctive, on-site, hands-on placement of plants. "Pauline Vollmer says she'd never seen such a terrible drawing," he says, "and it was so much money. And she said to her husband, 'Can we trust this guy?'"

FORGING A PARTNERSHIP

After their first meeting in Baltimore, several years went by before van Sweden called Oehme to ask for help in designing the small back yard of his urban townhouse. A hospitable host, van Sweden gave his many friends and neighbors ample opportunity to marvel at his striking, atypi-

Two well-known examples of the Oehme van Sweden New American Garden style are the Friendship Garden at the U.S. National Arboretum, top, and the Federal Reserve Garden, right, both in Washington, D.C.

cal landscape in the tony Georgetown section of Washington, D.C. The garden featured clumps of giant Chinese silvergrass (*Miscanthus sinensis*), a Chinese witch hazel (*Hamamelis mollis*), and even a weedy tree of heaven (*Ailanthus altissima*) that was retained to give the garden "a tropical quality." In no time, van Sweden had five clients of his own, so he phoned Oehme again to suggest they go into business together.

RADICALLY DIFFERENT, WILDLY POPULAR

The gardens were smash hits. The now-defunct *Washington Star* newspaper published a Sunday magazine in 1976 with an Oehme van Sweden garden on the cover and a 10-page spread inside. That same year, van Sweden got a call from David Lilly, a member of the Federal Reserve Board of Governors, asking them to re-design the building's grounds. "We were in a bedroom of my house, where the office



was,” says van Sweden. “Wolfgang was at the other end of the room drawing as I was at the desk. And I said, ‘Wolfgang, this is our big break. We’re going to lunch at the Federal Reserve, and you have to wear a tie.’” Oehme did wear a tie, but he also wore his Earth shoes, and Lilly later told van Sweden that when he saw the Earth shoes, he knew he had the right people.

Before it was finally approved, Lilly tangled with J. Carter Brown, the director of the National Gallery of Art and chairman of the powerful Fine Arts Commission, who objected to the OVS design for the Fed on the grounds that it was unlike a conventional landscape in the nation’s capital. Lilly’s response to Brown was, “That’s just the point.”

The Federal Reserve garden was a radical departure for tradition-minded Washington. Many Fed employees were unhappy about the garden’s cost and, like Brown, skeptical about the way it would look. So after a season of growth, van Sweden and Oehme gave a lecture to explain the design and planting concepts. Thirty people were expected; more than 400 showed up to applaud their new lunchtime Mecca and learn from the masters how they could do the same thing at home. It was the pair’s first encounter with an adoring public entranced by their gardening and design concepts.

SPREADING THE WORD

In 1990 the partners co-authored *Bold Romantic Gardens, The New World Landscapes of Oehme and van Sweden*. “It really put us on the map,” says van Sweden. The book outlined a new philosophy of gardening, with no synthetic pesticides, little fertilizer, and minimal need for water or maintenance. It included dramatic photographs of winter landscapes brimming with delicate seed heads and spiky yuccas rising out of the snow, all beiges, silvers, pale yellows, and greens. The book featured residential gardens with beautifully detailed hardscapes and plants that few American gardeners had previously encountered: sweetbay magnolia (*Magnolia virginiana*), American spikenard (*Aralia racemosa*), switch grass (*Panicum virgatum*), and Chinese stranvaesia (*Photinia davidiana* var. *undulata*).

After *Bold Romantic Gardens* was published, Oehme and van Sweden gained

HOME SWEET HOME—VAN SWEDEN STYLE



When James van Sweden gardens these days, it’s at his three-acre weekend retreat on Maryland’s Eastern shore. But there’s not much gardening required. Van Sweden planned the landscape as a typical OVS creation: no lawn, no pesticides, and no need for irrigation. Instead, there is a lily pond, a swimming pool, and two different meadows—a “designed” meadow near the house, and a “real” meadow beyond it.

The Chesapeake Bay’s water quality has deteriorated greatly in recent decades, mainly due to agricultural and urban runoff. Recognizing this, van Sweden designed his garden to serve as a filter that cleans the water before it runs into the bay.

On the site’s old soybean field, he let a natural meadow of grasses and flowers take hold. The “designed” meadow extends in arcs out from the house, with a wide mowed path separating it from the natural meadow. Van Sweden planted his favorites—including switch grass (*Panicum virgatum*) cultivars ‘Cloud Nine,’ ‘Northwind,’ ‘Shenandoah,’ and ‘Squaw’; river oats (*Chasmanthium latifolium*); and little bluestem (*Schizachyrium scoparium*),

which act as the “glue” that holds everything together. Perennials come up in different places to create a tapestry effect. Now, asters, great coneflower (*Rudbeckia maxima*), compass plant (*Silphium laciniatum*), and elecampane (*Inula racemosa* ‘Sonnenspeer’) are sowing themselves randomly—and “it’s absolutely beautiful,” he says.

Van Sweden says most residential gardens that OVS designs are “much more detailed and intricate,” both in hardscape and in planting design, than those they design for commercial clients. He advises homeowners who want to try an OVS style garden to first remove the lawn and then “take a chance” with plantings. You have to make sure you have the trees in the right place, he says, but then you can experiment. “The great thing about gardens,” he says, “is that you can change your mind and move perennials around.”

—J.B.



Van Sweden’s home garden by the Chesapeake Bay includes wild areas such a pond in the front yard, above, and more designed areas, top, closer to the house.

something akin to rock-star status in the landscape design world. Crowds of as many as 2,000 people began flocking to their lectures, eager to hear about the amazing new trend that was changing American gardening forever.

Soon, gardeners and designers across the country were talking about the New American Garden style. Van Sweden is not exactly sure how the term got firmly attached to OVS, but he credits the late Marc Cathey—a former president of the American Horticultural Society—who, in 1980 while director of the U.S. National Arboretum, asked van Sweden and Oehme to design gardens for the small visitor center. The back garden was called the “Friendship Garden” and the front garden the “New American Garden.”

The landscapes were typically OVS, plant-centric and “green” before the term sustainable was ever in use. According to architecture critic Benjamin Forgey, “this so-called New American Garden really was something new. It was really inventing a fresh approach to planting, and it was a re-invention of the American lawn... They were way out in front of the curve in environmental practices and implications.”

The two landscape architects upended thinking in the horticultural world as well. Author Rick Darke, an expert on ornamental grasses and native American plants, heard an OVS lecture in the early 1980s. When they started showing slides and talking about winter as a season, says Darke, “It knocked me out. I’d never seen anything like it before.” He was also stunned by the range of the native palette they used, which had “an emotional power” that Darke had only experienced before in personal encounters with natural, regional landscapes. “Although they used woody plants,” he says, “they also were great champions of the herbaceous layer with big bosquey stuff, things that were almost forestlike.”

A HANDS-ON APPROACH

As popular as they were with the public, Oehme and van Sweden were slighted in some ways by their own professional col-

leagues. Warren Byrd, former head of the landscape architecture program at the University of Virginia, says that many actually “looked down on the garden” as something not worthy of landscape architects. Byrd notes that although some regarded OVS as “revolutionaries,” they were probably dismissed by others. He believes the two have had a significant impact. “They extended the reach of landscape architecture beyond either a kind of refurbished beaux arts traditionalism or a kind of stripped down modernism and said there could be a new aesthetic that luxuriated in these plant combinations,” he says.

all now partners in OVS, who share the firm’s bent toward detailed architectural features and a comprehensive knowledge of plants.

INSPIRED DESIGN

Architect William McDonough, who has known and worked with scores of landscape architects, says one of van Sweden’s great strengths is that he understands “the poetry of the landscape.” McDonough asserts that van Sweden and Oehme changed the way that people think about landscape architecture because they created a unique, very painterly aesthetic that’s “almost like



While many of Oehme van Sweden designs have been on a sweeping scale, the firm also excels at more intimate spaces, such as this private garden in the Georgetown area of Washington, D.C.

Van Sweden himself recalls that when the firm was expanding, graduates of Harvard’s landscape architecture program would often stop by, only to quickly depart when they found out that they would have to work with plants. “I’d say, ‘We actually dig and get into the dirt’, and they couldn’t get out of here fast enough.”

Van Sweden eventually found some like-minded colleagues. In the late 1980s, he hired landscape architects Eric Groft, Sheila Brady, and Lisa Delplace,

the equivalent of Frank Gehry in architecture.” He says it’s a huge accomplishment that there’s now a garden style that’s identifiable as an Oehme van Sweden garden.

Van Sweden has always been aware of art and artists, but he says a three-week visit in 1987 with Brazilian artist and landscape designer Roberto Burle Marx “changed his life.” Van Sweden saw many of the bold, tropical gardens Burle Marx designed in the Rio de Janeiro area—intricate paving patterns for Copacabana Beach, 12-foot bouquets of ginger on the porches of Burle



The bold swaths of color in *Nature Abhors a Vacuum* by American artist Helen Frankenthaler, above, was the inspiration for James van Sweden's design for the Evening Island at the Chicago Botanic Garden in Illinois, right.



Marx's home, and centerpieces inside the house fashioned from plantains.

The visit inspired van Sweden to press ahead with the "art" of landscape design. A spirited plan for a garden in Connecticut originated from ballet, and one of his recent favorites, at the Chicago Botanic Garden, is patterned after a Helen Frankenthaler painting called *Nature Abhors a Vacuum*. The painting, explains van Sweden, embodies a vision of "color, energy, and grace" that could be a metaphor for the American meadow. "When I first saw this painting years ago," writes van Sweden, "I had been struck with the warm hues so like the russets and golds of our meadow-inspired landscapes and by its energy: the way masses of color swept across the canvas, melting into one another where they intersected. This controlled sensuality and passion struck me as identical to what I aim for in my own designs."

The Chicago garden's Great Basin and Evening Island took five years to design and build, and like all OVS projects, it was a painstaking collaborative effort among the OVS partners. Lisa Delplace spent three years researching plants that would be appropriate for the sculpted shoreline edges of the Great Basin; Sheila Brady visited the site with van Sweden to discuss design options for Evening Island. Plantings are intended to evoke natural Midwest landscapes; a serpentine bridge is based on van Sweden's

study of Japanese design; and there are private spaces where visitors can stop to appreciate nature. "Botanic gardens are really an interactive exhibit," says van Sweden, "and you want people to spend time regarding the spaces around them."

Other acclaimed OVS projects include: Francis Scott Key Park in Washington, D.C.; Nelson A. Rockefeller Park in New York City; the exterior planters on the parking garages at Reagan National Airport in Washington, D.C., that drew inspiration from the hanging gardens of



"Hanging gardens" soften the starkness of parking garages at Reagan National Airport.

Babylon; landscape architecture elements of the National World War II Memorial; and, in collaboration with partner Eric Groft, a redesign of the Federal Reserve Board gardens to incorporate new security and anti-terrorism features. They've designed hundreds of private gardens as well.

TRANSITIONING TO THE FUTURE

These days, van Sweden is winding down his involvement with the firm, which is now under the leadership of CEO Lisa Delplace. Van Sweden and Oehme agreed years ago that they would each leave the partnership at age 77. Oehme retired in 2007; Van Sweden, who has had health problems in recent years, plans to leave in about three years. He is busy writing his fifth book, this one about art and garden design, and working on the firm's landscape plan for a Buddhist temple in Texas.

Delplace, Brady, and Groft are taking the design lead on new projects, but consult regularly with van Sweden and Oehme. Oehme still does the initial review on planting, says Delplace, "and he always comes up with new plant combinations and new ideas."

Sheila Brady adds that OVS remains committed to van Sweden's insistence on a strong architectural pattern in every garden and using plants that are suitable for the regional ecology of the site.

As he reflects on the future, van Sweden says the firm will be a little different, but he's proud of the unique working relationship he established with Oehme. "Wolfgang and I never argued about anything except plant names," says van Sweden. "It was a partnership of genius." 🌿

Jane Berger is a Washington, D.C.-based garden designer and writer. She blogs at www.gardendesignonline.com.

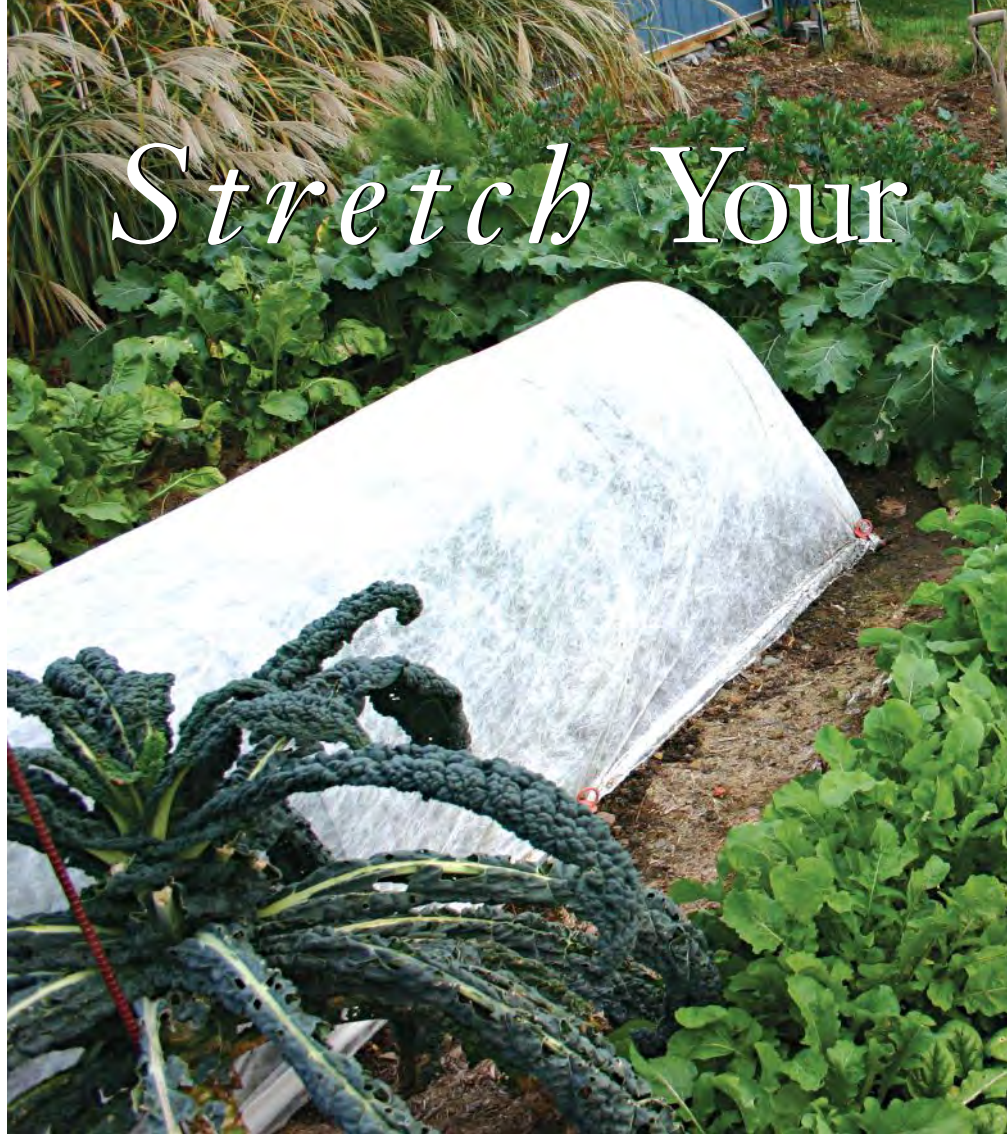


Push the limits on both ends of the gardening season by using row covers, cold frames, and other plant protection techniques.

BY KRIS WETHERBEE

DURING THE YEARS my husband and I were market gardeners, there was always an unspoken challenge to be the grower to produce the first ripe tomato or melon of the season. At times that took a bit of effort given the occasional late spring frost that would sneak up on us, or a sudden spring hail storm. At the other end of the growing calendar, an early, unexpected fall frost had the capacity to drastically shorten the harvest season. Even without crop-damaging temperatures, our chilly Pacific Northwest spring and autumn nights cooled things down to the point that crops were sometimes slow to ripen. We came to rely heavily on simple season extending strategies and plant protection devices to shield our crops from weather extremes and extend our growing season by weeks or months on both ends.

We are no longer market gardeners, but we've retained the desire to get a jumpstart on our garden fresh produce. And we still look forward to the early ar-



Stretch Your

rival of our first vine-ripened tomato. Although our kitchen garden has shrunk considerably, many of the season extending tools and techniques we used are still in place today.

GROUND RULES

Whether commercial or homemade, most plant cover-ups are designed to trap the sun's heat, thereby protecting plants from weather extremes while encouraging plant growth. The degree of protection and heat gain varies among the type of season extender and material used. For example, a plastic milk jug used to protect a seedling offers only a degree or two of protection at night. But an insulated cold frame with a framed double-pane glass lid can offer added nighttime warmth of up to 10 degrees or more.

On a sunny winter day, temperatures inside an airtight cold frame or other season-extending device can quickly climb above 100 degrees Fahrenheit. Excessive temperatures can be kept in check by

venting your setup so that excess heat can escape. Typically the vents should be closed by late afternoon to retain that heat gain throughout the night.

Season extenders not only help protect plants from cold temperatures, frost, and drying winds; they can also be used to start seeds, harden off plants, warm up the soil, grow cool-weather crops, speed up fruit production, protect and prolong blooms on fall-flowering plants, and extend the harvest season. Some can be used to help cool things down in southern climates, where hot weather gardening can be more of a challenge than chilly temperatures. A portable frame covered with lath strips or shade netting will help curb the heat around seeded beds, young transplants, and heat-sensitive flowers and vegetables.

INDIVIDUAL PLANT PROTECTORS

When you have only a few vulnerable plants to protect from a light frost, the simplest cover-up can often be found in-

Growing Season



to water-filled plastic tepees, such as Wall-O-Water and Teepee Kozy Coats. They speed germination and plant growth and protect young seedlings from low nighttime temperatures.

Each year, Montana gardener Sandra Perrin, author of *Organic Gardening in Cold Climates* (see “Resources,” page 43), reuses her Wall-O-Water tepees purchased more than 15 years ago to protect individual tomatoes, peppers, and eggplants. “I leave each one on until the plant is taller than the Wall-O-Water,” she says.

PLASTIC MULCHES

In our Pacific Northwest (USDA Hardiness Zone 7) climate, spring-sown seeds germinate slowly in the soil and seedlings are sluggish due to chilly rains and even colder nights. So we rely on plastic mulch to warm the soil and speed germination. As soil cools down in fall, plastic mulch can also hasten ripening of summer veggies such as tomatoes and peppers.

Depending on the color, plastic mulch can reflect, absorb, or transmit sunlight. But all types reduce surface evaporation and most suppress weeds.

Black plastic can warm soil temperatures from five to seven degrees Fahrenheit to a depth of two inches. Clear plastic heats up soil temperatures even more—up to 14 degrees—but its transparency allows weeds to grow beneath the plastic. Green plastic mulch is just as effective at warming the soil as clear mulch, but without the weed growth. Brown plastic warms the soil better than black and is a more effective weed deterrent than green plastic.

For maximum solar gain and weed control, infrared-transmitting mulch (IRT) combines the best of both clear plastic and black plastic, and is especially useful on early spring crops. The hot ticket for southern climates, however, is white-on-black plastic mulch. This relatively new mulch reflects most incoming radiation, so soil stays slightly cooler but weeds are still kept in check.

Regardless of the color, successful soil warming or cooling depends on how you install the plastic. Before laying the sheeting, install soaker hoses or a drip irrigation system in the bed. Stretch the plastic tightly over the soil surface to ensure good contact, then bury the edges so the



Top: Floating row covers, supported by hoops, protect late-season vegetables from chilly fall nights. **Above left:** Water-filled red plastic tepees insulate newly planted tomatoes. **Above right:** Plastic milk jugs with their bottoms removed protect individual seedlings from wind and cold.

side your own home, such as an old sheet or blanket, piece of burlap, bottomless cardboard box, coffee can with both ends removed, or the handy plastic gallon milk jug with the bottom cut out.

Commercial hotcaps work well when days are sunny and nights are clear. These individual plant covers act as miniature greenhouses by trapping heat from the sun. Designs vary from wax paper cones



Left: A black plastic mulch hastens the growth of sweet potato transplants by warming the soil. Above: Floating row covers can be used in both spring and fall to protect plants from frost.

plastic stays in place. Use scissors or a sharp knife to cut holes for planting.

FLOATING ROW COVERS

Made of spun polyester, polyethylene, or polypropylene, these fabric-type covers vary in weight, thickness, and degree of protection. They are also permeable to light, water, and air. Some only allow 50 percent light transmission and protect plants down to 24 degrees, while others allow up to 90 percent light transmission with frost protection down to 27 degrees.

Reemay® brand polyester is a garden staple for Riley Starks and Judy Olsen, whose three-acre garden in Lummi Island, Washington, supplies fresh organic produce for their restaurant at The Willows Inn. “It’s an absolute must, both for frost protection and keeping a layer of heat at ground level,” Starks says.

Floating row covers are also a mainstay for Montana gardener Perrin. The plant protectors are indispensable when it comes to extending her 120-day growing season, and are often used to cover newly seeded beds. The row cover speeds up germination by up to two weeks. “And it helps protect seeds and seedlings from the birds,” says Perrin.

To varying degrees, floating row covers protect tender seedlings and plants from damage caused by wind, rain, and pests. Depending on their weight, these fabric covers can be laid loosely to “float” over seeded beds and plants, or they can

be supported by stakes or hoops. The key is to keep the row cover on the seedlings for several weeks. To keep the wind from blowing your cover, bury the edges securely or hold them down with heavy rocks or bricks.

CLOCHES AND HOOP TUNNELS

Designed to protect garden beds and rows from single to wide, these simple, somewhat portable tent- or tunnelloike devices provide an inexpensive alternative to a greenhouse, and you can make them any height.

Frames can be made of wood, plastic, or metal. Simple frames can be made with bendable PVC pipe (half or three-quarter inch) or black polyethylene tubing (poly pipe) to form a series of semi-circles spaced five to 10 feet apart. An added length of pipe secured to hoops along the top center line will give the structure extra strength. Secure the ends by sliding pipe onto in-ground rebar or metal rods, or fasten to metal pipe clamps attached to the sides of a raised bed.

A variety of materials can be used to cover frames: plastic sheeting or green-

STRATEGIES FOR EXTREME-WEATHER GARDENING

In Alaska, where growing seasons are short and winters are cold, gardening requires a little extra effort. Anchorage gardener Jeff Lowenfels, author of *Teaming with Microbes: A Gardener's Guide to the Soil Food Web* (Timber Press, 2006) offers the following tips that can also be used in other cold regions:

- Take advantage of microclimates, such as a south-facing house wall. “Every rhubarb patch worth its compost is put in the area where the snow melts first,” Lowenfels quips.
- Use water as a heat source. Putting a hot water faucet outdoors, says Lowenfels, warms the soil up all season long.

■ Use water to protect and insulate plants from the cold. Paint plastic gallon jugs black, fill with water, and place them around plants, under floating row covers and hoop tunnels, and inside cold frames. The heat absorbed from the sun will provide added warmth for plants at night.

■ Make use of portable containers and hanging baskets that can be taken in at night and brought back outside during the day.

■ Choose varieties suited for your climate. Some varieties thrive in cool soil, and colder temperatures, tolerate low light conditions, mature earlier, or endure summer heat. —K.W.



Supported by concrete reinforcement wire, black plastic absorbs the sun's heat and reduces wind damage to cold-tolerant vegetables, extending the harvest well into winter.

house plastic, a row cover, or even shade cloth or bird netting. Garden clip fasteners work well for securing the covering to frames made from pipe or PVC. Ideally the system should be designed so that ends can be easily opened during the day and closed completely at night to retain heat.

Cloches are an important season extender for Starks and Olsen. Made of concrete slab wire, wood rails, and greenhouse plastic, Starks says the cloches are indispensable for growing tomatoes and peppers, both for early-maturing and for keeping blight-producing rain and dew off the

plants. "The cloches are raised as the plants grow, providing cover right until frost." These protective tunnels keep tomatoes going until the first hard frost, and allow for production of ample greens for most of the winter. "That's about three months gain for our heat-loving plants, and two months for greens," Starks adds.

COLD FRAMES

These bottomless boxes provide a favorable greenhouse environment for extending the growing season. In spring they are used to germinate seeds, grow and harden off transplants, and raise compact cool-season veggies to full size weeks before otherwise possible. Fall and winter uses go beyond growing cool-weather crops well past a hard frost; gardeners also use them to store root vegetables and chill bulbs for forcing.

The base can be made of wood, brick, cement or concrete blocks, straw bales, or a wood frame fitted with polycarbonate panels or foam insulating board. Top the base with a hinged transparent lid, typically framed in wood. Glass works well but is heavy and can break. Lightweight options include Plexiglas, polyethylene film, or a double layer of clear plastic sheeting. Be sure to prop the lid open on sunny days, or install an automatic frame opener to help regulate the inside temperature.



Cold frames are ideal for starting plants from seed or hardening off young plants.

Sources

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

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

Johnny's Selected Seeds, Winslow, ME.
www.johnnyseeds.com.

Planet Natural, Inc., Bozeman, MT.
www.planetnatural.com.

Resources

Building & Using Cold Frames by Charles Siegchrist. Storey Publishing, North Adams, Massachusetts, 1997.

Cold-Climate Gardening by Lewis Hill. Storey Publishing, North Adams, Massachusetts, 1987.

Extend Your Garden Season by Fred Stetson. Storey Publishing, North Adams, Massachusetts, 1996.

Organic Gardening in Cold Climates by Sandra Perrin. Mountain Press Publishing Company, Missoula, Montana, 2002.

Ideally you should locate the box with the lid slanting towards a southern or southeastern exposure. Reduce your heat loss in winter by covering the lid with a blanket on cold nights and/or lining the inside with insulation board. Or turn up the heat by converting your cold frame into a "hot bed" by replacing some of the soil inside the frame with about four inches of fresh manure, topped with several inches of soil. The manure will produce heat as it decomposes.

Thanks to these season-extending products and techniques, gardeners can put vegetables, tender perennials, and other prized plants in the garden earlier in spring and keep them going long past what Mother Nature would normally allow, making the extra effort well worth it. ☺

Kris Wetherbee uses a variety of season-extending techniques in her Oregon garden.

Antonia Adezio: Leader in Garden Preservation

by Amanda Griesser

WHEN SHE WAS asked to serve as the organization's executive director 20 years ago, Antonia Adezio, president of the Garden Conservancy, had limited experience in horticulture. Her first career, in fact, was as a professional pianist. Adezio's introduction to public gardening came in the 1980s, when she worked as director of development at Wave Hill in New York. There, she met Frank Cabot, founder of the fledgling Garden Conservancy, who offered her the position of executive director. Cabot created the non-profit preservation organization after visiting the stunning Ruth Bancroft Garden in Walnut Creek, California, and learning it would soon be without a full-time caretaker.



The Garden Conservancy (www.gardenconservancy.org), based in Cold Spring, New York, saves and preserves some of America's most diverse and treasured gardens. It accomplishes its mission by providing resources, ranging from consulting to—in dire cases—emergency garden rescue. Since its founding, the Garden Conservancy has assisted in the preservation of more than 90 gardens and oversees 16 preservation projects of special note, including the Ruth Bancroft Garden, the Elizabeth Lawrence Garden in Charlotte, North Carolina, and Peckerwood Gardens in Hempstead, Texas.

Editorial Intern Amanda Griesser spoke with Adezio about the Garden Conservancy's work over the past 20 years, lessons in preservation, and the future of American gardens.

Amanda Griesser: Does the Garden Conservancy's preservation philosophy dictate that you strive to maintain the original design of a garden or update it as you see fit?

Antonia Adezio: There's no simple answer; it's something we talk about all the time because gardens are so dynamic. We like to work with living gardeners and help them perpetuate their legacy. With the newer gardens, I think our biggest challenge is finding a person or persons that can carry on the style that the original gardener developed. With historic gardens, we do rigorous historical research and use photographs as references.

For example, Alcatraz Island in San Francisco provides a lot of challenges; it's complicated in that it's a national park and historic landmark. Because there's no water source—all the water has to be brought in on a boat—we're constantly thinking of ways to garden with less



The Ruth Bancroft Garden in California was the Garden Conservancy's flagship project.

water. One way we do this is to use plants that still have the look and feel of the ones in the historic photographs but require much less water.

How does the Garden Conservancy decide what kinds of gardens are worthy of preservation or restoration?

It's a subjective process. Our portfolio of gardens represents the diversity of gardens across America. What we keep coming back to is that "you know it when you see it" feeling. Many of the criteria are aesthetic, and that's true in any region.

We're also interested in gardens that tell the stories of the people who made them, and not necessarily people who are "famous." One that's exciting is Pearl Fryar's topiary garden in South Carolina. For us it was a departure from the stereotypical idea of what gardens are. The fact that it was created by a person who has no typical associations with gardens makes for a very compelling story. (To read about the Fryar garden, see the July/August 2009 issue of *The American Gardener*.)

In what ways have you seen gardens evolve since the Garden Conservancy was established?

The Garden Conservancy was started in a period that was a Golden Age for American gardens. There was a lot of experimentation with plants and new ideas about gardening. A multitude of wonderful gardens were created in that time. When we started out, sustainability was far from the top of our list of priorities, but that has shifted dramatically.

For many years there was a general perception in the United States that the United Kingdom is home to many of the world's finest gardens. Do you think there has been a change in this viewpoint and that there are now American gardens worthy of similar recognition?

I think everyone still acknowledges the centuries of accomplishment that are present in historical gardens in the UK, but it's fair to say that the American garden has emerged in its own right—not just as a copycat. We have gardens in this country—such as the spectacular drought-tolerant landscapes in the Southwest—that can only be done here. I think our inferiority complex is done once and for all.



Alcatraz Island, above, presents a number of challenges, including limited access to a water source and an active nesting sea bird population. Left: Garden Conservancy volunteers accomplish much of the property's planting and maintenance.

which gardens are part of the program. Including new gardens in new regions each year keeps the program fresh.

This year marks the Garden Conservancy's 20th anniversary. How do you see the organization evolving over the next 20 years?

Like non-profits everywhere, we are having to look carefully at a wise use of limited resources. The overarching goal is to develop a bigger umbrella that positions us better as an advocate for gardens and communicates directly with more people.

Why do you feel it is so crucial for people to spend time in gardens?

It adds a very satisfying dimension to life. No matter where you live or how busy you are, there's a way to connect to nature through a garden. Just viewing gardens is therapeutic. That connection with creativity and beauty is something we all need.

Amanda Griesser is an editorial intern for The American Gardener.

How can the public support the Garden Conservancy and how do you promote your mission?

Becoming a member is important. Our membership program currently has more than 5,000 members, whose contributions keep us going. Our members include professionals in the garden and design fields and serious amateur gardeners.

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Our annual Open Days Program, which is our signature program, was created on the premise that wonderful private gardens are being made everywhere, every day, and that the public should have the opportunity to enjoy them. Because the program depends upon volunteers, their willingness to open their garden to the public helps determine

Grow Garlic Like a Pro

by Kris Wetherbee



GARLIC IS one of the most efficient crops you can grow in a kitchen garden; just compare the minimal space it requires to the powerful flavor it contributes to any culinary effort. It's planted in the fall, when there are fewer gardening chores demanding your attention than in spring. In addition to their bulbs, garlic flower stems—scapes—can be harvested. Cut when young, these delicately flavored stems are delicious sautéed alone, or when added to an omelet or stir fry. And when the garlic bulbs are dug in summer, there's still time to replant the space for a late crop of beans or a fall crop of lettuce.

The flavor that fresh garlic brings to any dish is unsurpassed. And by growing your own garlic, you can choose varieties with the specific balance of flavors and pungency that best suit your palate.

Above, left: Freshly harvested garlic can be gathered in bundles of 10 to 20 stems and hung in a dry, shady, and well-ventilated location for curing. **Above, right:** Mulching with straw protects bulbs in winter and helps prevent weeds during the growing season.

GROWING GUIDELINES

Garlic is easily grown in most any climate. For the plumpiest and tastiest bulbs, grow garlic in a sunny location and in loose, fertile, and evenly moist soil that's well-drained. Soggy soil is a sure invitation for disease and rot, which is why I always grow garlic in raised beds.

One of the tricks of the trade is to incorporate lots of organic matter, such as aged manure, compost, and leaf mold. These help lighten the soil and increase the population of beneficial microorganisms and other soil critters. They also help regulate soil sulfur levels, thereby improving garlic's taste.

Fertile soil is another flavor enhancer. Garlic needs a steady supply of nutrients: nitrogen for leaf growth, and potassium and phosphorus for bulb and root devel-

Planting Basics

GETTING STARTED

A bulb (head) of garlic consists of many individual cloves. Choose the largest, firmest heads, then use only the largest outer cloves for planting in order to produce the biggest bulbs. Save the rest of the head for cooking. You can purchase planting stock from a local grower, farmer's market, or specialty grower.

PLANTING

About four to six weeks before the ground freezes (typically late September through October in the North; November through January in the South), plant individual unpeeled cloves flat end down and pointed tip up. Set the clove's top half to two inches deep in mild-winter areas, and up to four inches deep in cold-winter climates.

SPACING

Plant cloves four to six inches apart in rows spaced six to 12 inches apart.

DAYS TO MATURITY

180 to 270 days depending on variety and location.

opment. (Before planting, some growers dust their garlic cloves with wood ash for potassium, or bone meal for phosphorus.) You can provide these favorite nutrients by applying a one- to two-inch layer of aged manure; this is especially vital as leaf growth resumes in early spring.

Trace minerals are also essential. Good natural sources include kelp meal, lava sand, and azomite. Or you can apply a foliar spray of fish fertilizer or a liquid seaweed mix every two weeks in spring until bulbs begin to form in early summer.

Mulching is one of the best ways to maintain even soil moisture—something garlic thrives on. But for firm heads and

longer storage, it's best to cease watering once leaves begin to brown in summer, which is about the last two to three weeks before harvest. Mulching also prevents competing weeds from surfacing, reduces heaving caused by fluctuating soil temperatures, and protects bulbs in cold winter areas that may lack adequate snow cover. Several inches of a loose straw mulch works well for protecting garlic beds in winter.

PEST AND DISEASE PREVENTION

This pungent plant is bothered by few pests, although onion maggots cause occasional problems. Growing garlic in slightly acidic to neutral soil (pH 6 to 7) will make conditions less favorable for this pest.

Fungal diseases are more of a concern, especially when garlic is grown in heavy and/or soggy soil. Healthy soil is the best preventative, so add lots of aged organic matter. And be sure to rotate your crops—don't grow garlic in the same ground as other allium family members for at least three years.

RECOMMENDED VARIETIES

Garlic is comprised of two main categories: **hardnecks** and **softnecks**. Most hardneck varieties thrive in the northeast, and northern and central states where winters are cold. The cloves are also typically larger, more flavorful, and easier to peel than softnecks. A few choice varieties are:

- 'German Red': large and vigorous, producing hot and spicy cloves favored by chefs; can be grown in mild climates.

- 'Northern White': extremely winter-hardy; big on flavor and clove size; excellent for baking.

- 'Purple Italian Easy Peel': rich, zesty flavor with sweet aftertaste; stores well.

- 'Spanish Roja': Northwest heirloom with spicy-rich, true garlic flavor.

Softnecks grow well in a wide range of climates and growing conditions. They thrive in warmer climates and where winters are mild. Tight skins make them harder to peel, but also make them good for storage. (Some varieties keep up to a year.) A few choice varieties are:

- 'Inchelium Red': stores for up to nine months; mild flavor sharpens with age.

- 'Italian Late': strong and pungent with excellent flavor; long-storing and one of the best for braiding.

- 'Chinese Pink': fine quality cloves with a mellow flavor; extra-early maturing variety can be harvested four to six weeks ahead of most other varieties.

- 'Oregon Blue': highly productive Northwest heirloom with a hot, spirited flavor.

ENJOYING THE HARVEST

Garlic is ready to harvest in summer, after roughly 50 percent of the leaves have turned yellow and withered. The exact timing is influenced by variety and grow-



Garlic heads are composed of many variously-sized individual cloves. To produce large bulbs for harvesting, select only the largest, unpeeled cloves for planting.

Sources

Filaree Farm, Okanogan, WA. (509) 422-6940. www.filareefarm.com.

Garlic Seed Foundation, Rose, NY. (315) 587-9787. www.garlicseedfoundation.info/index.htm.

Hood River Garlic, Hood River, OR. (541) 386-1220. www.hoodrivergarlic.com.

Territorial Seed Company, Cottage Grove, OR. (800) 626-0866. www.territorialseed.com.

Resources

The Complete Book of Garlic: A Guide for Gardeners, Growers, and Serious Cooks by Ted Jordan Meredith. Timber Press, Portland, Oregon, 2008.

Growing Great Garlic: The Definitive Guide for Organic Gardeners and Small Farmers by Ron L. Engeland. Filaree Productions, Okanogan, Washington, 1991.

ing conditions. Ultimately, the bulb should be full, with bulging cloves and the somewhat dry outer papery wrapper intact. Carefully dig bulbs up, roots and all, leaving the stem attached.

After the harvest, garlic needs to be "seasoned"—a process known as curing—for two to six weeks, depending on the weather and drying area. Any dry, well-ventilated, and shady location will do. Simply bundle garlic by their stems in groups of 10 to 20 and hang to dry; or lay bulbs flat on stacked screens, allowing space between bulbs.

Once garlic has cured, trim the roots and cut the stem to within one inch of the bulb. Store bulbs in a cool (45 to 60 degrees F), dry, and well-ventilated area. Leave cloves intact until you are ready to use them. Properly cured, hardneck varieties can keep up to six months; softneck varieties from six to 12 months.

Kris Wetherbee grows garlic and other vegetables in her garden in Oregon.

Selecting the Right Hoe

article and photographs by Rita Pelczar

HOES ARE among the most useful of gardening tools: they grub out rocks and roots, cultivate and mound soil, carve drills for planting seeds, and dispatch weeds. Different types of hoes, however, are better suited to some tasks than others. Although they vary in size, shape, and heft, there are two main types based on how they are used: the draw hoe, which you pull toward you, and the thrust hoe—also called the Dutch hoe—which requires a sweeping, pushing, or push-and-pull action.

DRAW HOES

Used for chopping down weeds, digging seed drills, mounding soil over stems, and breaking up soil, draw hoes consist of a blade that is usually set at less than a right angle to the handle. The blade may be broad with a flat cutting surface, narrow, pointed, or pronged.

Draw hoes designed for moving soil are usually larger and heftier than those used for weeding. They are often called **grubbing hoes**. Two sizes are available from Gardener's Edge: the seven-and-a-half-inch-wide, eight-inch long, tapered edged grubbing blade easily loosens the soil for planting. The blade of the narrow grubbing hoe, which is four-and-a-half inches wide by eight-and-a-half inches long, is well suited to work tighter areas and is particularly useful for trenching or cutting an edge around a bed.

For really tough jobs such as breaking up soil for a new bed, Easy Digging offers a **pointed** or **ridging hoe** made by Bel-lotos that has a beefy, two-pound, eight-



Japanese draw hoe

inch, triangular, forged steel blade that digs through rocks and gravel as well as soil. It's also terrific for mounding soil around potatoes.

The **Polish hoe** from Lee Valley has a 10-inch head that is two blades in one: a narrow grubbing blade on one side and a sharp, pointed blade on the other, and a short, 40-inch handle. It's a useful grub-



Pointed hoe

bing or weeding tool for tight spaces. For large scale weeding chores, I rely on Lee Valley's sturdy **Japanese draw hoe** with its nine-inch-wide blade.

THRUST (DUTCH) HOES

A thrust hoe cuts weeds at or just below the soil surface. These hoes must be sharpened regularly for maximum efficiency, and they work best on young weeds. They are not intended for moving or breaking up soil.

Their blades come in a variety of shapes. The narrow, flat, rectangular blade of a **collinear hoe** makes for a lightweight tool. The blade is mounted on the handle so that it is parallel to the soil surface and in line with the handle. Designed to be used with a sweeping motion, like a broom, it severs young weeds at their base.

All four sides of the **diamond-shaped thrust hoe** blade are sharp, so whether you push or pull the tool, it cuts the weeds it contacts. Similarly sharp, but shaped

like a broad “V,” the **Winged Weeder** has a tempered steel spring blade. It can also be used to carve seed furrows.

The blade of a **stirrup hoe** forms a flat-bottomed loop that cuts weeds as it is pushed over the soil surface. The **Eco-Hoe** from Clean Air Gardening is a good example: its blade is a single piece of one-eighth-inch steel, sharpened on both edges. The blade does not penetrate the soil deeply, so it can be used around shallow-rooted plants without damaging



them, and because the soil is able to pass through the opening of the loop, there is minimal soil disturbance. The **Circle-hoe®**, available with either a long or short handle, offers similar advantages, and its small circular blade makes for easy weeding even in the tightest spaces.

For a very large vegetable garden, a **wheel hoe** such as the one offered by Valley Oak Tool Company, covers a lot of ground quickly. Its tempered steel



Sources

A.M. Leonard's Gardeners' Edge, Piqua, OH. www.gardenersedge.com.

Clean Air Gardening, Dallas, TX. www.cleanairgardening.com.

Easy Digging, Columbia, MO. www.easydigging.com.

Fisher Industries, Inc., Green Valley, AZ. www.wingedweeder.com.

Circle Innovations, Inc., Grants Pass, OR. www.circlehoe.com.

Lee Valley Tools, Ltd., Ogdensburg, NY. www.leevalley.com.

Valley Oak Tool Company, Chico, CA. www.valleyoaktool.com.

spring blade, which comes in seven different sizes, is mounted behind a single wheel connected to double handles. As you wheel your way down each row, the blade efficiently cuts weeds just below the soil surface.

THE BLADE/HANDLE CONNECTION

An important consideration when selecting a hoe is the sturdiness of the blade's attachment to the handle. Blades with a shank that is inserted into the handle and secured by a sheath are generally weaker than hoes with a single-piece blade that wraps around the handle. Heavier blades may have an eye-hole through which the handle is threaded.

HOW TO CHOOSE?

Since no single hoe will likely meet all your needs, I suggest you select at least one for moving soil and another for weeding. If you have the opportunity, try them out before you buy to determine if their weight and balance are right for you. Then purchase the best quality hoe you can afford. A good hoe will last many years and is well worth the investment.

Rita Pelczar is a contributing editor for The American Gardener. She wields multiple hoes in her North Carolina garden.

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7 BULBS TO START THEM VIGOROUSLY, Beating Soil-rot, Hastening Better BLOOMING	8 SEEDS To Help GERMINATION Percentage and SPEED EARLIER, BETTER YIELDS, including Vegetables	9 LAWNS To Make QUICKER, deeper, TOUGHER TURF from SEED, SOG, Stolons, Sprigs, HYDRON-seeding
11 XMAS TREES	12 REFORESTATION	13 HYDROPONICS
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Horticultural News and Research Important to American Gardeners

NEW DISEASE WREAKS HAVOC ON WESTERN WALNUT TREES

The walnut twig beetle, a tiny insect native to Arizona, California, New Mexico, and Mexico, has never been much of a problem on walnut trees (*Juglans* spp.) before. But this has changed recently, scientists say, because of a newly discovered partnership between the beetle and an



aggressive fungus that has had devastating effects on walnuts in several western states. When the beetle bores pin-prick-sized holes into a tree's bark, it introduces the hitchhiking fungus, resulting in what researchers are calling "thousand cankers" disease. Symptoms include dark stains on the bark, yellowing and wilting of the leaves, branch die-back, and eventual death of the tree within a few years after the initial infection.

"It appears that all species of walnut will be affected, but in the field the walnuts from Asia (such as the commercial walnut, *Juglans regia*) seem to be less affected by this insect and disease combination," says Steve Seybold, a chemical ecologist and forest entomologist with the USDA Forest Service's Pacific Southwest Research Station in Davis, California, and an affiliate of the UC-Davis Department of Entomology. "The most susceptible species appear to be eastern

black walnut (*Juglans nigra*), and California black walnut (*Juglans californica*)." To date, thousand cankers disease has been documented in Arizona, California, Colorado, Idaho, New Mexico, Oregon, Utah, and Washington. "Presently the disease appears to be confined to the western U.S., but we are actively looking in the Great Plains and central states for

evidence of the problem," says Seybold. "There is no historical record of the walnut twig beetle in the eastern U.S., but it has demonstrated that it can colonize eastern black walnut when it has been planted in California, Colorado, Oregon, etc., so it is possible that the beetle may colonize eastern black walnut east of the Mississippi."



Thousand cankers disease, spread by tiny walnut twig beetles, above, causes walnut trees to defoliate and eventually die, left.

SMITH & HAWKEN VICTIM OF ECONOMY

No amount of Miracle-Gro fertilizer can revive Smith & Hawken now. By the end of this year, all Smith & Hawken garden retail stores will be closed; online and catalog sales were discontinued in July. The parent organization, the Scotts Miracle-Gro Company, cited economic instability as the reason for terminating the business. Smith & Hawken, known for its upscale selection of gardening tools and outdoor furnishings, was founded in 1979, and Scotts Miracle-Gro purchased

the chain in 2004. Although the business's termination means the loss of hundreds of jobs, Jim Hagedorn, CEO of Scotts Miracle-Gro, has defended the step as the right move for the growth of the company at large. Scotts Miracle-Gro did have hopes of selling Smith & Hawken at one time, but eventually decided it was in the best interests of the company to liquidate it instead.

HOT PLANT FOR COOL SEASONS

If you're looking for a top-performing viola to plant this fall, check your garden center for *Viola cornuta* Endurio® 'Sky Blue Martien'. All-America Selections has spotlighted this new cultivar with its 2010 Cool Season Bedding Plant Award. Named in honor of its breeder, Martien Gutter of Syngenta Flowers, the plant reaches six inches tall and spreads up to 12 inches wide. When planted in the fall, this cultivar produces purplish-blue flowers throughout the winter in mild southern regions. In northern temperate climates up to USDA Hardiness Zone 4, it will flower even after the first frost when planted in fall, overwintering to bloom again in spring after the soil has warmed. If planted in early spring, it will flower into the summer.



Viola cornuta Endurio® 'Sky Blue Martien'

RAINWATER COLLECTION RESTRICTIONS LIFTED IN COLORADO

After decades of living as rain-harvesting renegades, the people of Colorado now have the freedom to utilize an element many may take for granted: Water. Two recently passed state laws will allow nearly a quarter-million people with private wells to legally collect and use rainwater, providing they have a valid permit. Prior to the



Using a rain barrel in home gardens is no longer a criminal offense in Colorado.

inception of these laws, Colorado residents—along with many of their neighbors in surrounding states—were practically prohibited from even sticking their tongue out to enjoy a few drops of rain. The old laws state that the rainwater belonged to ranchers, farmers, and water agencies that owned the rights to waterways where the precipitation is eventually deposited. Colorado officials admit that the old law was loosely enforced, but infringements could result in the perpetrator being taken to court and paying damages. Contributing to the passage of the new laws was a 2007 study that indicated 97 percent of precipitation that fell in an average year in Colorado's Douglas County was not flowing into bodies of water, but was evaporating or being used by plants.

NEW OWNERSHIP FOR WESTERN GARDEN SHOWS

To the relief of garden-show goers everywhere, the Northwest and San Francisco Flower & Garden Shows will continue to be produced, albeit under new ownership. Founder Duane Kelly produced the shows



A display by Daniel Owens of EnviroMagic at a recent San Francisco Flower & Garden Show

for 21 years before announcing last October that he was selling them to pursue other interests. This May, the San Francisco Flower & Garden Show was purchased by a group of Bay Area businessmen. The San Francisco Show is the third-largest in the country. The Northwest Flower &

How a cemetery revived a community



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Photo © Laura M. Osteen

Garden Show, the second-largest show in the country, drawing more than 50,000 attendees last year, was sold to O'Loughlin Trade Shows of Portland, Oregon, and Tacoma, Washington, in July.

Although the ownership has changed, Bill O'Loughlin, president of O'Loughlin Trade Shows, has pledged to follow Kelly's original format. Additionally, some em-

ployees will remain to ensure the success of the Northwest Show, including Kelly himself, who will serve as a consultant. Kay Estey, producer for the San Francisco Show, says the event will "have the feeling of a fair, but with the same emphasis on horticulture and the green industry."

The Northwest Show will take place from February 3 to 7, 2010, in Seattle,

Washington, while the San Francisco Show is scheduled from March 24 to 28 in San Mateo, California. Additional information for both shows will be available at www.gardenshow.com closer to the dates of the events.

News written by Editorial Intern Amanda Griesser and Associate Editor Viveka Neveln.

PEOPLE and PLACES in the NEWS

Missouri Botanical Garden Now a Horticultural Landmark

The American Society for Horticultural Science (ASHS) has honored the Missouri Botanical Garden as the latest public



garden to receive its Horticultural Landmark designation. The Missouri Botanical Garden (MBG), the oldest continually operating botanical garden in the United States, is celebrating its 150th anniversary this year.

The ASHS screening committee considers the historical, scientific, aesthetic, and environmental impact of a garden when selecting one for this honor. George Fitzpatrick, the 2009 chair of the ASHS Screening Committee, says they chose MBG because of its "excellent outreach and educational programs, its excellent research programs—especially in plant conservation and biodiversity—and the documentation of its extensive horticultural collections."

The Horticultural Landmark program was established in 1996 by then ASHS president, Donald Maynard. The first public garden to receive the Horticultural Landmark designation from the ASHS was Monticello: Thomas Jefferson's Home and Garden, in 1998. Other sites that have received the distinction include the U.S. Botanic Garden in Washington, D.C., Longwood Gardens in Pennsylvania, the New York Botanical Garden, the American Horticultural Society's River Farm headquarters in Virginia, and the San Antonio River Walk in Texas.

Author of *Green Thoughts* Dies

Eleanor Perenyi, a longtime gardener with a flair for writing, passed away on May 3, 2009, at the age of 91. Perenyi was born in Washington, D.C., and later settled in Stonington, Connecticut. Her book, *Green Thoughts: A Writer in the Gar-*

den (Random House), was first published in 1981 and is her only book on gardening. The book is a compilation of essays that dovetails Perenyi's love of gardening with social commentary and wit. *Green Thoughts* was praised for its refreshingly contrary approach to typical Connecticut gardens and accessibility to a large audience of gardeners and non-gardeners alike. It was chosen as one of the American Horticultural Society's 75 Great American Garden Books and was reprinted in 2002. Perenyi's other titles include *The Bright Sword* (Rinehart, 1955) and *Liszt: The Artist as Romantic Hero* (Little, Brown, & Company, 1974), which was a finalist for the National Book Award.

Betty Ford Alpine Gardens Receives Garden Excellence Award

Betty Ford Alpine Gardens in Vail, Colorado, was recently added to a list of distinguished American gardens after it received the Award for Garden Excellence from the American Public Gardens Association in June. The award, sponsored by *Horticulture* magazine, was established in 2003. In order to be considered for the award, a public garden must exemplify a standard of criteria including environmentally conscious gardening practices, an outstanding horticultural display, and a commitment to the national or regional gardening community and to educating future gardeners.

Past recipients of the award are Olbrich Botanical Garden in Wisconsin, the Chicago Botanic Garden in Illinois, and the Chanticleer Foundation in Pennsylvania. Betty Ford Alpine Gardens is located more than 8,000 feet above sea level, making it the highest botanical garden in the United States. The garden, established in 1985 and named for the wife of former President Gerald Ford, has long been recognized for its displays of high-altitude wildflowers and woody plants.

—A.G.

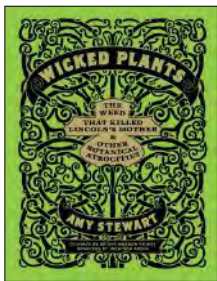


Recommendations for Your Gardening Library

Wicked Plants: The Weed That Killed Lincoln's Mother & Other Botanical Atrocities

Amy Stewart. Etchings by Briony Morrow-Cribbs; Illustrations by Jonathon Rosen. Algonquin Books, Chapel Hill, North Carolina, 2009. 236 pages. Publisher's price, hardcover: \$18.95.

READER BEWARE: This is one scary book! Plants can be dangerous to your health—and some can even kill you.



In the breezy, conversational style of her previous book, *Flower Confidential*, an exposé of the flower biz, Amy Stewart both enchants and enlightens again. This time her focus is the less benign aspects of the plant world—a subject every gardener should pay serious attention to.

Some of the most dangerous plants under scrutiny here are among the most common of garden favorites. There is the hardy aconite (*Aconitum napellus*), for example, whose beautiful blue, helmet-shaped flowers give it its common name, monkshood. “All parts of the plant are extremely toxic. . . gardeners should wear gloves anytime they go near it,” Stewart cautions.

Then there is castor bean (*Ricinus communis*), a glorious tender perennial that can reach 10 feet in a single bound. Ingesting only three or four of its seeds can kill you. Ricin, an extract of its bean, is believed to have done in a Bulgarian communist defector who was stabbed with a poison-tipped umbrella in 1978.

Stewart spins many a fascinating, illuminating, and frightening yarn as she reveals dozens of “wicked species,” both common as well as exotic. It is compelling indeed to read of deadly nightshade (*Atropa belladonna*), for example. Every part is lethally poisonous if ingested and “just rubbing up against it can raise pustules on the skin.” Meanwhile, Jimson weed (*Datura stramonium*) causes hallucinations as well as respiratory failure.

And those innocent-seeming tropicals? All parts of the Sago palm (*Cycas revoluta*), a treasured houseplant in northern climes, contain carcinogens. Its narrow leaves beckon as tasty treats, so parents of young children—as well as dog owners—must beware.

At least the opium poppy (*Papaver somniferum*), producer of the infamous, addictive narcotic, yields such medically valuable products as morphine and codeine. Fortunately, Stewart explains, its seeds, used as a popular culinary ingredient, are legal.

It is only a shame that this delightfully written, well researched, and truly invaluable book is missing an index.

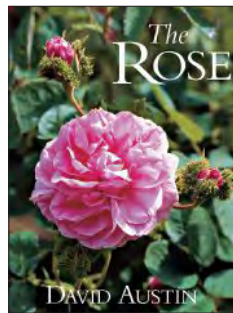
—Linda Yang

Linda Yang, former garden columnist for The New York Times, is author of four books including *The City Gardener's Handbook*.

The Rose

David Austin. Garden Art Press, Suffolk, England, United Kingdom, 2009. 352 pages. Publisher's price, hardcover: \$85.

THIS SUMPTUOUS BOOK is like a leisurely walk through the world of roses with David Austin, the world's most eminent rosarian, at your side, speaking in fascinating detail about each exquisite rose you come upon. In 12 chapters, he introduces the reader to more than 900 individual plants, most given gorgeous, full-color, close-up photographs of the flowers. Although its purview is decidedly English, this coffee-table-sized book is a valuable resource on both sides of the Atlantic because most of the roses it includes are available in the United States.



Chapters are organized by rose type, including original old roses—both once-flowering and repeat-flowering;

hybrid teas and floribundas; small roses; English roses; shrub roses; climbers; ramblers; and species roses. Austin intimately describes each rose's habit, flower color, fragrance, and other details, including how it got its name and when it was introduced.

At the end of the book, Austin covers the use of roses in the garden, including photos of beautiful plant marriages (think roses and clematis) and perennials that make useful companions for roses (think soft pink roses with silvery-green lamb's ear); using cut roses in arrangements for the house; and a few pages on cultivation, pruning, and pest and disease control.

Who in the world could be more qualified to write this book than David Austin? Since he was 20 years old, this octogenarian has worked as a grower and hybridizer at his nursery in Shropshire, England. Along the way he has created some of the world's finest rose gardens. Among his greatest achievements—one that has literally changed the world of roses for the betterment of us all—is the introduction of hybrids that he calls English roses, but which much of the world knows as Austin roses.

These exceptional plants combine the lovely forms, fragrances, and charm of ancient, out-of-fashion, once-blooming roses such as gallicas, albas, and centifolias with the repeat-flowering habit, wider color range, and hardy disease resistance of modern roses. The result is that Austin has changed the way gardeners around the world think of these cherished plants. This book is the distilled essence of Austin's deep knowledge.

—Jeff Cox

Jeff Cox is a contributing editor of *Horticulture* magazine and the author of *Landscape with Roses* (Taunton Press, 2002).

The Perennial Care Manual

Nancy J. Ondra. Storey Publishing, North Adams, Massachusetts, 2009. 384 pages. Publisher's price, softcover: \$24.95.

NEW GARDENERS dazzled by flowers don't often make the best decisions, so a guide that advises on choosing and caring for perennials from the first step of garden-making fills many needs.

In *The Perennial Care Manual*, Nancy Ondra takes the reader by the hand and walks through the steps necessary for making a beautiful garden. In "Perennial Care Basics," the first part of the book, planning and preparation are balanced with maintenance and troubleshooting various problems. Tasks such as taking cuttings, checking soil moisture, and cutting plants back get full treatment, always with a positive approach. Even in a discussion of earwigs, Ondra's easy-going attitude and can-do spirit reassure the reader that a few nibbled dahlias are by no means the end of the world.

Part Two, "Plant-by-Plant Perennial Guide," lists 125 herbaceous perennials, their merits and shortcomings, and just what to do with them through the year. The plants are listed alphabetically by botanical name, and there is a handy cross-reference with common names at the beginning of the section. Ondra also includes general entries on bulbs, ferns, and grasses, which briefly cover their main characteristics and growing tips along with a few suggestions for species that play well with other perennials. My only disappointment is that the book did not provide noteworthy cultivars, other than occasionally listing one or two in the general description of the species.

Tips on growing each species include propagation through division, cutting, or seed, as well as cultural requirements. Potential problems are dealt with by offering uncomplicated organic solutions that begin, for example, by urging the gardener to start with mechanical control of insects before stepping up to insecticidal soaps.

Ondra points out possible problems in growing particular plants and then offers ways around the difficulty. Her advice on Japanese anemones, for example, suggests growing these beautiful thugs as a groundcover around trees instead of trying to fit them into a mixed planting, where they would eventually muscle out their neighbors.

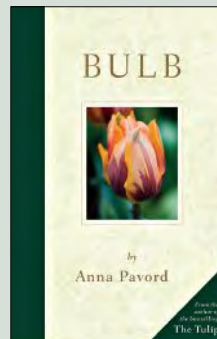
Rob Cardillo's rich photographs throughout the book showcase the beauty of the flowers. They also provide clear visual depictions of the tasks and techniques—from digging and staking to dividing and deadheading—about which Ondra writes. With Ondra's knowledge and presentation and Cardillo's lovely photographs, *The Perennial Care Manual* should be one of the first books for any beginning gardener and is certainly a worthwhile reference for more advanced gardeners, too. 🍷

—Marty Wingate

Marty Wingate is currently working on her fourth gardening book. Based in Seattle, Washington, she writes about gardening and travel at www.martywingate.com.

BULBS GALORE

If you're looking for some inspiration and guidance for which bulbs to plant this fall—or any time of year for that matter—



look no further than *Bulb* by Anna Pavord (Mitchell Beazley, 2009, \$39.99). This weighty reference covers some 600 species and varieties of bulbous plants ranging from the common to the curious. The great diversity of the geophyte world may be a taxonomist's nightmare, opines Pavord, "but for gardeners it is pure joy." This joy shines through in her detailed descriptions of the alphabetically arranged bulbs and the plentiful color photographs by Andrew Lawson. Each entry also lists the season of bloom, hardiness range, and height, though Pavord cautions that these should be used as general guidelines since they can be skewed by any number of factors such as weather patterns or region. For further guidance, a section at the end of the book contains lists of bulbs by their expected season of bloom. A final section on growing bulbs offers tips, tricks, and other helpful things to keep in mind for the most successful experience.

—Viveka Neveln, Associate Editor

A ROOM OF ONE'S OWN

The word "shed" conjures images of gardening tools and workbenches more readily than leather couches and chandeliers, but Debra Prinzing, author of *Stylish Sheds and Elegant Hideaways* (Crown Publishing Group, 2008, \$30), encourages us to venture outside the box when thinking about sheds. She re-defines a shed as "a small structure designed and built for one's personal enjoyment." A far cry from musty storage closets, the modern-day sheds in this book are just as appealing



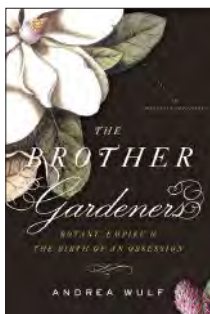
as the homes they sit next to, and many are nestled in colorful, lush gardens. Prinzing's book explores 28 sheds from across the country that run the gamut from modern, sophisticated workspaces to rustic outdoor cabins. Each shed has a highly personalized style and story behind it, and Prinzing addresses everything from the conception and "must-haves" of the shed's design to the architectural challenges of making it a reality. The book captures the spaces of artists, landscape designers, and the everyday recluse with the help of William Wright's intimate photographs. *Stylish Sheds* demonstrates that, in favor of utilitarianism, a little imagination goes a long way in creating an alluring, private retreat closer to home.

—Amanda Griesser, Editorial Intern

Horticultural History

IN ORDER TO predict and plan for the future, it is essential to understand the past. When it comes to American horticulture, there is indeed a rich past to explore. While U. P. Hedrick's *A History of Horticulture in America*, published in 1950, will always remain a classic, several recently released books offer intriguing perspectives into the early days and people that still influence gardening today. The following titles cover important events in American Colonial gardening, specific events in American horticultural history, regional challenges, the personal landscape, and the far-reaching influence one plant breeder still projects decades after his death.

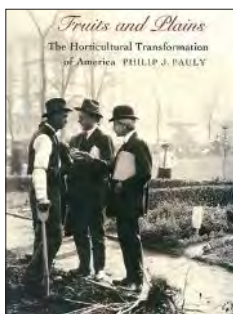
Few gardeners are aware of the excitement American plants engendered in England and Europe in the eighteenth century.



Whole estates were planted with American natives as described in *The Brother Gardeners* (Knopf, 2009, \$35). Andrea Wulf brings this formative period of plant history to life in her detailed research of John Bartram and Peter Collinson and their obsession with new plants from America and around the world. Collinson, a London merchant, required the most unique plant specimens, and Bartram, an American farmer and botanist, sowed the seeds of the

first American scientific society. This well-written history illustrates how these two men—along with a few other passionate plantsmen of the time, including Carolus Linnaeus—laid the groundwork for modern botanical science.

Fruits and Plains: The Horticultural Transformation of America (Harvard University Press, 2009, \$42) by Philip J. Pauly



focuses on how plant science has impacted and continues to influence daily life in the United States. Among the horticultural milestones explored are innovative Colonial practices, the rise of landscape architecture, and the initial efforts to tame Florida's unique flora. Each chapter covers a specific issue or event and the impacts these had on horticultural developments. For example, Pauly examines 19th- and early 20th-century

politics and the people involved in dealing with invasive species—both introduced and indigenous—many of which are still problems today. Especially interesting is the creation of an American Landscape ideal through the interactions of visionaries such as Frederick Law Olmsted, Jens Jensen, and Aldo Leopold. The notes offer a wealth of references for further reading.

High Plains Horticulture (University Press of Colorado, 2008, \$34.95) explores the tenacious plant cultivation efforts oc-

casioned by the westward migration into the water-starved Central Plains of these United States. John Freeman tells a story of



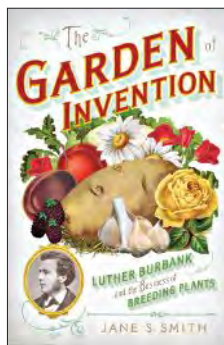
hope and resilience as the military, early settlers, and eventually land grant university Extension agencies developed the means for growing both ornamental and esculent plants in lands with limited precipitation. Long overdue for credit for their horticultural contributions are Charles Bessey and Aven Nelson, economic botanists responsible for the eventual success of cultivated plants in a difficult landscape. The black-and-white photographs in the book attest to the inhospitable conditions faced by the early inhabitants.

From Yard to Garden (The Center for American Places at Columbia College Chicago, 2008, \$32.50) by Christopher



Grampp is a fascinating account of how the present day home garden evolved from its rude beginnings in the early 1800s. The book chronicles how American urban yards transformed from agricultural and utilitarian spaces—areas to dump waste, throw laundry water, and raise food—to the horticultural havens we are familiar with today. One of the critical points is the burgeoning suburban growth after World War II and the rise of foundation plantings. The idea of landscape as conformity in the developing suburbs offers an interesting view of American culture.

Luther Burbank was the most revered plant breeder of his time, thanks to the numerous improved varieties he introduced



from 1873 to 1925. While his extraordinary life and work are central to *The Garden of Invention* (The Penguin Press, 2009, \$25.95) by Jane Smith, this book is also the story of “how an earlier generation responded to the unprecedented idea that the vegetable kingdom could be mastered, directed, and even claimed as private property.” Not only did Burbank expand the range of plants used for food or beautification, but his death set in motion the development of plant patents and genetic modification research, important topics in the world of plants today.

—Keith Crotz

Keith Crotz is the owner of *American Botanist, Booksellers* (www.amerbot.com) in Chillicothe, Illinois.



REGIONAL HAPPENINGS

Horticultural Events from Around the Country

NORTHEAST

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

RAP SEPT. 19 & 20. **Fall Plant/Book Sale.** Landis Arboretum. Esperance, New York. (518) 875-6935. www.landisarboretum.org.

SEPT. 24. **Fall Evening Seminar: Winterizing Your Garden.** Fuller Gardens. North Hampton, New Hampshire. (603) 964-5414. www.fullergardens.org.

RAP SEPT. 26 & OCT. 24. **Propagating Trees and Shrubs from Cuttings and Seeds.** Class. The Arnold Arboretum of Harvard University. Boston, Massachusetts. (617) 524-1718. www.arboretum.harvard.edu.

RAP OCT. 3 & 4. **Harvest Festival.** Berkshire Botanical Gardens. Stockbridge, Massachusetts. (413) 298-3926. www.berkshirebotanical.org.

RAP OCT. 10 & 11. **Orchid Society Show.** Niagara Frontier Orchid Society. Buffalo and Erie County Botanical Gardens. Buffalo, New York. (716) 827-1584. www.buffalogardens.com.

RAP OCT. 24. **Woodland Landscape Program.** Class. Manitoga/The Russell Wright Design Center. Garrison, New York. (845) 424-3812. www.russellwrightcenter.org.

OCT. 31. **Winter Composting.** Class. Cornell Cooperative Extension. Ithaca Community Gardens. Ithaca, New York. (607) 272-2292. <http://ccetompkins.org>.

MID-ATLANTIC

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

SEPT. 19 & 20. **Greater Philadelphia Dahlia Society Show.** Longwood Gardens. Kennett Square, Pennsylvania. (717) 426-1594. E-mail: telkner@psu.edu.

SEPT. 25-27. **74th Annual Dahlia Show.** National Capital Dahlia Society. Brookside Gardens. Wheaton, Maryland. (540) 882-3602. <http://nationalcapitaldahlia.org>.

RAP SEPT. 26. **Lessons Learned in the Vegetable Garden.** Lecture. Green Spring Gardens. Alexandria, Virginia. (703) 642-5173. www.greenspring.org.

SEPT. 28. **City Gardening Series: Fall Tree**

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

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

Walk. Fairmount Park Horticulture Center. Philadelphia, Pennsylvania. (215) 988-8872. www.fairmountpark.org/hortcenter.asp.

OCT. 10. **Tufton Fern Walk.** Tufton Farm. Monticello, the Thomas Jefferson Foundation. Charlottesville, Virginia. (434) 984-9822. www.monticello.org.

OCT. 15. **In Praise of Ladies-tresses Orchids.** Class. Mt. Cuba Center. Greenville, Delaware. (302) 239-4244. www.mtcubacenter.org.

OCT. 16. **2009 Perennial Plant Conference.** Swarthmore College. Swarthmore, Pennsylvania. (610) 388-1000. www.perennialplantconference.org.

OCT. 17. **75 Years: Celebrating the Preserve's History with Talks, Tours, and More.** Bowman's Hill Wildflower Preserve. New Hope, Pennsylvania. (215) 862-2924. www.bhwp.org.

RAP OCT. 28 & 29. **Timeless Design in a Sustainable World: Charles F. Gillette Forum.** Symposium. Lewis Ginter Botanical Garden. Richmond, Virginia. (804) 262-9887. www.lewisginter.org.

SOUTHEAST

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

RAP SEPT. 19 & 20. **Aroid Show and Sale.** International Aroid Society. Fairchild Tropical Botanic Garden. Coral Gables, Florida. (305) 667-1651. www.fairchildgarden.org.

RAP SEPT. 19 & 20. **Fall Open House & Native Plant Sale.** Reflection Riding Arboretum

& Botanical Garden. Chattanooga, Tennessee. (423) 821-9582. www.reflectionriding.org.

SEPT. 24-26. **Restoring Southern Gardens & Landscapes.** Conference. Old Salem Museum & Gardens. Winston-Salem, North Carolina. (336) 758-5900. www.oldsalem.org.

RAP SEPT. 29. **Perennial Color for Every Season.** Class. Aldridge Botanical Gardens. Hoover, Alabama. (205) 682-8019. www.aldridgegardens.com.

OCT. 1-3. **The Landscape Show.** Florida Nursery, Growers and Landscape Association. Orlando, Florida. (800) 375-3642. www.thelandscapeshow.org.

RAP OCT. 7-10. **Fall Plant Sale.** Wing Haven Gardens & Bird Sanctuary. Charlotte, North Carolina. (704) 331-0664. www.winghavengardens.com.

RAP OCT. 10 & 11. **Carolina Bonsai Expo.** North Carolina Arboretum. Asheville, North Carolina. (828) 665-2492. www.ncarboretum.org.

OCT. 28-31. **Green Industry Conference.** Professional Landcare Network. Louisville, Kentucky. (800) 395-2522. www.greenindustryconference.org.

NORTH CENTRAL

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

RAP SEPT. 19 & 20. **Fall Harvest Festival.** Cedar Valley Arboretum & Botanic Gardens. Waterloo, Iowa. (319) 296-4027. www.cedarvalleyarboretum.org.

RAP SEPT. 20. **Stonescaping Class.** Minnesota Landscape Arboretum. Chaska, Minnesota. (952) 443-1400. www.arboretum.umn.edu.

SEPT. 26 & 27. **Barberton Mum Fest.** City of Barberton Beautification Program and Yoder Brothers, Inc. Barberton, Ohio. (330) 848-6653. E-mail: lmclean@cityofbarberton.com.

RAP OCT. 1-4. **Fall Bulb Mart.** Des Moines Botanical Center. Des Moines, Iowa. (515) 323-6294. www.botanicalcenter.com.

RAP OCT. 2-4. **The Bulb Bazaar.** Chicago

Botanic Garden. Glencoe, Illinois. (847) 835-5440. www.chicagobotanic.org.

RAP OCT. 10. **Putting Your Garden to Bed.** Class. Klehm Arboretum and Botanic Garden. Rockford, Illinois. (815) 965-8146. www.klehm.org.

RAP OCT. 18. **Fall Bonsai Show.** Frederik Meijer Gardens & Sculpture Park. Grand Rapids, Michigan. (888) 957-1580. www.meijergardens.org.

Looking ahead:

NOV. 7. **Native Plant Communities: What to Plant, Where, and Why.** Conference. Indiana Native Plant and Wildflower Society. Indianapolis, Indiana. (317) 283-8345. www.inpaws.org.

SOUTH CENTRAL

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

RAP SEPT. 20. **Home Landscape Design.** Class. The Crosby Arboretum. Picayune, Mississippi. (601) 799-2311. www.crosbyarboretum.msstate.edu.

SEPT. 23. **Herbs: Medicinal, Culinary, Aromatherapy.** Class. Overland Park Arboretum and Botanical Gardens. Overland Park, Kansas. (913) 895-6000. www.opkansas.org.

OCT. 3. **PlantFest!** Plant sale. Hilltop Arboretum. Baton Rouge, Louisiana. (225) 767-6916. www.lsu.edu/hilltop.

RAP OCT. 8-10. **Orchids in October.** Festival. Myriad Botanical Gardens. Oklahoma City, Oklahoma. (405) 297-3974. www.myriadgardens.com.

RAP OCT. 9-11. **Fall Plant Sale and Gardening Festival.** Lady Bird Johnson Wildflower Center. Austin, Texas. (512) 232-0100. www.wildflower.org.

RAP OCT. 9-11. **An Earth and Epicurean Experience.** Plant sale. Garvan Woodland Gardens. Hot Springs National Park, Arkansas. (800) 366-4664. www.garvangardens.org.

RAP OCT. 17 & 18. **Austin African Violet Society Show & Sale.** Zilker Botanical Garden. Austin, Texas. (512) 477-8672. www.zilkerbotanicalgarden.org.

SOUTHWEST

AZ, NM, CO, UT

RAP SEPT. 26. **Fall Plant Sale.** Santa Fe Botanical Garden. Santa Fe, New Mexico. (505) 471-9103. www.santafebotanicalgarden.org.

OCT. 5-8. **Collaborative Conservation in Rapidly Changing Landscapes.** Conference. Southwest

Naples Botanical Garden, a Tropical Paradise

THIS NOVEMBER, Naples Botanical Garden (NBG) in Naples, Florida, will reopen in a grand way—with the debut of a 160-acre tropical paradise. NBG closed to the general public in June 2008 to accommodate the development of five new gardens, three of which showcase tropical plants that flourish along the same latitude, between 26 degrees north and south. The Brazilian, Caribbean, and Children's Gardens will open to the public on November 9, while the Asian and Florida Gardens will open within the next two years. Ninety acres worth of restored natural habitats and a birding tower will also open in November.

NBG plans on celebrating the new additions by providing a week of activities, beginning November 10 with the opening celebration dinner and first preview of the gardens. November 13 is the exclusive member's preview of the gardens, which will be open to AHS members as a benefit of the AHS Reciprocal Admissions Program. The grand public opening on November 14 and 15 will feature day-long entertainment and activities for the entire family.

NBG began as little more than the vision of a small group of Naples community members, who purchased 30 acres of land for the original garden in 1998. The garden's next endeavor is the construction of the Harvey Kapnick Education and Research Center, scheduled for its grand opening in January 2010. The center represents the collaborative efforts of NBG and Florida Gulf Coast University, who will both utilize the space for lifelong learning programs, workshops, meetings, and symposia.

"We like to call Naples the crown of southwestern Florida, and we see Naples Botanical Garden as another jewel in the crown," says Amy Kessler of NBG. More information on NBG and its continued growth is available at www.naplesgarden.org.



A treehouse in the new Children's Garden

Rice Science Center Opens in Chicago

SCIENTISTS ARE concerned that many plant species face extinction in the coming decades, but due to the efforts of the Chicago Botanic Garden (CBG), the future looks a little greener. On September 23, CBG will open a new research and educational facility, the Daniel F. and Ada L. Rice Plant Conservation Science Center.

The 38,000-square-foot center will house a number of laboratories, a library for scientific journals and books, and a herbarium. Greg Mueller, vice president for science and academic programs, says that the new facility will "allow us to expand and enhance our activities in conservation and train the next generation of scientists."

Another feature of the center is a 16,000-square-foot roof garden. This garden not only provides enjoyment for the public, but upholds the environmentally conscious approach that the construction team adhered to throughout the center's creation. "We want this building to be a model for how we can build sustainably," Mueller adds. The majority of construction waste will be diverted by an erosion and sedimentation plan, and recycled materials were used in the center. These and other measures were taken to earn a gold rating from the U.S. Green Building Council.

In celebration of the Rice Science Center's grand opening, on September 21, author Michael Pollan will deliver a lecture relating to his book, *In Defense of Food: An Omnivore's Solution*. For more information about the lecture or the Rice Science Center, visit www.chicagobotanic.org or call (847) 835-5440. The Chicago Botanic Garden is a member of the AHS Reciprocal Admissions Program, so AHS members receive free parking with a valid membership card.

—Amanda Griesser, Editorial Intern

Biological Science Center & the Society for Conservation Biology. Flagstaff, Arizona. (928) 556-7094. <http://sbcs.wr.usgs.gov>.

OCT. 9–25. **Fall Plant Sale.** Boyce Thompson Arboretum. Superior, Arizona. (520) 689-2723. <http://arboretum.ag.arizona.edu>.

RAP OCT. 11. **Fall Harvest Class: Preserving Your Bounty.** The Arboretum at Flagstaff. Flagstaff, Arizona. (928) 774-1442. www.thearb.org.

OCT. 10 & 11. **Ikebana Show.** Albuquerque Biological Park. Albuquerque, New Mexico. (505) 764-6200. www.cabq.gov/biopark.

RAP OCT. 17. **Indoor Succulent Gardens.** Class. The Gardens on Spring Creek. Fort Collins, Colorado. (970) 416-2486. www.fcgov.com/horticulture.

Looking ahead:

NOV. 5. **Southwest Landscape & Nursery Expo.** University of Phoenix Stadium. Glendale, Arizona. (480) 966-1610. www.azna.org.

WEST COAST

CA, NV, HI

SEPT. 23 & 24. **Garden Market Expo 2009.** California Association of Nurseries and Garden Centers. Las Vegas Convention Center. Las Vegas, Nevada. (800) 748-6214 ext. 13. www.gardenmarketexpo.com.

RAP SEPT. 26. **Wildflower Seed Balls.** Class. Descanso Gardens. La Cañada Flintridge, California. (818) 949-4200. www.descansogardens.org.

OCT. 3 & 4. **San Diego County Branch Begonia Show and Sale.** The American Begonia Society. Balboa Park. San Diego, California. (760) 753-3977. www.begonias.org.

RAP OCT. 3 & 4. **A Pacific Horticulture Symposium: Lessons in Sustainable Gardening.** Santa Barbara Botanic Garden. Santa Barbara, California. (805) 682-4726. www.sbbg.org.

OCT. 8 & 9. **The Growing Classroom: An Introduction to Garden-Based Learning. Workshop.** Life Lab Science Program. Santa Cruz, California. (831) 459-2001. www.lifelab.org/workshops.html.

RAP OCT. 10. **Trees, Ferns & Rhododendron Plant Sale.** San Francisco Botanical Garden at Strybing Arboretum. San Francisco, California. (415) 661-1316. www.sfbotanicalgarden.org.

RAP OCT. 17 & 18. **Fall Plant Sale.** Quail Botanical Gardens. Encinitas, California. (760) 436-3036. www.qbgardens.org.

Learning Garden in Colorado Brings People and Plants Together

THE ETHNOBOTANY UTE LEARNING GARDEN, adjacent to the Mesa County Arboretum in Grand Junction, Colorado, highlights the vital relationships between plants and people. On September 18, the garden will hold an open house featuring ethnobotany workshops and talks by members of the Northern Ute Indian Tribe. Members of the public can attend this event for a fee; the proceeds will be used to purchase additional plants for the meadow and other areas of the arboretum. The ethnobotany garden is the joint project of several groups, including the Northern Ute Indian Tribe, U.S. Department of the Interior Bureau of Land Management, and Colorado State University Extension.

The two-and-a-half-acre garden will feature plants from several ecological zones in western Colorado—including desert, piñon juniper woodland, and ponderosa pine forest—and provide visitors with lessons on how native tribes used indigenous plants for food, shelter, and in other aspects of traditional culture. A Living Laboratory and Adaptive Garden, designed to accommodate people with disabilities, are being created to complement the learning garden. The projected date of completion for the entire project is 2011.

“The Northern Ute Indian Tribe has been working with us from the start, especially with the interpretive signs and the selection of plants for each of the ecological zones,” says Curtis Swift, a CSU professor and Extension agent. In June, students from the tribe helped raise a teepee that serves as the focal point of the project. To learn more, visit www.westernslopegardening.org.

—Amanda Griesser, Editorial Intern



In June, members of the Northern Ute Tribe raised a traditional teepee, which serves as the focal point of the Ethnobotany Ute Learning Garden in Colorado.

RAP OCT. 29. **Easy Gardening with Native Plants.** Class. Los Angeles County Arboretum and Botanical Garden. Arcadia, California. (626) 821-3222. www.arboretum.org.

NORTHWEST

AK, ID, MT, OR, WA, WY

SEPT. 26. **Maple Pruning Workshop.** Portland Japanese Garden. Portland, Oregon. (503) 223-1321. www.japanesegarden.com.

OCT. 1–4. **Portland Fall Home and Garden Show.** O’Loughlin Trade Shows. Portland, Oregon. (503) 246-8291. <http://otshows.com>.

OCT. 14. **What Is a Garden?** Lecture. Northwest Horticultural Society. University of Washington Botanic Gardens. Seattle, Washington. (206) 527-1794. www.northwesthort.org.

Looking ahead:

RAP NOV. 7. **Rethinking Idaho Landscapes.**

Symposium. Idaho Botanical Garden. Boise, Idaho. (208) 343-8649. www.idahobotanicalgarden.org.

CANADA

SEPT. 29–OCT. 4. **National Symposium on Parks and Grounds and National Awards Ceremonies.** Communities in Bloom. Vaughan, Ontario. (877) 640-4005. www.cibontario.ca.

RAP OCT. 17. **Preparing for Winter.** Class. Glendale Gardens & Woodland. Victoria, British Columbia. (250) 479-6162. www.glendalegardens.ca.

OCT. 20 & 21. **Garden & Floral Expo.** Landscape Ontario and Flowers Canada Inc (Ontario). Toronto Congress Centre. Etobicoke, Ontario. (905) 875-1805. www.landscapeontario.com and www.flowerscanadagrowers.com.



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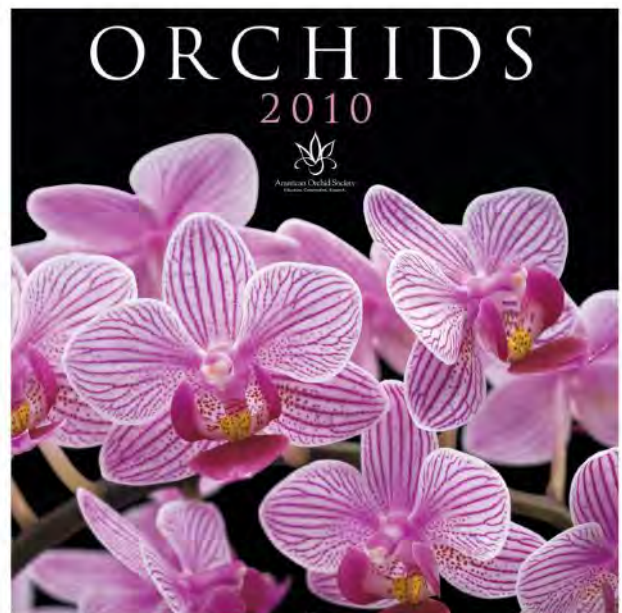
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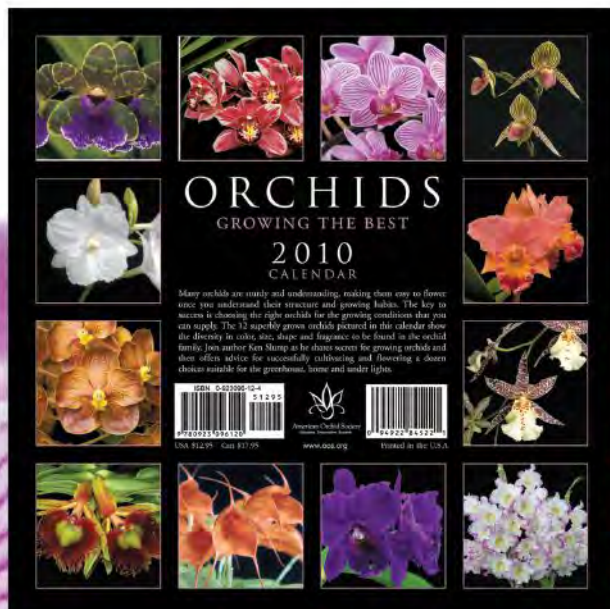
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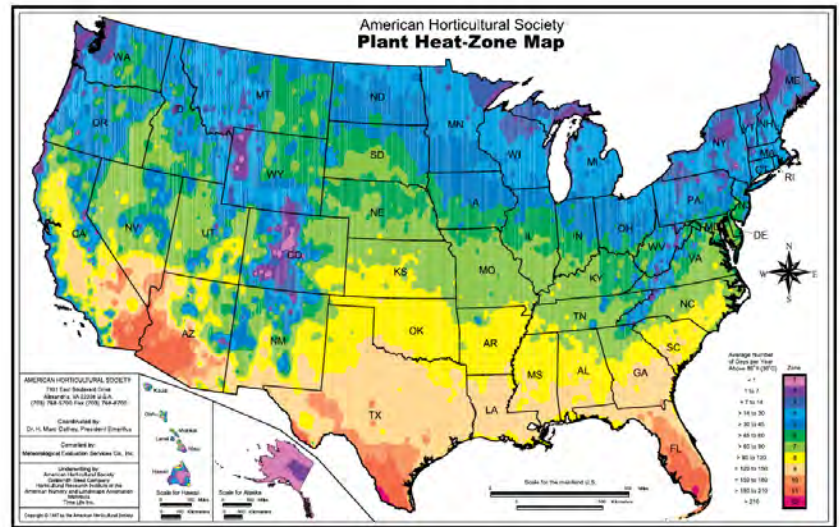


PRONUNCIATIONS AND PLANTING ZONES

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

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

To purchase a two-by-three-foot glossy AHS Plant Heat Zone Map for \$9.95, call (800) 777-7931 or visit www.ahs.org.



Allium sativum AL-ee-um sah-TY-vum (USDA Zones 2–9, AHS Zones 12–1)

Aloe striata AL-o stry-AY-tuh (10–11, 12–10)

Arabis procurrens AIR-uh-biss pro-KUR-renz (3–7, 8–1)

Aralia racemosa uh-RAY-lee-uh ras-eh-MO-suh (5–9, 9–1)

Cerastium candidissimum sair-ASS-tee-um
KAN-dih-diss-ih-mum (4–9, 9–3)

Cercidiphyllum japonicum sur-sid-ih-FIL-lum
jah-PON-ih-kum (4–8, 8–3)

Chasmanthium latifolium chas-MAN-thee-um
lat-ih-FO-lee-um (5–9, 9–5)

Chionanthus retusus ky-o-NAN-thus reh-TOO-suss
(5–9, 9–3)

Drosanthemum floribundum dro-SAN-theh-mum flor-ih-
BUN-dum (7–10, 10–5)

Euphorbia milii yew-FOR-bee-uh MILL-ee-eye
(11–11, 12–1)

Fargesia nitida far-JEE-see-uh NIT-ih-duh (5–9, 9–5)

Franklinia alatamaha frank-LIN-ee-uh ah-la-ta-MAH-hah
(6–9, 9–6)

Hakonechloa macra ha-kon-eh-KLO-uh MAK-ruh
(4–9, 10–4)

Hamamelis mollis ham-uh-ME-liss MOL-lis (5–9, 9–5)

Ilex ambigua EYE-leks am-BIG-yew-uh (7–10, 10–7)

I. amelanchier I. am-eh-LANG-kee-ur (6–9, 10–6)

I. curtisii I. kur-TISS-ee-eye (7–10, 10–7)

I. decidua I. deh-SID-yew-uh (5–9, 9–1)

I. laevigata I. lee-vih-GAY-tuh (4–7, 7–4)

I. montana I. mon-TAN-uh (5–7, 7–5)

I. mucronata I. moo-kro-NAY-tuh (3–6, 5–2)

I. opaca I. o-PAH-kuh (5–9, 9–5)

I. pedunculosa I. peh-dunk-yew-LO-suh (6–9, 9–6)

I. serrata I. sair-RAY-tuh (5–7, 7–5)

I. verticillata I. vur-tih-sih-LAY-tuh (3–9, 9–1)

Inula racemosa in-YEW-luh ras-eh-MO-suh (6–9, 9–6)

Magnolia virginiana mag-NOLE-yuh vir-jin-ee-AN-uh
(6–9, 9–6)

Mazus reptans MAY-zus REP-tanz (5–8, 8–5)

Miscanthus sinensis miz-KAN-thus sih-NEN-siss
(6–9, 9–1)

Panicum virgatum PAN-ih-kum veer-GAY-tum (5–9, 9–1)

Photinia davidiana var. undulata fo-TIN-ee-uh
duh-vid-ee-AN-uh var. un-dyew-LAY-tuh (6–10, 9–6)

Rudbeckia maxima rood-BEK-ee-uh MAKS-ih-muh
(4–8, 8–1)

Salix alba var. sericea SAY-likS AL-buh var.
seh-RISS-ee-uh (4–9, 9–1)

Schizachyrium scoparium skits-ah-KEER-ee-um
sko-PAR-ee-um (2–7, 7–1)

Senecio mandraliscae seh-NEE-see-o man-druh-LISS-ee
(10–11, 11–8)

Silphium laciniatum SIL-fee-um lah-syn-ee-AY-tum
(5–9, 9–5)

Stachys byzantina STAY-kiss bih-zan-TY-nuh (4–8, 8–1)

Washingtonia filifera wash-ing-TOH-nee-uh fih-LIF-ur-uh
(8–11, 12–8)

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On the Scent of the Katsura Tree

by Marcel Robischon

MY INTRODUCTION TO the katsura tree started with a tantalizing scent drifting in the air of a municipal park in late fall. The scent reminded me of freshly baked cake, gingerbread, and caramel. After some searching, I discovered that the source of the scent was a small, multi-stemmed tree with a pagodalike crown of elegantly bowing branches. The scent emanated from the tree's small, heart-shaped leaves. Recently fallen, they formed a golden carpet around the trunk. I readily identified it as a katsura tree (*Cercidiphyllum japonicum*, USDA Hardiness Zones 4–8, AHS Heat Zones 8–3).

ASIAN ROOTS

In contrast to the 40- to 60-foot-tall specimens that typically grace American parks and gardens, this tree towers up to 100 feet in its native China and Japan. Curiously, the katsura tree is one of only two species in its genus, and the genus is the sole member of its own family, Cercidiphyllaceae. The genus name refers to the resemblance of the trees' foliage to that of redbuds (*Cercis* spp.)

Introduced to North America in 1865, the katsura tree is a wonderful specimen tree prized for its elegant, densely branched shape. It tends to develop multiple stems and is pyramidal in youth, sometimes spreading broadly at maturity. On older trees, the milky hot-chocolate-colored bark sometimes peels decoratively. The attractive foliage emerges rosy purple in spring, then turns dark emerald in summer and light gold to apricot in fall. Inconspicuous green flowers open in early spring before leaves bud out.



The leaves of the katsura tree provide the fall garden with both color and fragrance.

Selections of weeping forms have resulted in varieties such as 'Morioka Weeping', 'Amazing Grace', and 'Pendula'. A dwarf selection, 'Heronswood Globe', grows to 15 feet with a dense, rounded branching structure.

Plant katsura in a site that has rich, moist, but free-draining soil that is neutral to slightly acidic. It grows best in full sun, but afternoon shade from an open canopy

may be beneficial in the south. Water regularly during establishment and in periods of drought.

TRACKING THE SCENT

The unique autumn scent has given the katsura common names such as *arbre caramel*—"caramel tree" in French—and *kuchenbaum*—"cake tree" in German. The scent varies between different forms of the tree and has been likened to cotton candy, caramel, brown sugar, cinnamon, and strawberries.

Scientists have found that this fragrance is produced by a chemical compound called maltol, which *Fenaroli's Handbook of Flavor Ingredients* (CRC Press, 2004) describes as "a warm, sweet, fruity odor...[maltol] is also reported to have a characteristic caramel-butterscotch odor and suggestive of fruity-strawberry aroma in dilute solution."

The identification of the chemical responsible for the scent raises additional questions. What is the biological function of the odor? What is the evolutionary force that drove the development of such a trait? Even if we never unravel these mysteries, we can be content to enjoy this delightful tree and its annual sweet-smelling gift. 🍯

Marcel Robischon is a biologist and forester. Until recently he worked for the USDA Forest Service in California.

Sources

Forestfarm, Williams, OR. (541) 846-7269. www.forestfarm.com.

Wilkerson Mill, Palmetto, GA. (770) 463-2400. www.hydrangea.com.



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