

The American GARDENER®

The Magazine of the American Horticultural Society

July / August 2014

Striking Salvias

Native Clematis

Herbs for Tea

Landscape Designer
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Photograph by Susan A. Roth

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handsome
has a
whole other
meaning.



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NOTES FROM RIVER FARM

DURING OUR June Board meeting, our Chair for the previous four years, Harry Risetto, passed the proverbial gavel to Amy Bolton, who becomes the 37th Chair of the American Horticultural Society Board of Directors. Amy joins a distinguished line of volunteer leaders from all walks of life and regions of the country who have generously stepped forward to offer their time, energy, and wisdom to the Society. In addition to being a longtime AHS member, Amy served as a garden volunteer at our River Farm headquarters for many years.

Amy's career has focused on communication and informal education. In her current role as Manager of Deep Time Education and Outreach at the Smithsonian National Museum of Natural History in Washington, D.C., her work involves designing and managing educational programs, products, and spaces, strategic planning, instructional design, and project management. In her spare time, Amy is an avid gardener who has no hesitation about getting her hands dirty. Amy's history with the AHS, her professional and personal interest in the natural world, along with her passion for education and communication, make her a particularly appropriate leader for the AHS at this point in time. I look forward to working closely with her as we continue to serve one of America's foremost gardening organizations. For more about Amy and the Board, please turn to page 6.

On a more somber note, during the Board meeting, we received news about the death of Kurt Bluemel, a legendary American plantsman and former AHS Board Chair. For more about Kurt's incredible legacy in the plant world, please turn to page 51.

In addition to our Board meeting, two other notable gatherings of horticultural leaders were held at River Farm over the last few months. In mid-May, we hosted the third annual meeting of the Coalition of American Plant Societies. Involving representatives from a dozen different national plant societies, this meeting featured thought-provoking presentations, an informative exchange of best practices, and tours of Washington, D.C., area gardens. It's energizing to share insights with other passionate devotees of the plant world, and we enjoyed an opportunity to show off River Farm's beautiful gardens and vistas while we were at it!

Then, in early June, we honored this year's recipients of the AHS's Great American Gardeners Awards and AHS Book Awards. It's always gratifying to see how much the recognition means to award recipients, and to witness their heartfelt appreciation for their own mentors, families, and friends. For me, the event underscored how important it is to recognize and promote excellence in American horticulture.

Reflecting on the many distinguished individuals who have received AHS awards over the years, sometimes I wonder, "What are they doing now?" As you turn the page and explore this issue of *The American Gardener*, you will find an answer to this question for one of the recipients: Julie Moir Messervy, who received our Landscape Design Award in 2005. Other articles spotlight native clematis, provide tips for growing and using plants for herbal teas, and feature colorful late summer-blooming members of the genus *Salvia*.

As always, thank you for being a part of our AHS family and happy gardening!

Tom Underwood
Executive Director



Tom Underwood

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RIVER FARM The AHS headquarters at River Farm is open 9 a.m. to 5 p.m. weekdays year-round (except Federal holidays), and 9 a.m. to 1 p.m. Saturdays from April through September. For information about events, rentals, and directions, visit the About River Farm section of www.ahs.org.

TRAVEL STUDY PROGRAM Visit spectacular private and public gardens around the world through the Society's acclaimed Travel Study Program. For information about upcoming trips, call (703) 768-5700 ext. 119, or visit the Gardening Programs section of www.ahs.org.

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

News from the AHS

July / August 2014

PROGRAMS • EVENTS • ANNOUNCEMENTS

AMY BOLTON BECOMES NEW BOARD CHAIR

AMY BOLTON'S first involvement with the American Horticultural Society (AHS) came in 2000, when she became a garden volunteer at the AHS's River Farm headquarters in Alexandria, Virginia. This past June, after several years as a member of the AHS Board of



The AHS's new Board Chair Amy Bolton accepts the gavel from outgoing Chair Harry Risetto.

Directors, Bolton took her engagement with the Society to new heights by becoming the new Board Chair.

Bolton is an education specialist at the Smithsonian National Museum of Natural History in Washington, D.C., a natural professional fit given her personal interests. "I've always loved the outdoors," says Bolton, recalling frequent family trips to national parks like Yellowstone and the Grand Canyon during childhood. "My mom is a gardener, so I've always been around gardening." Now a Master Gardener, she calls her own garden in Falls Church,

Virginia, "holistic" because of its role as a habitat for the wildlife that visit. "It's not always beautiful, but it supports a whole system of organisms, including myself," she says.

As Board Chair, Bolton is excited to work on developing a variety of educational programs for the Society. "This national organization can reach so many people," says Bolton, "people who live in cities or in the country, who are young or old, who are professional horticulturists or amateurs, and get them interested in plants in ways they might have never thought of before."

At the June meeting, the AHS also welcomed three new directors to the Board: **Tom Johnson**, principal with the Washington, D.C.-based architecture firm of Martinez + Johnson; **Nancy Hargroves** of Manakin Sabot, Virginia, who currently serves as second vice president of the National Garden Clubs; and **Louis B. Lynn**, president and founder of Columbia, South Carolina-based ENVIRO AgScience.

"Tom, Nancy, and Louis each bring very different and valuable perspectives to our Board," says AHS Executive Director **Tom Underwood**, "We are honored by their willingness to join this dedicated group of people who generously share their time and talents with the Society."

JOIN THE CONVERSATION ON TWITTER

COORDINATED BY **Corona Tools**, #plantchat is a weekly one-hour Twitter conversation about horticulture. Once a month, the AHS is the guest host, rotating with **Proven Winners**, **Rodale Institute**, and **Emergent** (a group representing young horticulturists). Type in the hashtag #plantchat on Mondays at 2 p.m. Eastern Time to join the discussions about sustainable gardening, ornamental and edible plants, career paths for young horticulturists, and other hot horticultural topics of the day. Participants chime in from all over the country with both questions and advice. Weekly topic information is posted at <http://coronatoolsusa.com/giln-schedule>.

Additionally, the AHS has three different Twitter accounts tailored to various audiences. @AHS_Gardening tweets about national garden news and information; @AHS_RiverFarm provides updates on what's happening at the Society's headquarters

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and in the Washington, D.C., area; and @AHS_NCYGS focuses on gardening with children and the AHS's annual National Children & Youth Gardening Symposium.

COALITION OF AMERICAN PLANT SOCIETIES MEETS AT RIVER FARM

IN EARLY MAY, the third annual meeting of the Coalition of American Plant Societies (CAPS) took place at the American Horticultural Society's River Farm headquarters in Alexandria, Virginia. This year, representatives from the national African violet, camellia, chrysanthemum, conifer, daffodil, dahlia, herb, iris, orchid, rhododendron, and rose societies were in attendance. The group discussed the evolving relevancy of their organizations and exchanged ideas for effective outreach, membership recruitment, and fundraising.

Guest speakers included **Holly Shimizu**, recently retired executive director of the United States Botanic Garden, who spoke about cultivating a passion for plants; and **Kelly Norris**, an active member of the American Iris Society and horticulture manager at the Greater Des Moines Botanical Garden in Iowa. During his presentation, Norris noted that plant societies "provide instrumental plant education to the public and encourage innovation and collaboration among horticultural professionals and amateurs alike."



On a tour of River Farm, CAPS participants pause to admire the bearded iris collection donated by American Iris Society President Jim Morris.

Over the next year, the group plans to create a CAPS website and build a social media presence. The 2015 meeting will be hosted by the Herb Society of America in Kirtland, Ohio.



THE AMERICAN HORTICULTURAL SOCIETY TRAVEL STUDY PROGRAM UPCOMING TOURS



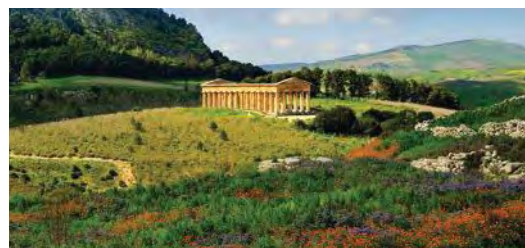
Gardens, Wine, and Wilderness: A Tour of New Zealand January 10–February 1, 2015

New Zealand is home to some of the most spectacular landscapes on earth as well as a unique culture and history. On this trip we will visit must-see public gardens and exclusive private venues while enjoying the viticulture and hospitality of the North and South Islands. The trip will be led by native Kiwi Richard Lyon and hosted by Holly Shimizu.

Additional information and registration forms for all trips are available online. Accommodations are limited; please make reservations early.

SOLD OUT Gardens of Normandy with Paris
September 9-19, 2014

A Musical Journey of Historical Gardens from Lisbon to Rome April 10–21, 2015



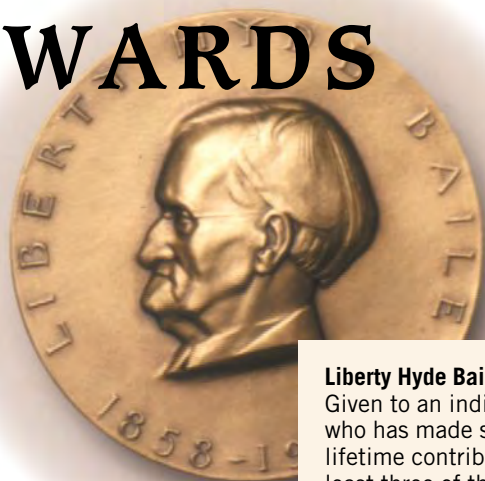
Join us for this unique Mediterranean cruise to enjoy fine gardens and sublime chamber music. Host Katy Moss Warner, AHS President Emeritus, will regale us with information on the historic gardens, while John Steward of Harvard University will provide insight on the classical music we will enjoy along the way.

For more information about the AHS Travel Study Program, visit www.ahs.org/gardening-programs/travel-study or contact Eleanor Nelson at enelson@ahs.org; (703) 768-5700 ext. 132.

Participation in the Travel Study Program supports the AHS and its vision of *Making America a Nation of Gardeners, A Land of Gardens.*

Call for Nominations

AMERICAN HORTICULTURAL SOCIETY 2015 GREAT AMERICAN GARDENERS AWARDS



2014 Paul Ecke, Jr. Commercial Award
Dale Bachman

It's an Honor...

Since 1953, the American Horticultural Society's Great American Gardeners Awards Program has recognized individuals and institutions that have made significant contributions to American horticulture. Nominations are now being accepted for 2015.

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

For a nomination form and additional information, visit www.ahs.org or call (703) 768-5700 ext. 121.

Nominations must be submitted by September 30, 2014.



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Liberty Hyde Bailey Award

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

Luther Burbank Award

Recognizes extraordinary achievement in the field of plant breeding.

Paul Ecke Jr. Commercial Award

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

G. B. Gunlogson Award

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

Horticultural Therapy Award

Recognizes significant contributions to the field of horticultural therapy.

2015 AWARDS

Landscape Design Award

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

Meritorious Service Award

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

B. Y. Morrison Communication Award

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

Professional Award

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

Jane L. Taylor Award

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

Teaching Award

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

Urban Beautification Award

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

Gifts of Note

In addition to vital support through membership dues, the American Horticultural Society relies on grants, bequests, and other gifts to support its programs. We would like to thank the following donors for gifts received between May 1, 2014, and June 30, 2014.

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

AHS 2014–2015 NATIONAL EVENTS CALENDAR

AUGUST 15–17. **Homestead Resort's In the Garden Weekend.** Hot Springs, Virginia.

SEPTEMBER 9–19. **Gardens of Normandy with Paris, France.**

AHS Travel Study Tour. SOLD OUT

SEPTEMBER 20. **AHS Annual Gala.** River Farm, Alexandria, Virginia.

OCTOBER 2–4. **America in Bloom Symposium and Awards.** Philadelphia, Pennsylvania.

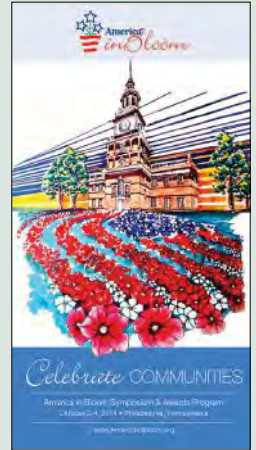
DECEMBER 1–24. **Holiday Trees Display.** River Farm, Alexandria, Virginia.

DECEMBER 13. **AHS Holiday Open House.** River Farm, Alexandria, Virginia.

JANUARY 10–FEBRUARY 1, 2015.

Gardens, Wine, and Wilderness:

A Tour of New Zealand. AHS Travel Study Tour. New Zealand.



HONORING HORTICULTURAL GIANTS

IN JUNE, the AHS welcomed this year's Great American Gardeners Award and Book Award recipients to River Farm. These individuals and organizations have made exceptional contributions to horticulture in an array of disciplines including research, landscape architecture, floral design, communications, and business.



2014 Liberty Hyde Bailey award winner Paul W. Meyer, center, with AHS Awards Committee Chair Jane Diamantis and AHS Executive Director Tom Underwood during the awards ceremony in June

Among the honorees in attendance were **Marcia Eames-Sheavly**, an educator at Cornell University in Ithaca, New York, who received the Teaching Award; and **Dale Bachman**, pres-

ident of Bachman's garden center chain based in Minnesota, whose high standards of excellence earned him the Paul Ecke, Jr. Commercial Award.

The AHS's highest honor, the Liberty Hyde Bailey Award, went to **Paul W. Meyer**, executive director of the Morris Arboretum, a professor of urban horticulture at the University of Pennsylvania, and a noted plant explorer. This award is presented for significant lifetime achievements in a variety of horticultural fields.

To see a complete list of this year's winners, and to nominate recipients for 2015, visit www.ahs.org/awards.

GARDENING SYMPOSIUM AT THE HOMESTEAD

FROM AUGUST 15 to 17, the Omni Homestead Resort, located in the heart of the Allegheny Mountains in Hot Springs, Virginia, will host its annual "In the Garden" weekend. This year's event, cosponsored by the AHS, will feature presentations on garden design, landscape photography, and tropical gardens in the Caribbean. **Ed Clark**, president of the Wildlife Center of Virginia and host of the Animal Planet television series, "Wildlife Emergency," will lead a session on designing gardens with



The Omni Homestead Resort

wildlife in mind. Participants will also tour the Homestead's spa garden and have a chance to relax in the warm mineral waters of the springs Thomas Jefferson once frequented. A wine tasting and a cooking demonstration with the Homestead's executive chef are included with registration. To register, call (800) 838-1766 or visit www.thehomestead.com.

AMERICA IN BLOOM SYMPOSIUM AND AWARDS CEREMONY

AMERICA IN BLOOM (AIB), a nonprofit community beautification organization, will recognize the American Horticultural Society's efforts to create a nation of gardeners with its Spirit Award, to be presented at AIB's yearly symposium and awards ceremony from October 2 to 4 in Philadelphia, Pennsylvania. The award is given to organizations whose missions and activities are consistent and complementary to the AIB's nationwide beautification goals. Past recipients of the America in Bloom Spirit Award include the National Garden Bureau and the American Public Gardens Association.

AIB will present a number of other awards to communities that participated in its annual beautification program and exhibited the most innovative and collaborative efforts to restore their natural and historical environments, improve resource management, and implement creative landscape designs.

In addition to award presentations, symposium attendees can explore Philadelphia's gardens on guided tours and hear from inspiring speakers. The keynote address will be given by **Harris Steinberg**, the founding executive director of Penn Praxis, an urban design firm comprised of University of Pennsylvania stu-

dents and professors. Steinberg will address the design challenges his firm encounters for community-oriented urban spaces.

For more information, visit www.americainbloom.org.

AHS ONLINE AUCTION OPENS IN SEPTEMBER

ON SEPTEMBER 15, the AHS will launch its annual online auction of unique garden experiences as a prelude to the annual gala, which will be held on September 20 at River Farm. Reflecting this year's gala theme, "Glory in the Garden," the online auction will feature private tours of several notable public gardens led by the gardens' directors or other key staff members. Proceeds of the auction will support the stewardship of River Farm and the Society's national outreach programs. Visit www.ahs.org in September to see the list of garden experiences and to place your bid.

SAVE SEEDS TO SHARE

DO YOU HAVE plants that came to you through someone else—perhaps an heirloom tomato from your grandmother or the cosmos a friend gave you? Now it's time to start thinking about sharing seeds of these plants with other passionate gardeners. The annual AHS Seed Exchange allows members to share seeds from their gardens with each other. Over the years, AHS members have exchanged hundreds of different plant varieties, including some rare and unusual species. Look for a seed donation form in the next issue of *The American Gardener*, and don't forget that those who donate seeds get first pick.

News written by Editorial Intern Sarah Miller.

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21st Annual Gala

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Spectacular SALVIAS

BY DAVID J. ELLIS

Looking for something to liven up the late summer and fall garden? Add floral fireworks from the genus *Salvia*.



IN LATE SUMMER, the heat and humidity in the Washington, D.C., area seem to drain all the color out of my garden, just as it saps the energy from anyone brave enough to venture outdoors. The beds and borders take on a monochromatic dull green hue, with flowers already spent or not yet ready to open.

I needed to add something that would provide color during the dog days, filling the

floral breach before the cavalry arrived in the form of fall-blooming asters, toad lilies, and hardy mums. And a few years ago, during a late summer visit to the Dallas Arboretum and Botanical Garden, I found inspiration in the salvias I saw blooming in sheer defiance

This display of scarlet or tropical sage features the seed-grown cultivar 'Lady in Red' along with selections that have white and bicolor flowers.

of the oppressive Texas heat. As a bonus, these beautiful plants are magnets for a wide range of pollinators, from hummingbirds to bees, butterflies, and moths, adding even more color and movement to the garden.

The primary salvia I added to my garden is Mexican bush sage (*Salvia leucantha*), which is not hardy in the mid-Atlantic, where I live, but worth growing for its spectacular season-closing floral

display. This year, I'm trying two new hybrid selections developed from the same breeding program as 'Wendy's Wish', which is described later on. Part of the Southern Living Plant Collection, they are 'Ember's Wish' (bright orange flowers) and 'Love and Wishes' (purple flowers). They were just starting to put out flowers in early summer, so I will have to wait for the fall to see them at their peak.

While I'm eager to try even more salvias, I'm aware it is all too easy to get carried away by this genus. "Salvia is a collector's dream," writes perennial plant guru Allan Armitage in his omnibus *Manual of Herbaceous Perennial Plants*. "To collect them all is impossible but the trying is not. Enough ornamental species are available today that the collector can enjoy this hobby for a lifetime." If you really want to get hooked on the genus, track down a copy of *The New Book of Salvias*, written by Californian Betsy Clebsch, who is one of the preeminent experts on this wonderful plant.

Recently, I polled some fellow gardeners who have grown some of the summer- and fall-blooming species and selections. I not only got good advice for my mid-Atlantic garden, but suggestions for salvias suited to gardens in other regions of the country. Here are their recommendations for salvia species and selections to light up the late-summer garden.

Salvia coccinea (USDA Hardiness Zones 8–11, AHS Heat Zones 11–5) Native to Mexico but widely naturalized in subtropical regions, scarlet or tropical sage is a short-lived tender perennial usually grown as an annual. It grows two to four feet tall and up to two feet in diameter with bright pink to scarlet flowers from midsummer into fall. Some cultivars offer white or bicolor flowers, too. "It re-seeds well, yet politely, in the Southeast," says Rita Randolph, owner of Randolph's Greenhouse in Jackson, Tennessee. "And crosses can be easily made if you like to play with such things." Randolph is partial to the selection 'Forest Fire' for its dark stems and vibrant red color.

Scott Calhoun, a landscape designer and garden writer in Tucson, Arizona, likes to use scarlet sage in his designs. "It looks great poking up among grasses," he

A BIG FAMILY

The most familiar salvias in American gardens are common sage (*Salvia officinalis*)—a kitchen garden staple that comes in a range of decorative selections—and two time-honored bedding plants: mealycup sage (*S. farinacea*) and scarlet sage (*S. splendens*). But those species are just the tip of the salvia iceberg.



Two salvias that have a long tradition as bedding plants are scarlet sage (*S. splendens*), above center, and mealycup sage (*S. farinacea*), above left, shown growing with dusty miller.

Comprised of close to 1,000 species, not to mention numerous selections and hybrids, the genus *Salvia* is the largest member of the mint family (Lamiaceae). Most salvias are annuals, biennials, or herbaceous perennials, but some are deciduous or evergreen subshrubs in their native habitat. The majority of the species are native to Central and South America, but they are also found in Asia, Africa, and Europe. There are some 40 or 50 species native to North America, and many of the Mexican species are quite adaptable to garden culture, especially in the South, Southwest, and California.

In common with other mint relatives, salvias have square stems and opposite leaves. The foliage is usually aromatic if bruised or crushed, which is a good tip-off that the genus has a long history of medicinal and herbal uses—and also explains why salvias tend not to be bothered by some animal and insect pests. Salvias typically have spiky inflorescences composed of whorls of tubular flowers. Individual flowers have two lips that differ slightly in length and shape. Some salvias bloom in spring to early summer, but the ones discussed in this article flower in late summer and autumn. —D.J.E.

says. Where hardy, it should be cut back at the end of the growing season to stimulate new growth. One caveat is that it has shown a tendency to become weedy in tropical regions, including Hawaii.

Salvia microphylla (Zones 8–10, 12–5) An evergreen shrub in its native range from southern Mexico across the border into southern Arizona, cherry sage is usually

grown as an annual. The species is quite variable in shape and flower color and crosses easily with other salvias, so several selections have been introduced. 'Hot Lips', a compact cultivar with striking red-and-white flowers, drew praise from several of the people I spoke with. "Hummingbirds and butterflies are constant visitors to this bicolor salvia, which is a showstopper in my garden," says Jim Long, owner of Long Creek Herbs

SAGE ADVICE

Texas, the Southwest, and southern California are prime areas for growing salvias, many of which are well adapted to sandy soils and hot, dry summers. A longer growing season makes the Southeast and South good areas to grow fall-blooming species. In the Upper Midwest and New England, where the growing season is shorter, some of the subtropical salvias aren't able to come into full bloom before a killing frost.

In the coastal regions of the Pacific Northwest, frequent rainfall and cool temperatures make growing salvias challenging. "Sages that have a strong need for good drainage or are frost-tender don't do well here," says Genevieve Schmidt, a landscape designer and garden writer in Arcata, California, located near the Oregon border. In the Mountain West, where winters are harsh and the growing season is short, all but the hardiest salvias must be grown as annuals.

No matter where you live, appropriate site selection is key. Salvias require a sunny location with free-draining soil and good air circulation. Where summers are very hot, they may tolerate part shade. Salvias generally do best in a near neutral soil, but some Western natives will thrive in slightly alkaline sites.

Some salvias are susceptible to powdery mildew, especially in regions with high humidity in summer. Other than this, they are reasonably trouble free. In *The New Book of Salvias: Sages for Every Garden*, author Betsy Clebsch writes, "I believe the volatile leaf oils and other chemicals in salvias not only encourage good health but also discourage predation by insects, butterflies, snails, slugs, birds, and even deer."

Where hardy, salvias should be cut back in late winter to stimulate vigorous new growth and enhanced flowering. The ones that grow large, like azure salvia, can be cut back in early summer to keep them more compact.

Some salvias can be easily grown from seed sown in spring. But because salvias hybridize easily, purchase specific selections to ensure you are getting what you want. —D.J.E.



Salvias come in a range of habits, from bushy cherry sage selection 'San Carlos Festival', above, to upright, arching 'Ultra Violet', left, a hybrid of autumn sage and *Salvia lycioides*.

in Blue Eye, Missouri, who grows it as an annual. Randolph says 'Hot Lips' is faring "extremely well" in her Tennessee garden despite the recent severe winter.

Salvia greggii (Zones 7–10, II–4)

Native to western Texas and northern Mexico, autumn sage is a shrubby plant that grows to two or three feet tall and slightly broader, sometimes developing a mounded habit. Its flowers are typically scarlet to orange-red, but they can also be seen in hues from purple to white. "Many autumn sage selections are fully

hardy, tough, heat-tolerant plants and even seem to show some evergreen qualities in mild winters here in Tennessee," says Randolph. David Salman of High Country Gardens, a mail-order nursery in Santa Fe, New Mexico, likes the selection 'Ultra Violet', hardy to USDA Zone 5b, which is a chance cross between *Salvia greggii* and *S. lycioides*. "This hardy hybrid native sage blooms from midsummer into October with numerous violet-pink flowers," he says. "The nectar-rich flowers attract hummingbirds and the aromatic foliage repels browsing animals." Autumn sage should be pruned hard in early spring to keep it in shape and prevent it from becoming too woody, advises Randolph. It can also be cut back in early summer to encourage bushiness.

Salvia guaranitica (Zones 7–10, II–6)

A South American native, blue anise sage is surprisingly root hardy and can be enjoyed as an annual in regions with moderately long growing seasons. It can grow to five or six feet tall and wide in the right site and will flop if unsupported. The large, brilliant blue flowers open individually on footlong spikes from late summer until frost, and its large



Late-summer-blooming salvias such as blue anise sage, left, and Mexican bush sage, above, create a spectacle appreciated not only by gardeners, but by hummingbirds and many other kinds of pollinators.

green leaves are also attractive. Randolph, who has grown dozens of salvia species in Tennessee, says this is her favorite salvia “because of its hardy nature and vigorous growth habit. Once it gets started, there’s always plenty for hummingbirds and still enough to dig and share with other gardeners,” she says. Where hardy, it should be cut back hard each winter to prevent development of woody stems.

Salvia leucantha (Zones 10–11, 12–5)
Known as Mexican bush sage or velvet sage, this salvia is an evergreen shrub in its native habitat in Mexico. A vigorous grower, it forms a clump three or four feet tall and even wider, and it tends to

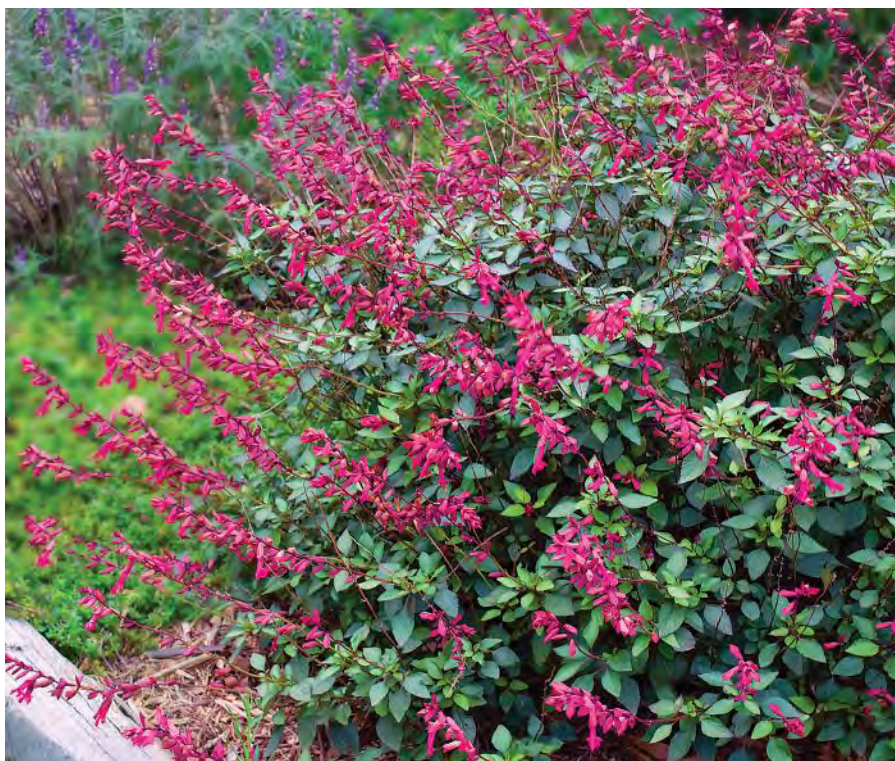
sprawl unless supported. From late summer through frost, its rich purple and white flowers bloom on terminal spikes. Of the several cultivars available, ‘Midnight’, which has deep purple flowers, is generally considered the best.

“Although Mexican bush sage is not hardy here in the Upper Midwest, I think it’s worth growing because it’s such a great addition for autumn garden color—and bunnies don’t eat it,” says Susan Appleget Hurst, a garden writer in Winterset, Iowa. “I love the huge velvety flower spikes, which are so stunning in late fall when there is little else blooming with such intense color.”

Randolph says Mexican bush sage and its cultivars “grow well in the South and

provide good fresh flowers when everything else is about bloomed out!” She recommends rooting cuttings in early fall to winter over for the following year.

Salvia azurea (Zones 5–9, 10–1)
Among the hardiest and at the same time most heat tolerant of the late-blooming salvias, blue sage is native from Minnesota and Nebraska down through the Southeast and Texas. It grows upright to three or four feet tall, with spikes of cobalt-blue flowers appearing in late summer. *Salvia azurea* var. *grandiflora*, a botanical variety with slightly larger flowers that occurs in a more westerly range, can sometimes be found under



Blue sage (*Salvia azurea*), left, is among the hardiest of the sages, while the hybrid 'Wendy's Wish', right, is mostly grown as an annual.

the name pitcher sage. In his book, *Guide to Growing and Propagating Wildflowers of the United States and Canada*, William Cullina notes that blue sage's new growth emerges late in spring and tends to be floppy unless staked. "If you tip-prune the plants in late spring and again in midsummer, site them in full sun, and do not overdo the fertilizer, they will form very satisfactory bushy clumps," he writes.

Salvia reptans (Zones 8–10, 10–6) A perennial species native to mountainous areas of Texas, Mexico, and Guatemala, west Texas grass sage is a favorite of David Salman. "It explodes into color in early September with hundreds of deep cobalt-blue flowers," says Salman, who has grown and selected salvias for decades. "The bright green grassy leaves are narrow and grasslike and have a strong scent that resists browsing ani-

mals. Best of all, the hummingbirds love it!" It grows to three feet, but its leaves and stems tend to be floppy, so it's a good choice on a slope or at the edge of a wall. Where hardy, it will develop woody stems, so it should be cut to the base each year in late winter.

Salvia 'Wendy's Wish' (Zones 9–10, 11–4)

Introduced in 2009, this selection is a spontaneous garden hybrid found growing near a Mexican sage (*S. mexicana*). Where it is hardy, it develops into an evergreen shrub about three or four feet tall and slightly less in diameter, but it can be grown as an annual. Its flowers offer an unusual bicolor effect, with the deep magenta flower tubes emerging from pinkish-brown calyxes. The flowers bloom from midsummer through fall. "Wendy's Wish' always looks great well into the autumn here," says Kelly D. Norris, horticulture manager at the Greater Des Moines Botanical Garden in Iowa. Randolph describes it as "a heat-loving hummingbird magnet" and praises it for its clean, glossy foliage and sturdy upright habit.

David J. Ellis is editor of The American Gardener.

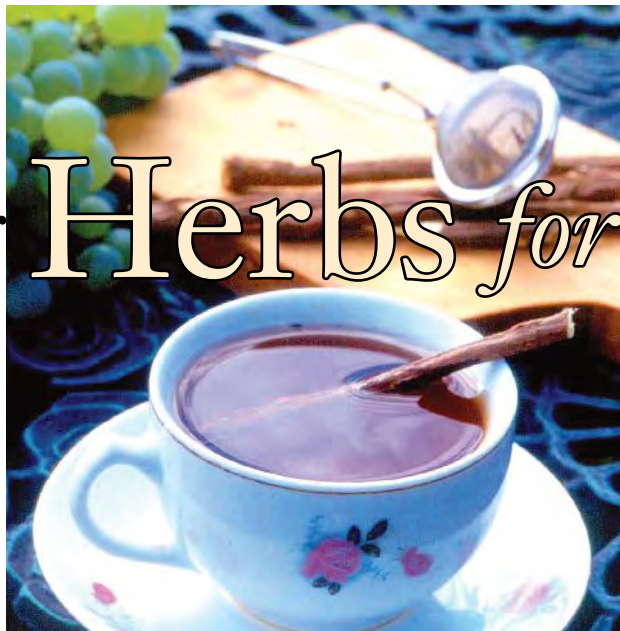
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growing Herbs for Tea



MY GARDENS, which supply me with an abundance of food, are also the source of a remarkable variety of delicious beverages. Herbal teas are refreshing either hot or cold and can be prepared from freshly harvested leaves and flowers or dried for later use. And a few herbal teas are made from the dried roots or bark of plants.

According to the Tea Association of the USA, tea is defined as “the leaf and extracted liquor of the shrub *Camellia sinensis*.” An evergreen shrub originally native to eastern Asia, tea is now widely grown in mountainous regions that lie between the tropics. It thrives in USDA Hardiness Zones 8 to 10, AHS Heat Zones 10 to 7. Teas vary in how they are processed, which gives rise to such types as black,

Herbs that can be used as ingredients in teas are a delicious addition to the summer garden.

BY KRIS WETHERBEE

green, white, and oolong teas. Flavors also vary with the region in which the tea is grown and the time of year it is harvested.

While I haven't been able to grow *Camellia sinensis* in my Oregon garden, plenty of herbs and other common garden plants provide a ready source for herbal teas. In Europe, such beverages are often referred to as tisanes. A multitude of commercially prepared herbal teas are available at just about any grocery store these days. However, it's easy to grow your own tea garden, from which you can create your favorite herbal blends anytime you're in the mood. You may have plants growing in your garden right now that lend themselves well to herbal teas.

Many common culinary herbs such as rosemary, sage, lavender, thyme, and basil



Above: In addition to the leaves, the tufted blooms of beebalm (*Monarda didyma*)—which may be red, pink, purple, or white—are used to make a spicy, citrus-flavored tea. Top: The root of *Glycyrrhiza glabra* is used to brew a refreshing cup of licorice tea.

contribute wonderful flavors to blended herbal teas. Try spicy 'Siam Queen' basil for its clovelike flavor. Other aromatic favorites that you might already be growing for their ornamental appeal include lemon verbena, beebalm, and scented geraniums. Leaves and fruit from blueberries, strawberries, blackberries, and raspberries can be tossed into the teapot as well.

HERBAL TEA BLENDS

Growing your own herbal teas gives you the chance to experiment and come up with your own signature blend. These tasty herbal tea combinations listed below will help you get started on finding a favorite.

- Lemon verbena, chamomile
- Beebalm, blueberry leaf, 'Siam Queen' basil
- Pineapple sage, raspberry leaf, rose hips
- Chamomile, apple mint, cinnamon basil
- Lemon verbena, rosemary
- Anise hyssop, lemon balm, lemon thyme
- Orange mint, beebalm
- Licorice, orange mint, cinnamon basil
- Licorice, lemon balm
- Pineapple sage, lemon verbena

I always have an abundance of culinary herbs and berry plants at my disposal, and I count myself fortunate because blackberries, lemon balm, and rosehips grow wild on my property. But to ensure a ready supply of the best choices for making single ingredient herbal teas—or the primary ingredients in a blend—I recommend making room for the following tried-and-true plants in your garden.

ANISE HYSOP Anise hyssop (*Agastache foeniculum*, Zones 4–11, 12–5) is a member of the mint family (Lamiaceae), and despite its common name, it is not a true hyssop (*Hyssopus* spp.). The subtle licorice flavor of this North American native was long used in a tea by northern Plains Indians, who introduced this plant to settlers. Both leaves and flowers can be harvested for tea.



Anise hyssop, a member of the mint family, makes a full-flavored tea with notes of mint and licorice. It blends well with lemon-flavored herbs such as lemon verbena.

With its upright habit, neatly notched green leaves, and spikes of lilac-blue flowers, anise hyssop makes an attractive addition to the garden as well as a delicious tea. Reaching a height of three to four feet, this hardy perennial is well suited to the back of a mixed border where its flowers appear from summer to early fall, providing a haven for bees and other pollinators. Plants return each year and often self-sow, although it's not invasive. It grows well in full sun or part shade and prefers a rich, loamy soil. Plants are easily started from seed and will bloom their first year.

BEEBALM Also known as Oswego tea, beebalm (*Monarda didyma*, Zones 3–9, 9–1) is another mint family member na-

tive to North America. It was introduced to American colonists by Native Americans, who used it both as a beverage and medicine, and it became the tea of choice for colonists just before the Revolutionary War, when heavy taxes imposed by the British led to a boycott on imported tea.

Beebalm is a two- to four-foot-tall perennial with a bushy habit. It is one of my favorite garden plants, with its sensational summer flowers in shades of red, pink, lavender, and white. Each flower stem is topped with a whorl of flowers surrounded by showy bracts. It grows best in a fairly rich, moist soil that's slightly acidic, and is adaptable to full sun or part shade; gardeners in the South, however, should protect it from the hot summer sun with some



Above left: One of two species used for chamomile tea, *Matricaria recutita* is a self-sowing annual. Above right: The leaves of lemon verbena—a semi-evergreen woody shrub native to South America—are essential for providing a burst of citrus flavor in many herbal tea blends.

afternoon shade. Although both leaves and flowers can be used for tea, I get such enjoyment watching hummingbirds sip from the flowers that I tend to leave the colorful blooms and just harvest the leaves. Use them fresh—they make a lovely sun tea with mint and citrus flavors—or dry to create exciting blends.

CHAMOMILE Made from the flowers of two different plants, chamomile tea is highly esteemed for its relaxing, soothing effects and its subtle apple flavor. Native to Europe and western Asia, German chamomile (*Matricaria recutita*, Zones 0–0, 8–1) is a vigorous self-seeding (be forewarned) annual that grows two to three feet tall. Roman chamomile (*Chamaemelum nobile*, Zones 6–9, 9–6) is native to western Europe. It is a low-growing perennial groundcover that reaches a foot tall when flowering.

Both are easily started from seed and have miniature daisylike flowers with a fresh apple scent and feathery foliage. Although the Roman's fragrance is stronger, you'll get more flowers (and a greater har-

vest) from the German. Both need full sun and will tolerate most soil types as long as it's well drained. Harvest flowers anytime the white petals appear and use them fresh or dried. *A word of caution:* The pollen of both chamomiles has been known to cause allergic reactions, particularly for those who have an allergy to ragweed.

LEMON VERBENA When it comes to fresh citrus scents, lemon verbena (*Aloysia triphylla*, Zones 8–11, 12–8) is tops, and the invigorating lemony aroma holds just as true in the taste of the brewed leaves. Native to Chile and Argentina, lemon verbena is a semi-evergreen woody shrub that bears glossy, bright green, linear leaves. In my garden it grows to five feet and will sometimes overwinter; however, in frost-free areas, the shrub can easily grow 10 to 15 feet tall.

Site it in full sun in an area protected from damaging winds and in a rich, moist, well-drained soil. It also makes an excellent container plant, which offers the advantage of allowing you to grow it close at hand in summer and then bring it indoors for winter in regions where it isn't hardy.

The fresh leaves make a refreshing sun tea. For drying, harvest woody stems, hang them upside down, and strip the leaves after they have dried.

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LICORICE European or cultivated licorice (*Glycyrrhiza glabra*, Zones 8–10, 10–3), native from the Mediterranean to southwest Asia, is one of the most widely consumed herbs in the world. A perennial member of the legume family (Fabaceae), it produces attractive, pealike, lavender flowers in late summer, but it's the roots that are harvested for the distinct flavor they lend to many candies and confections, as well as for a variety of medicinal uses. The roots make a superb tea by themselves or blended with other herbs. I have only used the roots in dried form.

Grow licorice in full sun and well-drained, rich, moist soil. Harvest roots from three- to four-year-old plants in late autumn or early winter after the tops have dried. It's best to cut them into sections to speed up drying time and reduce the chance of mold. Be sure to leave some of the root in the ground to allow sprouts to grow for the following year's crop.

ORANGE MINT A type of peppermint with garden origins, orange mint (*Mentha x piperita* var. *citrata*, Zones 5–11, 11–1) has a delightfully distinct citrus-mint fragrance and flavor. Though not as invasive as some of the more common mints, it will spread readily in rich, moist soil, supplying plenty of leaves to harvest for your fresh and dried use—and for your neighbors as well! Unless you live in a dry region with lean soil—or desire a naturalized groundcover—grow it in a container or use a barrier to prevent the rhizomes from spreading. It is adaptable to full sun (especially in cool regions) or part shade.

Growing to 24 inches tall, this mint's mahogany stems, purple-tinged leaves, and lavender summer flowers are quite striking as a backdrop for other plants.

PINEAPPLE SAGE Pineapple sage (*Salvia elegans*, Zones 8–11, 12–1) really does smell just like pineapple. What a magnificent way to bring the fruity treats of the tropics right into your own home! Native to Mexico and Guatemala, this herbaceous perennial or subshrub is equally as magnificent and stunning in the garden.

This herb thrives in a richer, more moist soil than its cousin common sage (*Salvia officinalis*). Where it is not hardy, plants can be purchased in spring and grown as annuals. Give it plenty of room—it grows three to



Above: Easy-to-grow orange mint can spread quickly like other mints, so it is often grown in containers. Top: Licorice has attractive pealike flowers, but it's the roots that are used for tea.

BREWING HERBAL TEAS

Herbal teas should be brewed gently to allow their flavor qualities to develop just right. Always determine the strength or weakness of your tea by taste and not by sight.

Whether you use fresh or dried leaves and/or flowers is mostly a matter of the time of year. For a few herbs, however, fresh wins out by a pinch for stronger flavor for making sun teas. These herbs include beebalm, lemon verbena, and pineapple sage. Whether you're using fresh or dried ingredients, here are some basic steps to help you brew the perfect hot or iced tea.

HOT TEA

1. Release the herb's oils by gently bruising the leaves with your fingers, or use a cocktail muddler. Put crushed herbs in tea balls, infusers, or tea bags. If brewing in a teapot, the herbs can be added loose.
2. For each cup of hot water, add one teaspoon of dried herbs or one tablespoon fresh herbs. Amounts can be adjusted to suit your taste.
3. Pour boiling water over the tea in the teapot or cup.
4. Let steep for four to six minutes.
5. Pour into cups (strain first if loose herbs were used) and add lemon or sweetener if desired.

SUN TEA

1. Loosely fill a large glass container half full with your choice of fresh herbs. If using dried herbs, add about two tablespoons of herbs per cup of water.
2. Fill container with water, cover with lid, and set in sun for four to eight hours.
3. Strain into a tall pitcher and pour in ice-filled glasses. Add a sprig of mint, pineapple sage, or nasturtium flowers for garnish. —K.W.

five feet tall and nearly as wide and produces loads of fragrant and flavorful gray-green leaves. In late summer, each stem is decorated with a loose panicle—up to eight inches long—of brilliant red tubular flowers. I love to use the fresh leaves and flowers for sun tea. Since the mild pineapple flavor is retained when dried, it makes an excellent hot tea, by itself or in blends.

GATHERING THE HARVEST

While tomatoes left on the vine a little too long will soon turn to mush, and a prime, full head of lettuce can quickly bolt, herbs, for the most part, are ready when you are. You can harvest a lot or a little, whatever suits your needs best.

Research indicates that herbs are at their peak of flavor early on a sunny morning when the dew has dried off their leaves. But, don't worry, the herbs will still be plenty flavorful if, heaven forbid, you are forced to pick them in the afternoon or the evening (or even on a cloudy day). My rule of thumb is to harvest them when it's convenient!

Herbs flourish with frequent harvests, which encourages the plants to grow

big and bushy. Allow new plantings to become established first; once they take hold you can harvest unsprayed herbs anytime in the spring, summer, or fall. Light harvests of individual leaves or short stems can be done throughout the



Harvest flowers of Roman chamomile on a dry day when the blooms are fully open.

growing season while heavier cuttings will usually give you two to three big harvests. When harvesting large amounts, cut the plants down to within a few inches of the ground, leaving several sets of leaves at the base.

Take advantage of the end-of-season harvest by drying your herbs for that warming winter tea. Herbs can be dried in a food dehydrator, in small bundles hung upside down, or on drying racks or screens. Slow, steady drying is best. Remember to keep the humidity low, allow plenty of air circulation, and keep them out of sunlight (the darker the better). Check herbs while drying—they are ready when the leaves are crisp and crush easily between your fingers.

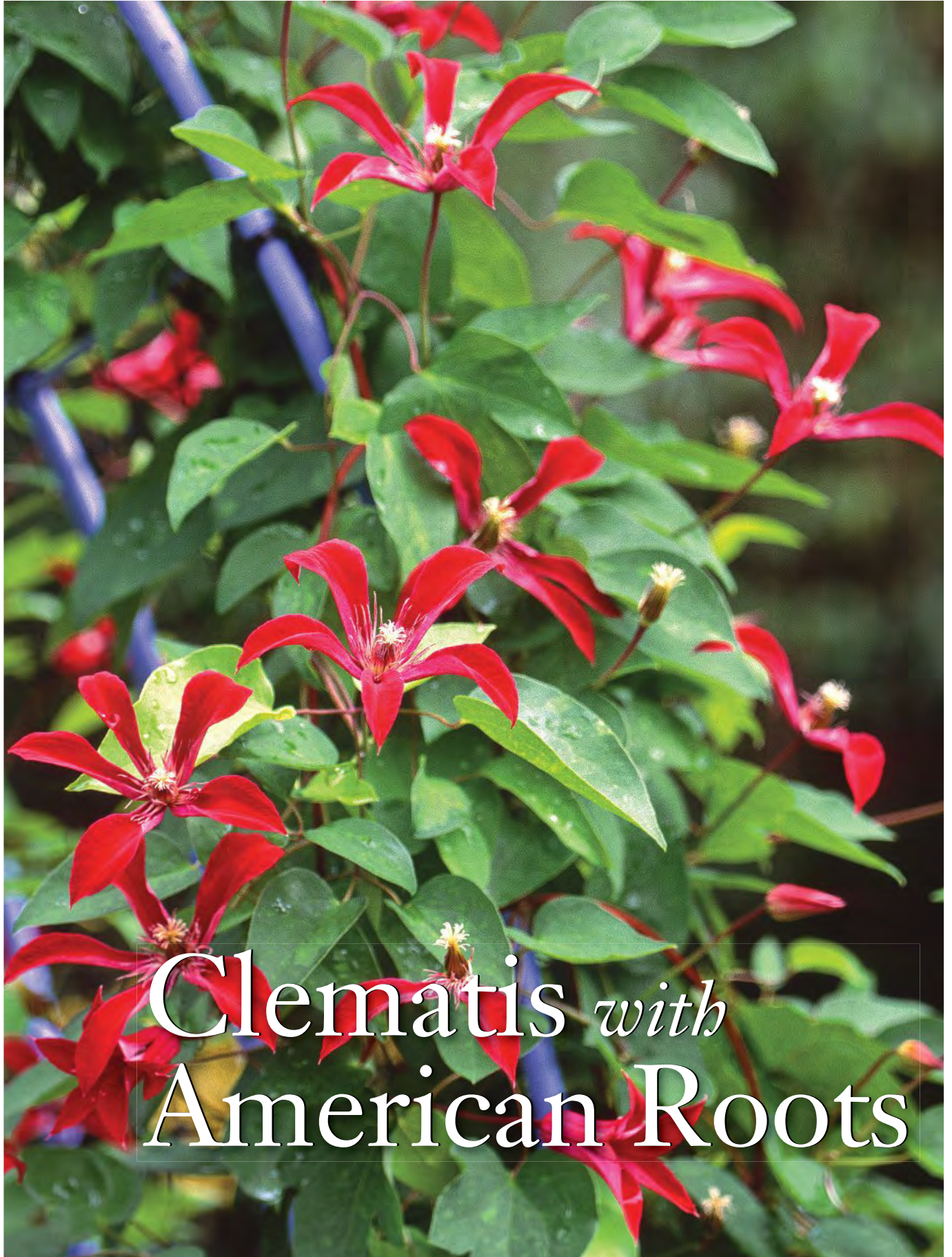
HOW AND WHERE TO STORE

A glass jar with an airtight lid is an excellent container for storing your herbal teas. Strip leaves from the stem and put whole dried leaves, seeds, or flowers loosely in a container. Crushed leaves and flowers lose flavor and aroma more quickly than leaves and flowers left whole. Preserve that flavor by storing your herbal tea ingredients whole and wait to crush them until you're ready to make a pot of tea.

Store jars in a cool, dark location away from a heat source such as a stove or sunny window. Heat can weaken the flavor and reduce the quality of your herbal tea. A few days after you store your herbs, check jars for condensation that may show up underneath the lid or inside the jar. If moisture is apparent, the contents will need to be removed and dried a little longer before storing.

The versatility and benefits of having your own herbal tea garden can be enormous. Many produce marvelous flowers that are lovely ornamental additions to the garden and some attract hummingbirds and pollinators. When you feel parched from the heat of the blazing sun, refresh yourself with a tall, cool glass of freshly harvested herbal sun tea. And when winter has chilled you to the bone, warm up with a cup of hot herbal tea. You may discover as I did, that herbal tea is your beverage of choice all year round.

A frequent contributor to The American Gardener, Kris Wetherbee grows herbs for tea in her garden in Oakland, Oregon.



Clematis *with*
American Roots

SUSAN A. ROTH

WHEN MOST people think of clematis, they imagine eye-catching hybrids such as wine-red ‘Ernest Markham’, lavender-blue ‘Ramona’ with its rounded sepals, or double ‘Duchess of Edinburgh’ with flowers like crumpled damask napkins. Or they may know and grow smaller-flowered, mass-blooming species such as snowy *Clematis terniflora* and golden *C. tangutica*.

But gardeners who are interested in integrating more North American natives in their landscapes may be surprised to find great diversity among our own less publicized clematis. “Most people come into the

Our bashful native clematis don’t get the attention of the flashy-flowered hybrids, but they are elegant enough to deserve a space in the garden.

BY CAROL HOWE

genus through the large-flowered hybrids,” says Linda Beutler, author of *Gardening with Clematis* and curator of the Rogerson Clematis Collection in West Linn, Oregon. “These plants have been made difficult to grow by contradictory pruning advice, and these are the only clematis prone to wilt disease. The native clematis, on the other hand, have a great deal more charm and subtlety. Natives are immune to wilt disease. Also, native clematis are super companion plants, wandering through shrubs and over dwarf conifers without being so massive or heavy as to disturb their host. Some North American species, like *Clematis crispa*, *C. texensis*, and *C. viorna*, have a very long period of bloom.”

Native clematis can be found in most regions of North America, from northwest Canada to Baja California and from Florida to Nova Scotia, although the majority of species are clustered in the East and Northwest. Among the best known are *C. crispa*, a southeastern native with

lavender flowers that sometimes have a pale margin; *C. hirsutissima*, a deep mauve- to violet-flowered native of the Northwest; and *C. texensis*, a scarlet to magenta native of Texas.

SOME FAMILY HISTORY

Clematis are members of the buttercup or crowfoot family (Ranunculaceae). The genus name is derived from the Greek word *klema*, which means a climbing or branching vine. There are more than 250 known species, most originating in the temperate regions of both hemispheres, and in excess of 2,500 selections.

wife of publisher Abner Doubleday—took much notice of our native species. The exception to this neglect was scarlet or Texas clematis (*C. texensis*). As the only clematis with red flowers, scarlet clematis was cherished by breeders, who employed it to bestow its singular hue—as well as vigorous growth, long season of bloom, and tolerance of heat and humidity—on numerous hybrids and selections.

TEXENSIS AND THE LEATHER FLOWERS

The undisputed star of North American clematis, scarlet clematis (Zones 5–9, 9–1) is native to Texas and surrounding



Hybrid clematis that have been developed using scarlet clematis include bicolor pink-flowered ‘Duchess of Albany’, above, and red-sepaled ‘Gravetye Beauty’, opposite.

The colorful “petals” of clematis are actually sepals that surround a cluster of usually contrasting-colored stamens. Although clematis can have between four and eight sepals, most of the North American native species have four.

Clematis became popular in Europe in the early 1800s, but on this side of the Atlantic, only naturalists such as Neltje Blanchan—a late 19th-century writer and

states. Its nodding, urn-shaped flowers, which arise from new wood between July and October, can range from scarlet to a dull reddish purple. The flowers narrow at the point where the thick sepals open and curl backwards, revealing a glimpse of a pink to yellow interior. Scarlet clematis thrives in a site in full sun (with roots in shade, if possible) and tolerates heat quite well.

In clematis circles, the species and its many hybrids are collectively described as the Texensis group. Perhaps the most highly regarded of the selections is ‘Duchess of Albany’, prized for its prolific, bicolor-pink flowers that bloom over a long period, followed by decorative seedpods. Other notable cultivars are ‘Gravetye Beauty’ (red), ‘Etoile Rose’ (rosy pink), and ‘Princess Diana’ (bicolor pink).

Related to *C. texensis* are several other North American clematis species featuring four tough, thick sepals that are joined to form nodding, urn-shaped blossoms with reflexed (upward curling) tips. The thickness of the sepals led to several species—including *C. viorna*, *C. versicolor*, *C. crispa*, and *C. addisonii*—becoming known by the common name “leather flower.” Some taxonomists lump together clematis with these characteristics as the Viorna group. Most are low-growing vines with delicate flowers, ideal for placement on a trellis in a partly shaded border or being allowed to cascade gracefully over small nearby shrubs.

Clematis viorna (Zones 4–9, 9–1), sometimes called vase vine, is found in gravelly soils from New York west to Illinois and south to Georgia and the Gulf Coast. Its sepals are mostly reddish purple, but the tips—which may curl upward like elfin shoes—reveal a greenish or creamy white interior when the flowers open in midsummer. It grows seven to nine feet tall on a trellis or with the support of nearby shrubs. The late garden writer Christopher Lloyd compared the golden seedheads that form in late summer to many-legged “tropical spiders.”

Clematis versicolor (Zones 5–9, 9–1) is found from Kentucky and Tennessee west to Missouri, Oklahoma, and Arkansas. It has small but numerous summer to early fall flowers on a seven- to 12-foot vine. Its sepals are rosy pink on the outside, fading to almost white towards the tips.

Addison’s clematis (*C. addisonii*, Zones 5–8, 8–3), restricted in the wild to limestone and dolomitic glades and banks in western Virginia, is a bushy plant that reaches only one to three feet in height. Distinctive heart-shaped leaves are borne on almost nonexistent leaf stalks. Its leathery sepals are deep reddish purple on the outside and creamy white inside. When the solitary early to midsummer flowers



“Leather flower” clematis species that have bell-shaped flowers composed of four thick, reflexed sepals include vase vine (*Clematis viorna*), top, and swamp leather vine (*C. crispa*), above.

TOP: LYNNE HARRISON. BOTTOM: JOSEPH G. STRAUCH, JR.

TIPS FOR GROWING CLEMATIS IN THE GARDEN

LIGHT REQUIREMENTS AND SOIL

Select a site for your clematis where its roots will be protected from direct sun during the hottest part of the day in summer, but the foliage will receive at least filtered sunlight. For most native species, a slightly acidic to neutral soil is ideal. In general, clematis thrive in rich, loamy, free-draining soil, so if your soil is heavy clay or too sandy, be sure to add leaf mold, compost, or other well-rotted organic material to the planting site. After planting, water the site thoroughly with a slow-running hose, then add an inch of light-colored mulch around—but not touching—the plant's base to help keep the roots cool and deter weeds.

When it comes to soil pH, says Linda Beutler, author of *Gardening with Clematis*, “generally, the southeastern U.S. clematis species—those in the Viorna group—will adapt to a wider range of garden conditions than our Northwest species do.”

Clematis that do require neutral or alkaline soil—especially low-growing, herbaceous types such as Fremont's leather flower (*C. fremontii*) and whitehair leather flower (*C. albicoma*)—are good choices for containers or troughs. “Something slow-release like crushed oystershells does wonders for these plants in acidic soil areas,” Beutler adds.

PRUNING

Different types of clematis have different pruning requirements. Scarlet clematis and the species in the leather flower group all bloom on new wood, and thus should be pruned to

near ground level each year while dormant. Western species such as *C. occidentalis* var. *grosseserrata* and *C. columbiana*, on the other hand, bloom on old wood and should only be thinned occasionally to stimulate new growth.

PROPAGATION

Many nurseries sell potted clematis (see “Sources,” page 26), but some of the native species may only be available as seed.

Clematis seeds germinate fairly rapidly if sown shortly after they ripen in early fall, but seeds that have been stored for more than a few weeks may need several cycles of cold and heat to germinate. Clematis fruits—technically achenes—have a prominent hairy “tail” that should be removed before seeds are sown, says Beutler. “For the Viorna group, the seeds are large and the seed coat (pericarp) is tough, so I soak them for five days at room temperature and then peel off the pericarp before sowing,” she adds.

Following the advice of seed germination guru Norman Deno (author of *Seed Germination Theory and Practice*), Susan Austin, owner of Completely Clematis in Ipswich, Massachusetts, sows her native clematis seeds on moist paper towels and places them inside resealable plastic bags. These are then stored in the refrigerator, and checked weekly for germination (or evidence of mold). Once the seeds start to germinate, she carefully transfers them into individual pots and places them under grow lights.

—David J. Ellis, Editor

bloom on their long stalks, the sepal tips curl back to reveal a downy interior.

Sometimes known as blue jasmine, swamp leather vine, or curly clematis, *C. crispa* (Zones 5–9, 9–5) also has downturned flowers, but with more delicate sepals than other “leather flowers.” The sepals—distinguished by ruffled edges and strongly reflexed tips that often curl back on themselves—are pale blue to lavender with a lighter band on the interior midrib of each, forming a star around the central cream-colored stamens. The blooms may be few in number, but they reappear continuously from May to September and have a light fragrance.

Swamp leather vine grows from six to nine feet tall and is native from Pennsylvania west to Missouri and south to Texas and Florida, where it is often found growing in forests, along riverbanks, and in marshy areas. Its stems usually die to the ground in winter, and in the northern extent of its range, the crown of the plant should be protected from frost with a lay-



Woodbine is a vigorous climbing clematis that has numerous white summer flowers and attractive seedheads in autumn.

er of organic mulch. Linda Beutler lists *C. crispa* among her 10 favorite clematis. “What’s not to like?” she asks, rhetorically.

“It’s easy to grow, fragrant, with a long season of bloom, followed by boisterous seedheads that are easy to germinate if you want more. The charming flowers earn their ‘crispa’ chops by being as crenulated as a square-dance petticoat.”

Swamp leather vine’s genes have been incorporated in a number of hybrids, including the well regarded selection ‘Betty Corning’ (Zones 4–10, 9–4), which bears lavender to pale purple flowers.

FREE-CLIMBING CLEMATIS

In sharp contrast to the low-growing, delicate leather flower group is woodbine (*C. virginiana*, Zones 4–9, 9–1), a vigorous climber that can reach 20 feet. Look for it trailing over plants and bushes in moist woods or along stream banks from Nova Scotia to Georgia and west as far as Manitoba and Tennessee. Although it blooms from July through September, woodbine is better known for its fall display of plummy silver seedheads than for its unspectacular small creamy white flowers. Known by several common

Sources

Alplains, Kiowa, CO. (303) 621-2247.
www.alplains.com.

Brushwood Nursery, Athens, GA. (706) 389-0689. www.gardenvines.com.

Completely Clematis Nursery, Ipswich, MA. (978) 356-3197.
www.clematisnursery.com.

Joy Creek Nursery, Scappoose, OR. (503) 543-7474. www.joycreek.com.

Shooting Star Nursery, Georgetown, KY. (866) 405-7979.
www.shootingstarnursery.com.

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

Resources

Gardening With Clematis: Design and Cultivation by Linda Beutler. Timber Press, Portland, OR, 2004.

Guide to Growing and Propagating Wildflowers of the United States and Canada by William Cullina. Houghton Mifflin, Boston, MA, 2000.

International Clematis Society,
www.clematisinternational.com.



names—including old man’s beard, virgin’s bower, and my personal favorite, devil’s darning needles—it is sometimes confused with non-native sweet autumn clematis (*C. terniflora*), but the flowers lack fragrance. In the eastern United States, woodbine grows so vigorously and self-sows so readily that it can become a bit of a nuisance, especially in small gardens, but it is less rambunctious in the western part of its range.

Its western counterpart, usually called virgin’s bower, is *C. ligusticifolia* (Zones 5–9, 9–4), native from western Canada south to California and Mexico and east to the Rockies. It grows to 20 feet tall or more, with clusters of small white flowers in late spring and decorative seedheads in autumn.

Native exclusively to California and bordering coastal Mexico, chaparral clematis (*C. lasiantha*, Zones 5–8, 8–5) is another white-flowered option. It can grow up to 20 feet tall, developing woody stems where fully hardy. It bears showy flowers composed of white sepals surmounted by pincushion clusters of prominent yellow stamens in spring, and then offers a second flush of ornamentation via its silky fall seedpods.

In its native habitat in the Pacific Northwest, rock clematis, above, grows in full sun on limestone-based soil. Fremont’s leather flower, right, native to alkaline sites in the lower Midwest and South, forms bushy clumps to two feet tall and is a good option for troughs.

CLEMATIS IN THE WEST

In addition to *C. ligusticifolia* and *C. lasiantha*, there are several clematis from western North America worth considering. One of the widest ranging native clematis is purple clematis or bell rue (*C. occidentalis*, formerly *C. verticillaris*, Zones 3–8, 8–3). Along with its two botanical varieties (described later), it encompasses a vast native range from British Columbia to eastern Quebec, south to Wisconsin and northeastern Iowa and east as far as West Virginia and New England.

The species, which inhabits the eastern part of the range, is a woody-stemmed six- to 10-foot clamberer that thrives in forested areas with rocky, alkaline soil. It has broad, drooping, almost translucent, lavender to purple-blue, downy sepals. Arising singly from leaf axils or branch tips, the flowers



can reach two inches long but rarely open fully. Its botanical varieties are *C. occidentalis* var. *dissecta*, a three-foot climber with rosy pink to purple flowers, found in the Cascade Mountains of Washington, and the indigo-flowered *C. occidentalis* var. *grosseserrata*, found in Alaska, northwest Canada, and south to Colorado.

The range of *C. occidentalis* overlaps that of a related species (some sources list it as a subspecies of *C. occidentalis*) called rock clematis (*C. columbiana*, Zones 4–7, 7–3), which has purple to blue, May-blooming flowers with translucent sepals that are even broader than those of its more eastern relative. Rock clematis is found from British Columbia and Alberta south to Oregon and Colorado.

Another western species, native to meadows and high desert from Washington and Oregon west to South Dakota and south to New Mexico and Arizona, is hairy clematis (*C. hirsutissima*, Zones 4–7, 7–3). Also known as sugar bowls, its rounded, leathery, downturned flowers are formed of deep purple sepals that curl back at the very tips to reveal creamy stamens within. Sugar bowls rarely grows more than two feet tall, and both its foliage and sepals are covered with fine silvery hairs. It can be grown in a sunny border with free-draining soil, a rock garden, or a container. A botanical variety, *C. hirsutissima* var. *scottii*, differs from the species in having bipinnate leaves, sepals that are a paler shade of lavender, and growing up to a foot taller.

MIDWEST CLEMATIS

In the harsh climate of the Midwest prairies, certain native clematis tend to be more herbaceous in habit. Fremont's leather flower (*C. fremontii*, Zones 4–7, 7–4), for instance, grows only one to two feet tall, forming dense clumps in sites where it is happy. Native to Nebraska, Kansas, and Missouri, its nodding flowers bloom in early summer in shades from purple to white. Fremont's leather flower is endemic to sites underlain with limestone, so it does require neutral to slightly alkaline soil.

A more vinelike species, growing six to 10 feet tall, is bluebill (*C. pitcheri*, Zones 4–9, 9–4), native from Indiana south to Mississippi and west to Nebraska and Texas. It is distinguished by five ribbed sepals that are pale lavender or rose on the outside and ruby red to purple inside. Creamy to greenish white stamens provide a lovely contrast to the sepals. Its large leaves are divided into seven to nine occasionally lobed leaflets.

MAKING ROOM FOR NATIVE CLEMATIS

These species are just a few of the many that are native to our continent. It's fun to discover these clematis on rambles in the



'Betty Corning', a hybrid whose parents include vase vine (*Clematis crispa*) and *C. viticella*, grows to six to 10 feet tall. From midsummer into fall, it bears hundreds of dainty, lightly fragrant, pale purple flowers with eye-catching white markings.

woods, and even more exciting when you realize a number of them are actually in cultivation (for a list of nurseries that carry some of these species, see "Sources," page 26). Some are ideal for naturalizing a corner of your garden. Others will look terrific in the border as late season adornments for a small shrub whose spring flowers are long gone. Still others can be trained up a small trellis or grown over an arbor.

And finally, don't be discouraged by any reports about the finickiness of the native

species. "I find native clematis much easier to grow and tougher than a lot of the hybrids," says Susan Austin, who runs Completely Clematis nursery in Ipswich, Massachusetts. "I wish more people knew about them because they are worthy garden plants." 🌿

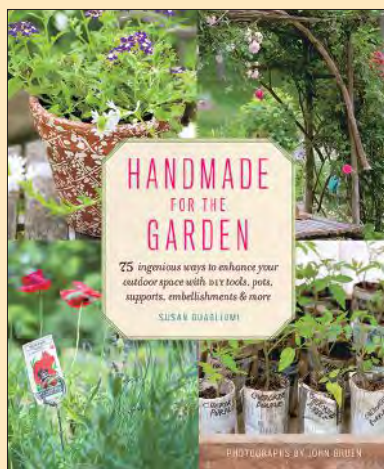
Carol Howe is a freelance writer who resides in Rockland, Maine. This article is a revised and updated version of one originally published in the May/June 1996 issue of The American Gardener.

terra-cotta

BY SUSAN GUAGLIUMI

Transformation

“Repurposing” is trendy these days, from jewelry to home decor. Not only does it test your creativity, it reduces waste and saves money. Veteran crafter Susan Guagliumi, who began creating garden tools and accessories while restoring her former 1830s home several decades ago, has found new ways to repurpose everything from newspaper to bottle caps and watering hoses. Here she offers instructions on how to turn ordinary terra-cotta pots and a section of terra-cotta pipe into what she calls a “mother” pot with multiple planting spaces—perfect for growing a variety of plants on a patio, balcony, or anywhere room is limited.



This article on reusing terra-cotta pots is an adapted excerpt from Susan Guagliumi’s recent book, **Handmade for the Garden** (photographs by John Gruen, illustrations by Sun Young Park, published by Stewart, Tabori & Chang, New York, 2014, \$27.50), which offers a variety of do-it-yourself garden-themed projects. Used with permission from the publisher.

I BEGAN CUTTING UP flowerpots after an inspiring trip to Mexico. Once I started, I was amazed at how easy it was and how many uses I had for the cut pots. “Mother pots”—large pots with smaller pots attached—are fairly common in Native American, Mexican, and South American pottery traditions. I decided to make my own with terra-cotta pots I had on hand. These pots make compact, space-saving planters for herbs, strawberries, or ornamentals that are practical to grow in groups.

TIPS FOR MAKING A MOTHER POT

While a finished mother pot looks very complicated, it’s actually easy to make and involves two basic steps: cutting several flowerpots in half and then adhering the cut pots to the mother pot.

Cutting flowerpots in half is incredibly simple—and fairly messy—so cover the work surface with lots of newspaper, and make sure to wear a dust mask and eye protection while you work. In addition to using a file to smooth cut edges, you can use tile nippers to remove bumps and notches on the edges or to shape edges to fit the curve of the mother pot.

Keep in mind that simply cutting most pots in half will yield two pieces that are both a bit too small to plant. Instead, try to cut off about a third of the pot so that you are left with a larger, more “plantable” section to attach to the mother pot or other surface. Then save the smaller cut-off section for drainage in other pots or for other uses.

For step-by-step instructions on how to make the mother pot shown on the opposite page, turn to page 30.

Opposite: It is easier to attach the cut pots to a flat surface than to a curved one. Square terra-cotta flue pipe, available in 8-inch and 12-inch widths, makes a great “mother pot” and a terrific, space-saving herb planter.



JOHN GRUEN FROM HANDMADE FOR THE GARDEN

How to Make a Mother Pot

SUPPLIES

- Assorted terra-cotta flowerpots (especially chipped or badly damaged pots)
- Large section of flue pipe (8-inch or 12-inch [20 cm or 30 cm] square)
- Barn board, or other surface for adhering cut pots
- Hacksaw (or tile saw) fitted with carbide-grit hacksaw blade Stanley #15-410)
- Construction adhesive (for masonry, stone, or terra-cotta)
- Solvent (check the adhesive's directions)
- Tile nippers
- Coarse file
- Coarse-grit sandpaper
- Wood blocks or empty coffee cans (if working with multiple cut pots)
- Rags
- Duct tape
- Pencil
- Newspaper
- Safety goggles and dust mask

1 BEGIN CUTTING VERTICALLY ACROSS BOTTOM OF POT

On a work surface covered with newspaper, place the pot upside down, and begin cutting vertically through the bottom, positioning the hacksaw so that you cut the pot into sections that are about a third and two-thirds of the original pot. Be aware that the bottom and upper rims of the pot are usually a little thicker than its side walls.

2 FINISH FIRST CUT FROM OPPOSITE DIRECTION

Unless you have a very large hacksaw with a wide bite, it will probably be impossible to cut the pot entirely from one direction. When the saw's frame starts to knock against the pot, turn the pot over and work from the top end. Cut through the rim, connecting with the first set of cuts as evenly as possible. There is apt to be some difference between the cuts, but you can correct that later with a coarse file. When cutting very large pots, you will need to hold the pot on its side, and work one side at a time. Work back and forth between the two sides to avoid cutting one side through totally because the other side might snap from the pressure.

3 SMOOTH POT'S CUT EDGES

When the pot separates into two pieces, place the cut edge of the two-thirds section on a flat surface. (Set aside the one-third section for another use.) If there are bumps that prevent the two-thirds

section from lying flat, use the coarse file or the tile nippers to smooth them out.

4 SHAPE POT'S BOTTOM TO FIT NEW SURFACE

If you want to apply the cut pot to a larger round pot, you will probably need to notch or curve the bottom of the pot by filing it carefully. If you plan to apply the pot to a flat surface, like a length of flue pipe, you won't have to worry about this unless you want to adhere it to one of the flue pipe's square corners. In that case, you will need to shape the bottom of the pot to fit the corner so that the pot's sides are flush with the sides of the flue pipe. Also make sure the bottom of the pot still allows some space for drainage. Finally, use a rough file to remove any bumps or high spots, and check the cut pot against the surface of the mother pot to be sure it fits as snugly as possible.

5 MARK CUT POT'S POSITION ON MOTHER POT

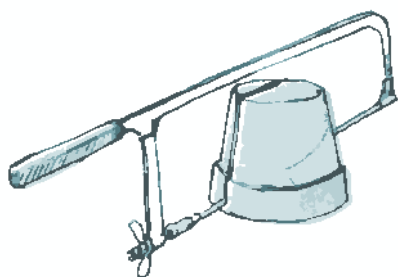
Position the mother pot on its side. Position one cut-pot section on the mother pot, and use a pencil to trace the cut pot's inside edges on the surface.

6 APPLY ADHESIVE TO MARKED POSITION

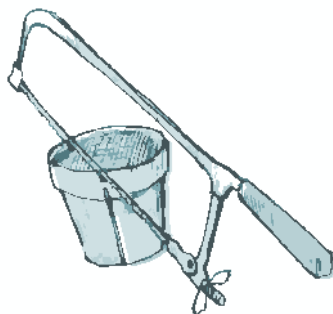
Spread the adhesive just inside the pencil lines. Use construction adhesive for attaching cut pots to terra-cotta, masonry, or stone surfaces.

7 POSITION CUT POT ON MOTHER POT

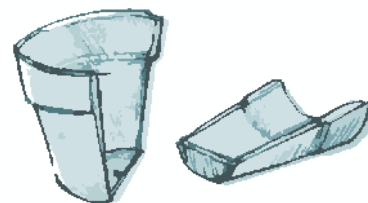
Let the adhesive sit for five to 10 minutes. Place the cut pot onto the mother pot,



1 Begin by turning the pot upside down to saw through the base and partway through the sides.



2 When the frame of the saw prevents you from cutting further, turn the pot over and continue cutting from the rim. Try to align the two cuts.



3 Save the smaller pieces for making plant markers or for drainage in the bottom of larger pots.

and wiggle the cut pot slightly to move the adhesive around a bit. Let them sit undisturbed for five minutes. Then, lift the pot very slightly off the surface and replace it, which helps the glue grab the surface. Moisten a rag with the solvent, and clean up any excess adhesive or glue outside the edges of the pot. The glue on the inside will not show once the pots are full of soil. Gently tape the pots in place with duct tape to hold them tightly while they dry.

8 WORKING WITH MULTIPLE CUT POTS

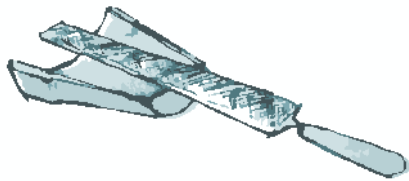
If you want to attach cut pots all around the mother pot, you will need to let all the cut pots on one side adhere fully before adding cut pots on the next side. Eventually you may need to work with the pot positioned vertically to avoid breaking or damaging the first pots you attached. If you're working vertically, use some blocks of wood or empty coffee cans to prop up the pots you're gluing on while you tape them in place to dry. It will take about 24 hours for construction adhesive to fully cure.

Once the adhesive is dry, you can apply more adhesive from the inside of each pot if you think you need it, but try to leave the drainage hole open on the bottom of each cut pot. If you missed cleaning off any blobs of wet adhesive, use a single-edged razor blade to remove them once the adhesive is dry and the added pots are set.

Susan Guagliumi gardens and crafts in Northford, Connecticut.



In order to fit the cut pots to the curve of the mother pot, the author used a coarse file to shape the bottom of each cut pot so that it lies flush against the curved surface of the larger pot. This pot was also finished with a coat of lime for an aged effect.



4 Use a coarse file to remove any bumps that prevent the larger piece from lying flat on the surface of the mother pot.



5–6 Lightly trace the cut pot's inside edges onto the mother pot and then spread the adhesive inside the lines.



7 Position the cut pots on one side of the mother pot and use duct tape to hold them fast while the adhesive dries.

Landscape designer Julie Moir Messervy is on a mission to empower everyone to create more satisfying garden spaces.

thoroughly modern Messervy

BY SUSAN HINES

WHETHER SHE'S creating evocative public spaces, working with residential properties, or writing books about garden design, landscape designer Julie Moir Messervy brings perspective and expertise that have set her apart from the mainstream over the course of her three-decade career. At the same time, bringing effective design into the mainstream is one of her passions. Her goal is to enable everyone to design great landscapes by decoding and distilling the essence of a garden into terms anyone can understand and apply.

HARMONIOUS LANDSCAPES

Messervy is formally trained in architecture and city planning, with master's degrees in both disciplines from the Massachusetts Institute of Technology (MIT). Yet she has made landscape design her professional realm. Her most celebrated work, for the City of Toronto, is a garden inspired by Bach's First Suite for Unaccompanied Cello, on which she collaborated with cellist Yo-Yo Ma. That garden, which opened in 1999, firmly established her in the upper echelons of landscape designers and became a "must see" destination for professionals and lay-gardeners alike.

"Applying other art forms—in this case music—to garden design is not a new idea. However, it is well accomplished at the Toronto Music Garden," says former editor-in-chief of *Landscape Architecture* magazine J. William Thompson. During the course of his two decades on the magazine's staff, he visited innumerable landscapes, but his trip to the Toronto Music Garden 15 years ago still stands out in his mind. "By wearing the headphones provided by the garden, the music analogy comes through forcefully, aided by virtuoso per-



Enabling all homeowners to create great landscapes is the ultimate goal for award-winning landscape designer and author Julie Moir Messervy.

COURTESY OF JULIE MOIR MESSERVY DESIGN SERVICES



Above: The spiral section of the Toronto Music Garden is one of six distinct areas, each one corresponding to a movement of Bach's First Suite for Unaccompanied Cello. **Left:** Recently completed by JMMDS, the entryway of this Boston-area home features a welcoming living wall of native perennials and a permeable surface to accommodate vehicles.

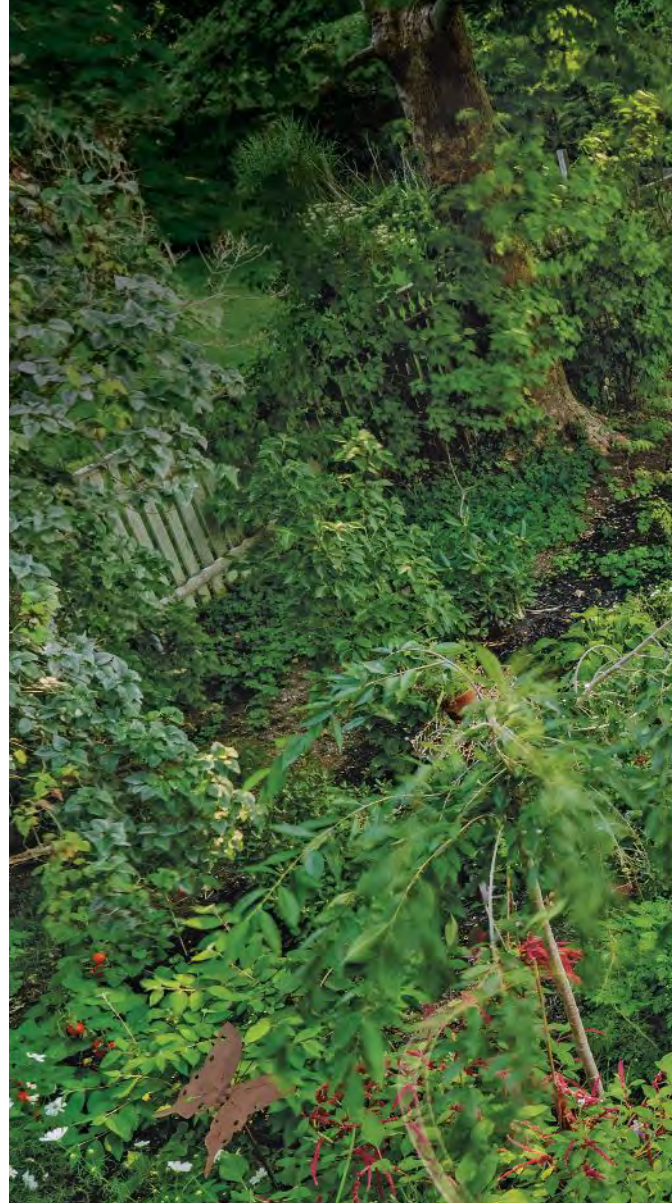
formances from Ma's extraordinary cello. I spent a memorable afternoon there and was not surprised to learn that Messervy is herself a trained musician," says Thompson.

Michael Van Valkenburgh, Messervy's contemporary and one of the most sought-after landscape architects working today, calls the Music Garden "a pleasure and a delight." He goes on to say, "The serendipitous layout of the paths and spaces combined with the wise and interesting plant choices make a truly wonderful garden perched on the edge of Lake Ontario."

Given the fame of her musician collaborator, and the enduring success of that very public, award-winning space, it is not surprising that the Toronto Music Garden looms large in any discussion of Messervy's work. It's important to realize, however, that she designed this garden early in her career, and the roster of projects her Boston-based firm, Julie Moir



A well-thought-out design can transform uninviting spaces into dynamic extensions of the home. In *Landscaping Ideas That Work*, Messervy illustrates this concept by showing a “before” photograph of a modest, featureless backyard, above, that the homeowners wanted to use for outdoor dining, gardening, relaxing, and playing with their children. From the plan JMMDS helped them make, the family then created the almost unrecognizable version shown in the “after” photograph, right, filled with colorful plants in well-defined beds.



Messervy Design Services (JMMDS), has since designed embraces a broad range of services for many other high profile corporate, institutional, and public clients.

These include designing gardens for the Waltham, Massachusetts, headquarters of biotech firm Praecis Pharmaceutical and a rooftop garden for Fidelity Investment Company in Boston. The City of Greenville, South Carolina, has engaged Messervy’s firm, as have the Franklin Park Conservatory in Ohio, Harvard University’s Arnold Arboretum, the Massachusetts Horticultural Society, and Boston’s Museum of Fine Arts. For these entities and others, she has done everything from creating gardens and conducting visioning sessions to master planning and lecturing for fundraising purposes.

Unlike some designers, Messervy doesn’t promote a signature style, although she believes creating and refining a personal

vision for others is a perfectly valid way to work. Her residential work, for example, traditionally begins with the client reading one of her books to establish a common language for speaking about landscape design. Then comes what she calls “a joyful process” of identifying needs and desires. The resulting gardens are unique because they are painstakingly tailored to specific people and specific places.

Large projects with multiple stakeholders receive much the same approach, and Messervy is just as enthusiastic about working directly with diverse groups. Her abiding interest in people and how they feel about place is evident when she describes this part of her practice. “Planning is part and parcel of the discovery that needs to go on in the design process,” Messervy says. “You need to look beyond the self and ask the right questions. I want to find out what people know that I don’t

know. The people who work there know that place. From them, I need to learn what is sacred and what is profane so I know what can change and what can’t.”

MIDWESTERN ROOTS

One of seven children, Messervy grew up in suburban Illinois, where large families were common and homes seldom predated the eldest child by much. “We were in a new development, like everyone else at the time. The ground was very level, like the Midwest is,” Messervy says with a laugh. “But the neighbors had a pond and an old apple orchard.” It was, according to Messervy’s account, a “great childhood” during which she and her siblings were free to roam, climb gnarled old apple trees, hide beneath pine trees in a nearby forest, and build stick forts.

Though the family moved east when Messervy was 11, and she would trav-



SUSAN TEARE, FROM *LANDSCAPING IDEAS THAT WORK*, THE TAUNTON PRESS, 2014, COURTESY OF TAUNTON PRESS

el abroad as a student and young adult, those early experiences of the midwestern landscape profoundly influenced her career choice as well as her professional and philosophical approach to design. Interestingly, the epiphany occurred in Japan, where Messervy spent several years as a Henry Luce Scholar and then as a Japan Foundation Fellow while enrolled as an architecture student at MIT.

While immersed in traditional Japanese gardens and design process, Messervy was reminded of her childhood places. “Of course, these [traditional Japanese gardens] were more cleaned-up landscapes,” she says, but at the same time they were familiar. “Think about a Japanese garden with a white pine, pine needle mulch underneath it, moss, trillium, and a little river,” she says, conjuring the image. “These gardens felt personal to me and it was natural to want to design those places.”

Encountering a more refined version of her childhood haunts not only inspired Messervy to design gardens rather than buildings but also to research and write her master’s thesis on the spaces workers in downtown Boston sought out during breaks in their work day. Through interviews, Messervy learned that nearly everyone she encountered had a special spot, from the middle of Boston Common to a stairwell, and that these places often recalled memories from childhood.

TRANSLATING DESIGN CONCEPTS INTO EVERYDAY LANGUAGE

Messervy’s approach to design leans toward inclusion rather than exclusivity, despite the long list of honors and awards she has collected throughout her career, including the American Horticultural Society’s Landscape Design Award in 2005 and an Award of Distinction from

the Association of Professional Landscape Designers in 2006. Now 63, her goal is the same as it has always been: “I just want to help as many people as I can,” she says.

“In my travels for lectures and projects I noticed that people are not landscaping their properties as much as they used to,” says Messervy. “I decided to find ways to help them get over their fears so that they can create a landscape around their house that draws them outside again.” *Landscaping Ideas That Work* (Taunton Press) is the latest in a series of widely acclaimed design books in which Messervy attempts to make sophisticated garden design more accessible to the general public.

Her earlier works, *Contemplative Gardens*, based on the research conducted for her master’s thesis, and *The Inward Garden* are “big idea” books that ponder questions like why a vast range of cultures create gar-



Messervy advises incorporating elements like comfortable seating and a fire pit to draw people outdoors for socializing and relaxing.

dens, how they differ, and more importantly, how these gardens are the same. Messervy found that, despite outward appearances and aims, gardens across the world relied on common design elements. In these books, archetypes, motifs, and the concept of journey create a system for analyzing the structure of landscape as well as the emotional effect they have on people.

Yet, even in the transition between *Contemplative Gardens* and *The Inward*

Garden, which won the Garden Writers Association's (GWA) Gold Medal in 1996, Messervy refines and simplifies her philosophy. This is a theme she continued in *Outside the Not So Big House*, co-written with architect Sarah Susanka, and went even further with *Home Outside: Creating the Landscape You Love*, which also won the GWA's Gold Medal in 2010. With each book, she is "trying to move toward answering the question, 'How can I take this conceptual

language I've developed and make it even more accessible?'"

Landscaping Ideas That Work drills down even further into the basics. Messervy's "simplify, simplify" approach is very clear as she demonstrates how designers approach a landscape. Her goal is to clarify the parts and the process, by tackling what she calls, "the elements of a home landscape, how they are employed, and how these different elements come together." It relies on everyday language to address everyday components, like back yards, front yards, driveways, garages, and sheds.

"Design transforms something into something else," Messervy says. Take a lawn, for example. "If you take something boring and call it a garden," she says, "you automatically see more possibilities. If you turn a lawn into a garden then you can accept dandelions and wildflowers." This is not to imply that Messervy rejects lawn. If you want one in your landscape, that's great, so long as it is integrated into the overall design (see her "Landscaping Tips That Work" on the opposite page).

Julie Moir Messervy's Books

Contemplative Gardens, Howell Press, Charlottesville, VA, 1990.

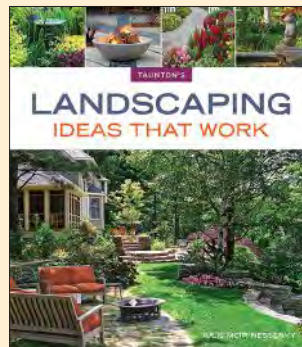
Home Outside: Creating the Landscape You Love, Taunton Press, Newtown, CT, 2009.

The Inward Garden, Little, Brown and Company, Boston, MA, 1995.

Landscaping Ideas That Work, Taunton Press, Newtown, CT, 2014.

Outside the Not So Big House, Taunton Press, Newtown, CT, 2006.

The Toronto Music Garden, JMMDS, Saxtons River, VT, 2009.



LANDSCAPING TIPS THAT WORK

“Comfortable living spaces in a landscape that works aren’t hard to create,” says Julie Moir Messervy, “and the pleasures are palpable.” Here are a few tips to get you started, adapted from her new book, *Landscaping Ideas That Work*.



A clean, distinctive edge between lawns and garden beds—like this one created with a sharp spade—puts the finishing touch on any design.

- Create a wish list to better understand how you actually want to use your property. Consider atmosphere, activities, and features.
- The front yard has become a welcoming entryway as well as a comfortable living space. Consider how your front yard could function if you treated it as your back yard.
- Integrate the side yard into your design by repeating planting or hardscape features here.
- Use plants to soften the appearance of a driveway and make it part of the landscape.
- Think of the lawn as a “pool of space”—a continuous surface that is framed, like a swimming pool, by a clear edge.
- Stepping stones are easy to assemble and fun to follow. For ease of maintenance, sink each stone into a low-growing groundcover or a lawn, so you can easily mow right over them.
- Edge your walkways, garden beds, or lawn to create a clean, crisp demarcation that satisfies our need for definition in a landscape.
- A subtle but important detail is to place a large flat stone under a gateway opening to indicate that this is a place to pause and appreciate the landscape ahead.
- Water provides one of the best points of focus in a landscape. Simple all-in-one garden fountains can add visual and aural delights on a shoestring budget.

—S.H.

DESIGN IN THE DIGITAL AGE

What about new generations of homeowners—young people raised in a digital world—who have been itching to get their hands dirty? Yes, there is an app for them. “Most homeowners don’t know how to even begin working on their property, but through our books and also new digital technology we can help anyone, anywhere,” Messervy explains. The Home Outside Palette app created by Messervy and her JMMDS team allows users to design their property in plan view. And just as she wants to hear what people want from their landscapes, Messervy has listened to what users want from the app. “They have requested a number of additional features,

such as importing a photo as a background, including drawing and measuring tools, and Facebook sharing—all of which we’ve included in our latest release,” she notes. “And, we’ve updated existing functions to make them easier to use.”

Messervy and her design team also maintain a blog to “provide ideas, techniques, and inspiration for our followers,” she says. “So much information to share!”

Ultimately, it may be Messervy’s willingness to share, as much as her celebrated design talent, that sets her apart from her generation of designers, many of whom are flummoxed by social media’s demand to broadcast their ideas broadly and indiscriminately.

Messervy’s mission, to empower you to create a landscape that responds to your personal needs and desires, has a certain Baby Boomer resonance despite the digital downloads. It’s power to the people combined with the customization Millennials crave. The American landscape will only be better for Messervy’s efforts, online and otherwise.

Susan Hines was the founding editor of the American Society of Landscape Architects’ electronic newsletter, LAND Online, and started its blog, THE DIRT. She was on the staff of Landscape Architecture magazine from 2004 to 2008. Now a freelance writer, she gardens in Hyattsville, Maryland.

Sustainable Rose Gardening

by Scott Aker

FROM AN early age, I've admired elegant and well-maintained rose gardens, both at botanical gardens and in private landscapes. I think it's partly because roses are associated with many of the important events in our lives, including courtship, marriage, and graduation. After I started growing roses myself, however, I began to associate them with devotion—the devotion needed to follow a rigorous plan for dealing with all the pests and diseases that afflict them.

Over the last couple of decades, however, there has been a sea change in the way gardeners and horticulturists view roses. Rather than continuing to grow the most beautiful but disease-prone selections, we are recognizing the value of the genes in the tough, workhorse roses that can be found thriving on decades of benign neglect in cemeteries and around abandoned homes. The advent of the KnockOut™ roses 14 years ago spurred breeders to begin introducing many shrub rose selections adapted for almost any location, although without the trademark flower form and fragrance historically associated with roses.

Is it possible to grow roses without the regular application of harsh pesticides and fertilizers? Certainly, if you are willing to do your research so you can choose appropriate selections, select and prepare an ideal site for your roses, and develop a multi-faceted approach to any pest and disease problems that arise.

REGIONAL APPROACH TO SELECTION

The potential problems you will face in growing roses depends largely on where you live. In North Dakota, winter hardiness is the main challenge. In coastal California, powdery mildew might be your biggest issue. In the mid-Atlantic, black spot is enemy number one. You can easily find out what the main pest and disease problems are in your area by talking to experienced

rose growers. Most states have one or more chapters of the American Rose Society (www.ars.org), and you can also seek out a Master Gardener in your area or ask for advice at a local botanical garden.

Finding out what problems afflict roses in your area is the best guide to selecting the appropriate ones to grow. If you start by looking through rose catalogs or garden books, the beguiling photos and

RIGHT SITE AND CARE

The next step is planning for the most hospitable site possible. Roses that do not receive enough sunlight or are growing in infertile or poorly drained soil will be much more prone to pest and disease problems. A site that gets full sun from sunup to sundown is ideal. The soil must drain freely, but must also have the ability to hold moisture and nutrients. As shrubs



Disease-resistant shrub roses such as 'Rainbow' KnockOut require less care than their more floriferous and fragrant forebears and perform well in most regions of the country.

descriptions may overcome your better judgment to purchase disease resistant selections. Most catalogs offer some indication of each rose cultivar's resistance to disease, but resistance is all relative. In areas with warm, humid weather and frequent rain, many cultivars described as resistant to black spot are not resistant enough to escape major damage from the fungal disease. Once you have narrowed the field to those selections that are most likely to grow well in your area without chemical intervention, you can then choose among them by size, habit, color, and fragrance.

go, roses are quite deep-rooted and won't thrive in a thin crust of good soil on top of impermeable clay or a layer of stone. Check the soil in the area where you plan to grow your roses to ensure that there is no rubble or barrier to root growth to a depth of two feet. Roses can adapt to most types of soil if it is modified by adding organic matter. I have seen impressive rose gardens grown on nearly pure sand amended with compost and rotted manure, and I have seen equally impressive roses growing in gravelly soil with copious amounts of rotted horse manure worked

Gardening Q&A with Scott Aker

ARBORVITAE CONCERNS

I am thinking of planting 'Virescens' arborvitae and would like to know if these trees have to be sprayed for pests.

Arborvitae are sometimes troubled by bagworms, so you will need to check them for hatchlings beginning in mid-June. Look for tiny caterpillars that have a small wad of dead foliage stuck to them. If they appear, treat the plants with a *Bacillus thuringiensis* spray, covering all the foliage thoroughly. If you don't discover them until they are larger, you can use a pesticide containing spinosad, which is effective in killing all the larval stages of bagworms. Deer often feed on arborvitae, so if deer are abundant in your area, you may want to protect the bottom portion of the trees with netting or wire mesh.

TIPS FOR STURDIER OUTDOOR POTS

I have several large house plants that I put out on my deck over the summer. They really thrive there, but during storms they get blown over all the time, damaging the new growth. How can I keep them upright?

You can transfer them to a heavier pot with a wider base or place a brick or two in the bottom of each pot. A lightweight and effective solution is to loop a piece of wire through the drain holes in each pot and then wire the pots onto the deck boards, twisting them securely from under the deck. For this to work, you obviously need access to the underside of your deck and pots with at least two holes in them. —S.A.

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

in. If drainage is an issue, opt for growing roses in raised beds. You'll also find the maintenance is easier and the flowers are closer to nose level. Above all, grow your roses in an area of your garden that has good air circulation.

To reduce the risk of fungal diseases, invest up front in a watering system that will keep water off the rose leaves. Use a drip irrigation system or install a soaker hose under the mulch layer to put the water directly into the soil. Add a two- to three-inch layer of organic mulch around your plants to deter weeds. Fertilize monthly with a balanced organic or slow-release fertilizer applied around the base of the plants.

MONITOR YOUR PLANTS

Even if you have limited your selection of roses to varieties that can resist significant pest or disease problems, you need to monitor them. Plan to spend at least 15 minutes each week walking through the garden looking for developing pest and disease problems. Look at the foliage, and turn over leaves. When you find a problem such as aphids or mites, don't forget to look




Monitoring plants regularly for pests and diseases is the best way to head off problems, such as this infestation of rose aphids on a bud.

for their predators, such as ladybird beetles, lacewings, and syrphid flies. If mites or aphids get out of control, they are easily dispatched with a blast of water from your hose. Sometimes you will find the damage before its cause. Leaves that have tiny holes eaten in them, often with the upper epidermis left intact, are the calling card of the rose

slug sawfly. Close inspection should reveal the caterpillarlike larvae on the underside of the leaves. If they are too numerous to pick off the plants, insecticidal soap or horticultural oil will take care of them.

Fungal diseases such as powdery mildew and black spot are by far the worst diseases that afflict roses, but they tend not to occur in the same regions. Powdery mildew is most prevalent in areas that have high humidity without frequent rain. Powdery mildew spores are killed by long periods in water, but they germinate and grow well in high humidity. There are many good organic options for prevention of powdery mildew, and some will even help to control an outbreak. Horticultural oil, neem oil, and potassium bicarbonate are all good options. Sulfur works, too, but if you use it, you cannot use horticultural oil because the combination of the two will damage the foliage. If you also have a problem with spider mites, choose the horticultural oil option.

Black spot is more difficult to control because it can cause cankers on the stems that serve as a source of spores for the foliar phase of the disease. In early spring, check rose stems carefully for signs of cankers, and remove badly infected ones. As new growth emerges, spray the plants thoroughly with lime sulfur. Follow up with weekly sprays of a fixed-copper fungicide through the wet part of your growing season. Anything that you can do to keep water off the leaves is helpful. I know one devoted rose grower who uses a leaf blower to blow the residual water off his roses to promote rapid drying. The blower also encourages infected leaves to fall from the plants, and he collects these and buries them so the black spot spores cannot find their way back to his roses. There are other controls listed for black spot, such as neem oil and potassium bicarbonate, but I have not found them to provide good control where climatic conditions are strongly favorable for the fungus.

The bottom line is that you can still grow lovely roses even if you don't care to use harsh pesticides. Select the most disease-resistant cultivars for your region, provide ideal growing conditions, monitor them, and enjoy the results. 

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

The Beet Grows On

by Kris Wetherbee



from glossy green with red veins to purple and burgundy.

GROWING GUIDELINES

Beets are a cool-season crop, so they can be grown in spring or fall. If your aim is to harvest the greens, they will grow in almost any soil in full sun or light shade. But the roots do best in soil that is deep, moist, well drained and rich, with a pH between 6 and 7. Raised beds and plenty of organic matter such as compost help improve drainage and lighten soil.

Beets that grow slowly tend to produce either stunted roots, or roots that are tough and pithy. A good supply of phosphorus and potassium are keys to good root production. Adding bone meal or rock phosphate prior to planting will give you an edge on growing tasty roots, as will consistent and regular watering. Mulching plants helps keep roots cool and ensures more consistent moisture levels.

PESTS AND DISEASES

Flea beetles can congregate in early spring but rarely cause significant damage. Leaf miners can blister the leaves but are easily controlled by removing infested leaves. Keep your growing area free of weeds to discourage leaf hoppers from taking up residence. If any of these pests are prev-

AS A KID, I wanted nothing to do with beets. But the beets I was familiar with then were the commercially canned version. All that changed years later when I took my first bite of a fresh, oven-roasted beet. Roasting heightens the beet's sweetness and brings out its rich, earthy flavor.

Beets (*Beta vulgaris*) are nutritious two-in-one vegetables enjoyed for their colorful roots as well as their tender

greens. When it comes to the roots, these jewels of the earth are rich in antioxidants and phytonutrients, and the hearty greens are rich in flavanoid antioxidants and vitamins A, C, and K.

The globular roots come in a range of colors, from red to deep purple, yellow to golden orange, or creamy white. Some varieties sport concentric rings of alternating bright pink and white. The color of beet tops also varies among varieties,

Sources

Baker Creek Heirloom Seeds, Mansfield, MO. (417) 924-8917. www.rareseeds.com.

High Mowing Organic Seeds, Wolcott, VT. (802) 472-6174. www.highmowingseeds.com.

Johnny's Selected Seeds, Winslow, ME. (877) 564-6697. www.johnnyseeds.com.

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

'Chioggia', an heirloom cultivar from Italy, has visual appeal and a pronounced sweet flavor.

PLANTING BASICS

Getting Started Whether you are direct seeding or setting out transplants, the key is to have plants mature before extreme heat or hard frosts set in. Sow spring crops about four weeks before the last expected spring frost; sow fall crops about eight weeks before the first expected fall frost. Soak seeds at least 12 hours prior to sowing to improve germination, which takes between six and 16 days.

Spacing Sow seeds in a furrow about a half-inch deep and one to two inches apart—with rows spaced 12 to 16 inches apart. A beet seed is actually a capsule containing several embryos, and each cluster can produce two to five seedlings. Once seedlings emerge, use small scissors to carefully snip away all but one seedling per cluster. Thin again when seedlings are three to four inches tall so they are three to four inches apart from each other.

Transplants If your spring is unusually wet or cool, or to get a jump on the season and improve germination rates, you can start seeds indoors four to six weeks before transplanting in the garden. The seedlings will tolerate light frosts, though spring transplants should be hardened off before putting them in the ground. Transplant two to four weeks before your last expected spring frost, or five to six weeks before your first fall/winter frost date.

Days to Harvest 35 to 65 days, depending on variety and whether grown for greens or roots.



Beet greens are best when they are harvested before they reach six inches in height.

alent in your area, using row covers will curb infestations.

Beet roots are susceptible to scab, which appears as brown rough spots on the skin. The disease, which also affects potatoes, is easily prevented with a three-fold tactic: crop rotation of at least two years between potatoes or beets; keeping your soil pH around 6; and keeping roots well-irrigated.

RECOMMENDED VARIETIES

All varieties can be used for roots and greens, but if you favor the green tops, gold varieties such as ‘Touchstone Gold’, ‘Gourmet Golden’, or ‘Boldor’ have very productive tops and a pleasing appearance. ‘Early Wonder Tall Top’ features vigorous tops with glossy green, red-veined leaves. ‘Bull’s Blood’ is an heirloom variety with intense, dark red leaves.

When it comes to roots, some varieties tend to be sweeter than others. For sweet reds, try ‘Pacemaker III’, ‘Merlin’, or ‘Lutz Green Leaf’, also known as ‘Winter Keeper’. ‘Chioggia’, with its pink-and-white interior rings, is as sweet as it is

pretty. Gold varieties such as ‘Touchstone Gold’ and ‘Gourmet Golden’ are sweeter than many others, often with a hint of sweet potato flavor. And white varieties such as ‘Blankoma’ tend to have the highest sugar content of all.


ENJOYING THE HARVEST

Beet greens can be harvested for salads when just two inches tall and remain tender until they reach about six inches. Older leaves are better lightly steamed, sautéed, or braised. Harvest individual leaves sparingly as the roots mature or cut leaves off the root after it has been harvested. Store rinsed and dried tops in a plastic bag in the refrigerator; use within a few days.

The roots can be peeled and grated for adding raw to salads. The unpeeled roots can be simmered, steamed, or roasted, then peeled after they have cooled; this keeps them moist and flavorful. For the most tender roots, harvest while still young and small—between one and three inches in diameter. Bigger roots lose sweetness and may become pithy. Cultivars suitable for winter storage,

such as ‘Flat of Egypt’, are the exception; they develop huge tops with big roots that are great to eat at almost any size.

Though the roots can withstand frost and mild freezing, always harvest fall beets before a hard freeze. Harvesting when the soil is moist makes digging easier. Brush off any soil, then remove tops (store separately), leaving an inch of the stem still attached to the root. Store unwashed roots in plastic bags in the crisper drawer of your refrigerator for up to four weeks. For longer-term root storage, place roots in sand or sawdust and store in a root cellar or other cool location (35 to 40 degrees Fahrenheit).

However you prepare them, home-grown beets beat commercially canned ones any day. Both their leaves and roots make a delicious, nutritious, and colorful addition to various dishes. Plus, they are relatively quick and easy to grow yourself, so be sure to save a spot for them in your garden this fall. 

Freelance writer Kris Wetherbee gardens in Oakland, Oregon.

50th Anniversary for National Tropical Botanical Garden

by Margaret A. Haapoja

ON THE Hawaiian Island of Kauai, the National Tropical Botanical Garden (NTBG)—then known as the Pacific Tropical Botanical Garden—was established five decades ago. It traces its roots to 1964, when President Lyndon Johnson signed a bill creating the entity that now comprises five gardens—four in Hawaii and one in Florida—each with distinct collections and programs.

Chipper Wichman, NTBG's chief executive officer, says the Garden has changed dramatically over the past half century. "When we broke ground here in 1970, you could count the number of employees on the fingers of your two hands," Wichman says. "We now have over 100 employees, and we're a key player in implementing the global strategy for plant conservation."

NTBG has been celebrating its anniversary all year with special events at its gardens in Hawaii and Florida (see sidebar on page 44 for upcoming events). In honor of the anniversary, here's a brief chronicle of the history and programs of the five NTBG gardens.

ALLERTON GARDEN

Located in the Lawai Valley of Kauai, the Allerton Garden dates back to Hawaiian Queen Emma, who planted slips of bougainvillea there in 1871. Curtains of the brilliant magenta-flowered woody vine now cascade down the cliffs at the garden's entrance. Much of the credit for this garden's artistic design, impressive classic statuary, and interesting plants goes to Robert Allerton and his son, John. The Illinois natives purchased the property in 1937 and began developing the gardens, a project that consumed the rest of their lives. It became part of NTBG in the early 1990s.

At the entrance to Allerton Garden, a panoramic vista unfolds above the tops of swaying palms, towering banyans, and monkeypod trees. Verdant tropical vegetation carpets the valley, and the Lawai



Allerton Garden features imposing specimens of Moreton Bay figs, which are native to Australia.

stream empties into the azure water of the Pacific alongside the Allerton mansion. Sights and sounds of civilization disappear as birdsongs and the melody of flowing water take their place. The Allertons intentionally incorporated the music of running water to lead visitors from one garden room into another.

A statue of Diana, the Roman goddess associated with the woods and mountains, presides over her pool and gazes a lattice-work gazebo. Two bronze mermaids frame a 126-foot-long runnel like bookends. Massive buttress roots of Moreton Bay fig trees provided a perfect setting for filming portions of the movie "Jurassic Park." Throughout, the emphasis is on the textures and shapes of foliage plants. Giant glistening leaves of monstera contrast with fine foliage of maidenhair ferns. Wide expanses of neatly manicured lawns are framed with tall tropical trees.

MCBRYDE GARDEN

In 1964, Robert Allerton's check for \$1 million made possible the purchase of the NTBG's original 171 acres adjoining the Allerton Garden. That property is now the McBryde Garden, which has from the beginning been the primary research and educational component of the NTBG.

Here scientists study native Hawaiian plants, some 50 percent of which are rare and endangered. Scattered along the floor of the valley are major botanical collections, including 24 species of *Pritchardia*, the only palm endemic to the Hawaiian islands, and 20 cultivars of breadfruit tree (*Artocarpus altilis*), which produces a staple food item of the South Pacific.

The McBryde Garden also includes an administrative office complex, an 8,000 volume research library, a herbarium housing 70,000 specimens of preserved plants, and a conservation



Lawai Stream, shown here at Stillwater Dam, flows through part of NTBG's McBryde Garden.

and horticulture center that includes a micropropagation lab.

A complete renovation now in progress will make the McBryde Garden even more visitor-friendly. Scheduled to open on August 19 this year as part of NTBG's 50th anniversary celebration is a biodiversity trail chronicling the evolution of life on Earth. Visitors will travel through time in a series of tunnels, starting with exhibits showing the earliest forms of plant life and ending their journey in an orchid garden and tea house.

LIMAHULI GARDEN AND PRESERVE

North of Princeville on the humid, windward shore of Kauai, the road narrows and crosses a series of one-lane wooden bridges. A small sign signals the entrance to Limahuli Garden, a 1,000-acre site donated to NTBG in 1976 by Juliet Rice Wichman and her grandson, Chipper, who's now NTBG's CEO. Limahuli is surrounded by steep cliffs and valleys as velvety as green corduroy. In 1997, the American Horticultural Society gave Limahuli a special award as the best natural



Terracing is an effective technique for gardening on steep terrain at Limahuli Garden.

Additional Information

National Tropical Botanical Garden

3530 Papalina Road
Kalaheo, HI 96741. (808) 332-7324.
www.ntbg.org.

- The Southshore Visitor's Center and Garden (providing access to the McBryde and Allerton gardens) is open 8:30 a.m. to 5 p.m. daily, free of charge.
- Days and hours of operation for individual gardens vary—check website for details.
- Guided tours of the individual gardens can be reserved in advance for a fee.

Another nearby site to explore:

Na 'Aina Kai Botanical Gardens, Sculpture Park & Hardwood Plantation, Kilauea, HI.

www.naainakai.org.

botanical garden in the United States.

Kawaka Winter, Limahuli's director, hopes that the garden will help visitors appreciate the importance of their connection with nature. "People need to understand that the health of their ecosystem directly correlates to the health of their bodies and their lives," Winter says. He has recruited community members to participate in resurrecting traditional varieties of taro, once a staple in the diet of native Hawaiians. Seventy-two varieties, a fraction of the approximately 400 that grew in Hawaii 150 years ago, are now cultivated at Limahuli. "Only four of them are commercially grown," says Winter, "so the vast majority are maintained only in collections such as ours."

Guests touring Limahuli also learn about the garden's work to conserve threatened native species and control invasive plants. "When people leave Limahuli," says Wichman, "they look at the environment in a much different way. They realize there's a struggle taking place between native and introduced plants."

KAHANU GARDEN

Near the village of Hana on the island of Maui is Kahanu Garden, a remote site that features the largest *heiau*, or ancient temple of worship, in Polynesia. The *heiau* has been a National Historic Landmark since 1964. Beneath the *heiau*, Hawaii's largest stand of hala (*Pandanus* sp.), a palmlike tree, lines Maui's rugged coastline. Kaha-

nu is known for its displays of native Hawaiian plants such as taro, sweet potato, sugar cane, and bananas. The garden is designed to demonstrate and celebrate the cultural relationships between the Polynesians and these “canoe” plants, which were so named because they were transported around the Pacific on canoes.

Kahanu also contains the largest collection of breadfruit in the world, some 130 cultivars. These trees were collected by Diane Ragone, director of NTBG’s Breadfruit Institute. Scientists at the Institute are studying breadfruit’s nutritional values and conducting tissue culture experiments with cultivars from the Kahanu collection with the goal of distributing plants to tropical nations that might benefit from a new food source. “We’re just at the tip of the iceberg in terms of breadfruit potential,” says Wichman, “and Diane has unlocked that potential through micro-propagation. We now have pilot breadfruit projects in 25 countries, and more than 60 countries have expressed interest in breadfruit.”

KAMPONG GARDEN

The only NTBG garden outside Hawaii, Kampong Garden is in Coconut Grove, Florida, located along Biscayne



The Kampong was the home of horticulturist and plant explorer David Fairchild.

Bay south of metropolitan Miami. The Kampong—from the Malaysian word for “village”—contains a fascinating array of tropical fruit cultivars and flowering trees. The focus at this garden is to use the property’s unparalleled living collections for educational programs. It serves as the mainland campus for the NTBG’s educational offerings and is a living classroom that universities and colleges use to teach botany and horticulture.

Some of the first plantings were brought to the Kampong from southeast Asia by David Fairchild, who owned the property in the early 1900s. The intrepid American plant explorer and horticulturist filled his garden with ornamental, edible, and ethnobotanic plants. Visitors can tour his home, where he wrote memoirs of his travels, such as *The World Was My Garden*, published in 1938. American botanist and philanthropist Catherine Sweeney, who followed Fairchild as owner of the Kampong, donated the garden to NTBG in 1984. Today, it contains a diverse array of plants from the tropics and warm subtropics, including fruits, palms, flowering trees, flowering shrubs, and vines.

Through a collaboration with Florida International University, NTBG is now developing the International Center for Tropical Botany (ICTB) at the Kampong. The ICTB will provide research-based knowledge and tools to preserve and sustainably cultivate tropical plants and develop programs to educate future generations of biologists specializing in tropical plants.

LOOKING AHEAD TO THE NEXT 50

In this era of climate change and focus on sustainable agriculture, the mission of NTBG is more important than ever. “We now know that more than 80 to 90 percent of all biodiversity on earth exists in the tropics,” says Wichman. “We also know that roughly one third of all tropical plants are threatened with extinction. So we have a unique opportunity in that our gardens are in the only American states located in this very important part of the world. And the importance of our mission is heightened by this awareness that plants are the keystone species in almost every ecosystem. They provide habitat, structure, and food, and they are essential to the survival of all other components of those ecosystems.”

Margaret A. Haapoja is a freelance writer based in Bovey, Minnesota.

UPCOMING ANNIVERSARY EVENTS

For more information about these events, visit the NTBG website (www.ntbg.org).

- Through August 29: **The Living Endemic Birds of Hawai‘i Art Exhibition**, showcasing paintings by Marian Berger. Botanical Research Center, NTBG Headquarters, Kalaheo, Kauai, Hawaii.
- August 9: **Moonlight & Music in the Garden**, a fundraiser for the NTBG, McBryde Garden, Lawai Valley, Kauai, Hawaii.
- August 19: **Dedication of the McBryde Garden’s new Biodiversity Trail**, McBryde Garden, Lawai Valley, Kauai, Hawaii.
- October 7: **Agents of Change—Botanic Gardens in the 21st Century**, a symposium co-sponsored by NTBG and the Smithsonian National Museum of Natural History, Washington, D.C.
- October 7: **Gala Dinner—An Evening with Thomas L. Friedman**, Pulitzer prize-winning author and columnist, St. Regis Hotel, Washington, D.C.



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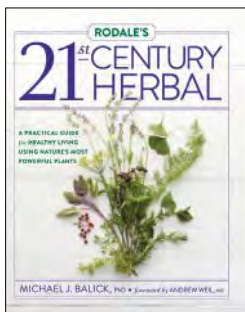
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Recommendations for Your Gardening Library

Rodale's 21st Century Herbal

Michael J. Balick. Rodale Publishing, Emmaus, Pennsylvania, 2014. 512 pages. Publisher's price, softcover: \$35.

THAT MICHAEL J. BALICK is an authority in the fields of ethnobotany, biology, and all-things-herbal is evident in the quality and quantity of information contained in *Rodale's 21st Century Herbal*, expertly edited by Vicki Mattern. This weighty, 500-plus-page tome is chockful of herbal information, organized into three main, color-coded sections.



The first part of the book offers a global perspective on herbal use, the basics of herbal botany, and a primer on how herbs work. Balick discusses how people around the world use

herbs and includes charts of the important herbs of each country and their uses, which I found brilliant. The botany section is straightforward, illustrated in detail with delightful drawings by Lizzie Harper. To explain how herbs work, their plant chemistry is discussed in layman's terms.

Next is an encyclopedia of "Herbs to Know," which includes not only herbs but exotic spices and other useful plants—180 of them to be exact. Organized by botanical name, each entry has a plant profile; a bit of history or lore; descriptions of culinary, medicinal, and ornamental uses; as well as information on how to grow it. Stunning photography by Steven Foster, a noted herb expert in his own right, provides visuals for each plant.

The third section is a guide to using herbs for cooking, health and healing, personal care, and around the home. Here you'll find recipes for everything from herb simples to bathroom cleansers to healthy pet treats. The "Herbal Health" chapter includes an interesting discussion of herbal and holistic medicine today as well as an in-depth chart on healing herbs and their uses written by one of the nation's leading herbalists, Tierona Low Dog. Chapters on the basics of growing herbs and designing herb gardens round out the book, complete with helpful illustrations, plant lists, and charts.

This all-in-one guide for beginning and intermediate gardeners also serves as a comprehensive reference for the advanced herbalist. I can already tell this is one book that won't get dusty on my own shelves!

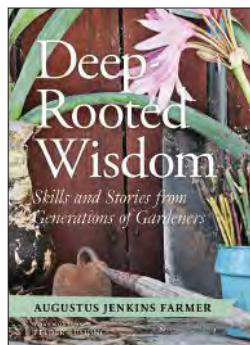
—Susan Belsinger

Susan Belsinger is an herbalist, author, and educator who contributes regularly to Taunton Press's Vegetable Gardener blog at www.vegetablegardener.com.

Deep-Rooted Wisdom

Augustus Jenkins Farmer. Timber Press, Portland, Oregon, 2014. 248 pages. Publisher's price, softcover: \$24.95.

MAYBE IT'S the time spent with hands in the soil that keeps us humble and connected to one another, because it is the nature of most gardeners to be generous with knowledge as well as plants. In this spirit, Augustus Jenkins Farmer—who goes by Jenks—thoroughly claims his role as teacher, while honoring those who taught him. In *Deep-Rooted Wisdom*, he explores the essence of gardening and wraps it in memorable personalities, especially his own.



In the interest of full disclosure, I had the good fortune to meet

Jenks years ago, and our paths continue to cross. I admire the garden design work he does, and I've visited his family farm in South Carolina, where he grows his beloved crinum. Regardless of this, I find Jenks to be an expert storyteller who provides context and relevance to gardening know-how that simply can't be learned from textbooks.

Many of the stories center on garden lessons Jenks learned from family members and friends close to him. But the characters are universal, lovable people that most of us can identify with. For example, an immigrant gardener who introduces you to a new vegetable, or a neighbor who shares cuttings and divisions of unusual plants.

Other discussions reveal his personal philosophies about everything from soils and the impact of tilling to fertilizers and pesticides; homemade structures and garden consumerism; the how and why of watering by hand; and a plea for the disappearing art of wielding hand tools. For each, he connects the dots between the way things were done in the past, how we do them now, and—in his thoughtfully considered opinion—the direction we should consider going from here to become more conscientious and resourceful gardeners.

Jenks writes with a comfortable intensity. Without that patient but keen focus, he would not have had such soulful stories to tell. This book is a compelling tour through generations of hard-won gardening wisdom and traditions, through the eyes of Jenks Farmer and his own garden mentors.

—Linda Askey

Linda Askey is a horticulturist by training, a gardener by compulsion, and a writer by practice, who lives in Birmingham, Alabama.

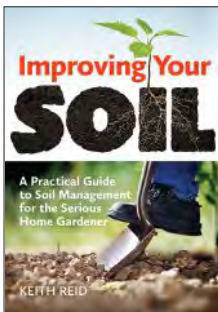
Improving Your Soil

Keith Reid. Firefly Books, Buffalo, New York, 2014. 300 pages. Publisher's price, softcover: \$29.95.

SOIL IS THE foundation of every single thing a gardener does, yet many people simply accept what soil they have without further consideration. In *Improving Your Soil*, author Keith Reid draws on his 30 years of experience as a soil scientist to explain not only how soil works, but why it matters to the gardener. The end goals are a better garden through better soil and more of an appreciation for the “many wonders of what goes on under your feet,” writes Reid.

Subtitled “A Practical Guide to Soil Management for the Serious Home Gardener,” this book is so comprehensive, it would make an excellent textbook for an entry level college course on soils. As you might expect, it begins with the basics: an overview of what soil is and its various functions. Subsequent chapters explain everything from soil types and the difference between soil texture and structure to pertinent soil chemistry, the science of nutrient holding capacity, and the vital role soil organisms of all kinds play in healthy soils.

The book also delves into how to improve your garden soil after your newfound knowledge helps you become familiar



with its particular characteristics. All the common soil issues one would expect to run into are covered. For example, you'll find information on how to attain a desired pH and ways to remedy drainage issues. Each concept is explained plainly and supplemented with easy-to-understand charts and diagrams. However, because “soils vary widely,” Reid emphasizes that “there is no one ‘recipe’ that can solve all soil problems.” Instead, he notes, “the way you manage them must be specific to your own soil conditions.”

Reid points out that taking proper care of your soil is also important to avoid creating new problems. Considerations include using appropriate cultivation methods, the choice of organic versus mineral fertilizers, and managing pests and diseases in ways that won't damage the soil. You'll find tidbits like the “dark side of mulch” and why ice-melting products aren't always to blame if your soil has high salt levels.

Improving Your Soil will not only give you a better understanding of soil in general and how it works, but also will help you make more informed choices to improve and manage its performance in your own garden. Somewhere along the way, you might suddenly find yourself as fascinated by the soil as you are with the plants growing in it.

—Jeff Lowenfels

Jeff Lowenfels, who hails from Anchorage, Alaska, is the author of two award-winning books, Teaming with Microbes and Teaming with Nutrients, both published by Timber Press.

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Horticultural News and Research Important to American Gardeners

STEVIA-BASED SWEETENER SHOWS INSECTICIDAL PROPERTIES

The stevia plant (*Stevia rebaudiana*) has long been used as a sweetener and several brands of sugar substitutes contain extracts from it. One of these brands, known as Truvia®, also can act as an insecticide, according to a study published in June in the peer-reviewed journal, *PLOS ONE*. Inspired by a sixth-grade science fair project



Extracts from the stevia plant are used in some sugar substitutes, including Truvia, which proved toxic to fruit flies in a recent study.

on the effects of various sugar substitutes on fruit flies, scientists at Drexel University in Philadelphia, Pennsylvania, found that Truvia is highly toxic to fruit flies.

In addition to Truvia, the researchers tested the effects on fruit flies of regular sugar, PureVia® (another sugar substitute derived from stevia), and erythritol, a bulk component of Truvia. The insects that ingested Truvia or erythritol had a much higher mortality rate than those that consumed either sugar or PureVia. Because PureVia contains dextrose instead of erythritol as a bulk component, the researchers concluded that this substance is what is actually toxic to the fruit flies. Further experiments also showed that fruit flies appear to prefer erythritol to sugar when given the choice.

Based on these results, the researchers suggest that further investigation of erythri-

tol may yield “a novel, effective, and human safe approach for insect pest control.”

JOE-PYE WEEDS SHINE IN STUDY

Highly attractive to butterflies, bees, and other pollinators, “Joe-Pye weeds and their relatives are underrated native plants that possess many great garden qualities,” says Richard Hawke, plant evaluation manager at the Chicago Botanic Garden in Glencoe, Illinois. Hawke recently completed a 12-year trial of 26 taxa of Joe-Pye weed and related genera that tested them for adaptability to a sunny and windy test site and for their disease resistance, winter hardiness, and ornamental qualities. Four plants received top marks for their performance in all these areas: *Ageratina altissima* ‘Chocolate’, *Eutrochium dubium* ‘Little Joe’, *Eutrochium fistulosum* ‘Carin’, and *Eutrochium fistulosum* f. *albidum* ‘Bartered Bride’.

Additionally, Hawke reports that most species had excellent flowering production, except *Eutrochium dubium* and the only non-native species evaluated, *Eupatorium cannabinum* ‘Flore Pleno’. Despite *Conoclinium coelestinum*’s reputation as

an aggressive spreader, it did not spread widely in this trial and stood out for its azure blue flowers. And though *Eutrochium maculatum*’s floral display was rated “good,” two of its cultivars, ‘Purple Bush’ and ‘Phantom’, offered better blooms.

“Overall, nearly half of the taxa received good or excellent final ratings,” notes Hawke, “showing that these common wildflowers are uncommonly good garden plants, too.” For more information, visit www.chicagobotanic.org/research/plant_evaluation.

PETER RAVEN RECEIVES U.S. NATIONAL ARBORETUM'S MEDAL OF EXCELLENCE

In June, Peter Raven became the third recipient of the rarely given Medal of Excellence from the U.S. National Arboretum in Washington, D.C. Raven began his career as a botany professor at Stanford University in California. From there, he was recruited to expand the Missouri Botanical Garden in St. Louis. During his 40 years as president of that garden, he led a team that dramatically increased visits by the public, which in turn supported scientific research and



In a trial at the Chicago Botanic Garden, *Eutrochium maculatum* ‘Purple Bush’ received high marks for its dense, bushy habit, prolific flowering, and good resistance to powdery mildew.

plant collecting expeditions. A past recipient of the MacArthur Foundation



Peter Raven

“genius grant,” Raven dedicated his career to increasing public understanding of and appreciation for biodiversity, including the importance of preserving plant species. For more information visit the U.S. National Arboretum’s website at www.usna.usda.gov.

CREATING BUZZ FOR POLLINATORS’ PLIGHT

A yearly survey of around 7,200 beekeepers in the U.S. found that between October 2013 and April 2014, 23.2 percent of honey bee colonies were lost nationwide. The survey, released in May by the Bee Informed Partnership of the U.S. Department of Agriculture (USDA) and the University of Maryland, indicated a small improvement in bee colony survival from the 30.5 percent loss the previous year during the same months and from the eight-year average loss of 29.6 percent.

These fluctuations hint at the complexity of bee health, says Jeff Praxis, a co-author of the survey and research leader of the Agricultural Research Service Bee Research Laboratory in Beltsville, Maryland. Praxis says factors impacting bee colonies include “viruses and other pathogens, parasites like Varroa mites, problems of nutrition from lack of diversity in pollen sources, and even sub lethal effects of pesticides combining to weaken and kill bee colonies.”

The continuing decline of bees and other important pollinators has spurred increasing efforts to raise awareness and support for the issue by the USDA and the White House. For example, in April during the sixth annual White House Kitchen Garden Planting, First Lady Michelle Obama led a group of young students and FoodCorps volunteers in planting wildflower seeds to establish the first-ever White House pollinator garden. The garden will grow near the more than 70,000 bees residing at the White

House beehive, built in early 2010.

In May, the USDA launched its “bee cam,” a live stream of the two beehives located on the rooftop of its headquarters in Washington, D.C. Now, people anywhere in the world can watch these honey bees busily buzzing in and out of the hives by going to www.usda.gov/bee-watch. This website also provides information about gardening for pollinators.

Then, during Pollinator Week in June, President Obama issued a memorandum to establish the Pollinator



A “bee cam” allows viewers to observe activity at the hives at USDA headquarters.

Health Task Force to facilitate cooperation between federal departments and agencies addressing the issue. The new task force is charged with creating pollinator habitat, conducting research on pollinator health, launching public education campaigns, and forging beneficial public-private partnerships in support of pollinators. Learn more about this Presidential Memorandum at www.whitehouse.gov/briefing-room.

GARDEN CLUB OF AMERICA NATIONAL AWARD WINNERS

In May, the Garden Club of America presented its National Medals to 10 “nationally or internationally recognized leaders in their fields of study or achievement.” Among the 2014 winners is Mary Stone Phipps, who received the Distinguished Service Medal for her horticultural prowess while developing Old Westbury Gardens in Long Island, New York. Phipps has spent more than 50 years transforming her family’s private



Mary Stone Phipps

Old Westbury Gardens in Long Island, New York. Phipps has spent more than 50 years transforming her family’s private

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estate into a 200-acre, world-class expanse of formal gardens, woodlands, ponds, and lakes for all to enjoy. She has also worked to preserve historic buildings on the property and protect the area's watershed.

Other medalists include John H. Bryan of Lake Bluff, Illinois, who received the Elizabeth Craig Weaver Proctor Medal for his exemplary service and creative vision that led to the creation of Chicago's Millennium Park; the Legacy Parks Foundation of Knoxville, Tennessee, recognized with the Cynthia Pratt Laughlin Medal for outstanding achievement in environmental protection and the maintenance of quality of life, particularly through its 1,000-acre Urban Wilderness Corridor along Knoxville's downtown waterfront; and Steve Curwood, host and executive producer of National Public Radio's "Living on Earth" show, who received the Margaret Douglas Medal for notable service to the cause of conservation education.

For more information about these and the other GCA award-winners, visit www.gcamerica.org.

NEW ONLINE RESOURCE FOR LOCATING LOCAL BLOOMS

While doing research for her book, *The 50 Mile Bouquet* (St. Lynn's Press, 2012), Debra Prinzing discovered how challenging it was to determine the origins of cut flowers in the floral industry. Enter Slowflowers.com, which Prinzing launched recently to address this challenge. "With imports representing



over 80 percent of flowers sold in this country," she says, "the mission of Slowflowers.com is to help people who care about the source of their flowers easily find and identify ways to buy American-grown flowers."

As a nod to the "slow food" movement—which is focused on seasonal and local food—Prinzing coined the term "slow flowers" to give a name to the "arti-

sanal, anti-mass-market approach to celebrations, festivities, and floral gifts of love." Slowflowers.com promotes this concept by connecting users to local farms or wholesalers with domestic-only flowers from which they can buy directly, as well as providing a listing of regional floral workshops and classes. Although the majority of floral businesses listed on the website to date predictably occur on the east and west coasts, Prinzing hopes to one day have at least one listing for every state.

APHID SALIVA PROTECTS PLANTS

It's doubtful that the average person spends much time contemplating aphid saliva, but it could provide new ways to develop plants that are better able to resist insect attacks.



As aphids feed, proteins in their saliva trigger a defense mechanism in plants.

The saliva has been shown to trigger defense mechanisms in plants when aphids start feeding, but until now not much was known about why this occurs. In a study published in June in the journal *Proceedings of the National Academy of Sciences*, scientists from the University of California, Riverside suggest that a protein known as "GroEL" plays an important role.

According to Isgouhi Kaloshian, professor in the Department of Nematology at the University of California Riverside who led the study, animals have previously exhibited immune responses when exposed to GroEL, but observing a similar response to the protein in plants is a new discovery. Interestingly, this protein is not produced by the aphid itself, but originates from the bacterium *Buchnera aphidicola* that lives symbiotically within aphids, explains Kaloshian. In exchange for living quarters, *Buchnera* provides

aphids with essential amino acids or its precursors that they cannot adequately get from plant sap.

Kaloshian notes that *Buchnera* is harbored by many other herbivorous insect species, so these new findings may potentially apply to a variety of host plants and their interactions with pests. Ultimately, the researchers hope that GroEL can be used to heighten resistance in susceptible plants.

PROLONGED DROUGHT CAUSES MASSIVE GRASSHOPPER SWARM

A swarm of grasshoppers dense enough to look like a rain storm on the National Weather Service's radar swept through western Albuquerque, New Mexico, raising the hairs of Albuquerque's resident gardeners and farmers in late May. According to the National Weather Service, this past January and February were the driest on record for New Mexico, followed by below average precipitation in March and April. With a prolonged drought in an already semi-arid and arid landscape, even generalists like grasshoppers can be hard pressed to find food.

Massive grasshopper swarms occur sporadically, with the last expansive and damaging swarm in New Mexico occurring in the late 1980s. While that swarm affected thousands of acres of rangeland, the most recent swarm in May reportedly only destroyed one field of seedlings and caused patchy landscape damage. Because of the complexity of population dynamics, it's hard to predict if such swarms will worsen with continued drought. "If it's too dry when pests are on the verge of hatching or molting into a particularly damaging stage," explains Carol Sutherland, the extension entomologist at the New Mexico Department of Agriculture, "then they starve or make easy pickings for predators."

However, if gardeners do find themselves in a swarm, Sutherland advises using row covers to protect the most vulnerable plants. "Experienced gardeners are well aware that plants vary by species, variety, development stage, and vigor in their susceptibility to insect damage," says Sutherland. "Seedlings and transplants can be destroyed with just a bite or two."

News written by Editorial Intern Sarah Miller with AHS staff.



In Memoriam: Kurt Bluemel, King of Grasses

by David J. Ellis

Kurt Bluemel, one of America's leading plantsmen, died in June at the age of 81 following a brief illness. A gregarious man with a larger-than-life personality, Bluemel is one of several American horticulturists credited with sparking a nationwide boom in the use of herbaceous perennials and ornamental grasses in the 1980s. Bluemel introduced hundreds of plants, including the switch grass (*Panicum virgatum*) selection 'Heavy Metal' and compact Joe-Pye weed (*Eutrochium purpureum* ssp. *maculatum*) selection 'Gateway'.



Kurt Bluemel at his nursery

A sought-after landscape designer, Bluemel worked on many high-profile public and private gardens. His most challenging project came in the mid-1990s, when he was commissioned to design and provide plants for a replication of an African savannah in Walt Disney World's Animal Kingdom exhibit in Orlando, Florida.

Born in Czechoslovakia (now the Czech Republic) in 1933, Bluemel cut his horticultural teeth at the Arnold Vogt Gartenbau, a nursery in Switzerland. After arriving in the United States in the early 1960s, he initially worked at Bluemount Nurseries in Monkton, Maryland. In 1964, with the help of business partners that included renowned landscape designer Wolfgang Oehme, he started his own nursery, Kurt Bluemel, Inc., in Baldwin, Maryland. Over time the wholesale nursery came to offer nearly 1,000 grasses, sedges, and herbaceous perennials. This nursery's impressive reputation attracted young people from all over the world to intern or work at the nursery.

Bluemel was active in many horticultural organizations, including the Perennial Plant Association (PPA), the Nursery



Above: Kurt Bluemel helping plant the meadow at River Farm named in honor of his son in 2007. Top: The André Bluemel Meadow in summer.

Growers of America, and the American Horticultural Society. He was chair of the AHS Board of Directors from 2002 to 2005. He also designed and provided more than 100,000 plants for a four-acre meadow at the AHS's River Farm headquarters that was named the André Bluemel Meadow in memory of his son, who died in 1976. He was a contributing editor for the AHS's *Encyclopedia of Perennials*, published in 2006.

Over a lifetime in horticulture, Bluemel received numerous awards for his work, such as the PPA's Award of Merit in 2003. Most recently, he received the AHS's Meritorious Service Award in 2013, in recognition of his boundless support of the Society.

For more about Bluemel's life and horticultural contributions, see the blog post by Allen Bush, one of Bluemel's long-time colleagues: http://humanflowerproject.com/index.php/weblog/comments/kurt_bluemel_all_the_glory_of_grass.

David J. Ellis is editor of The American Gardener.

Tools and Tips for Smart, Safe, and Healthy Gardening

by Rita Pelczar

THE GOOD NEWS is that the longer we garden, the smarter we become about growing plants well. The *bad* news is that the longer we garden, the more our bodies object to the hard labor that's required. Lifting pots, spreading mulch, turning compost, and digging planting holes are not activities for weaklings. My gardening ambitions often exceed my physical stamina, so I welcome tools that help me work more efficiently and comfortably.

Ergonomically designed tools aim to reduce muscle and joint stress by keeping the body in a neutral position. Many are lightweight and include features that maximize power by using the large arm and leg muscles so as to reduce strain on the smaller muscles in your wrists, shoulders, and hands. Using tools that suit your body size is important for maintaining proper posture and protecting your back from injury. And properly sized, padded grips increase both stability and comfort.

READY, SET, GO!

As with any type of exercise, stretching for five to 10 minutes before you begin gardening helps prepare your muscles for the workout to come. Dressing appropriately helps you avoid minor injuries in the garden. For outdoor activities, the Centers for Disease Control and Prevention (CDC) recommends wearing sturdy shoes, gloves, long sleeves, wide-brimmed hats, and sunglasses, and using sunscreen with a sun protective factor (SPF) of at least 15 as protection from damaging sun exposure.

For SPF 30 sun protection plus a safeguard against biting insects and pests, try **Bug Me Not Shirt and Pants**, available from Gardener's Supply Company. Both boast "Insect Shield Technology®," which imbeds the repellent permethrin into the garment's fabric to guard you from ticks, mosquitoes, chiggers, flies, and no-see-ums, and it lasts for up to 70



The Bug Me Not Shirt and Pants provide protection from insects while the Hergonomic® Shovel, designed especially for women, makes planting shrubs more efficient for the author.

washings. I like the option of wearing the insect-repelling clothes rather than spraying a repellent directly on my skin. The fabric is lightweight and very comfortable. (For more tips on garden safety, see the sidebar on the opposite page.)

BALANCE AND SIZE

Lightweight, well-balanced tools can make many chores easier. It's a good idea to try out tools before you purchase them, because when it comes to balance and weight, one size does *not* fit all. I like the gently curved



Ergonomic Trowel from Plow and Hearth

handles of the **Ergonomic Rake** and **Draw Hoe** from Plow and Hearth, which seem to provide just a little extra leverage for me. Each has polypropylene hand grips at both the end and middle, so your hands don't slip. Plow and Hearth also offers a line of short-handled tools: the **Ergonomic Trowel**, **Transplanter**, and **Weeder** have lightweight but durable aluminum blades and slightly curved handles with finger grips and a thumb rest.

The **Hergonomic® Shovel** from Green Heron Tools is my go-to tool when planting trees and shrubs. Designed specifically for women, it is lightweight—about four-and-a-half pounds—and has a padded D-grip handle that is wide enough for both hands. The tempered steel blade has a large step with raised treads and its slight tilt provides optimum leverage. The ash shaft is available in three lengths to accommodate different heights.

COMFORTABLE AND SECURE GRIP

A comfortable grip is essential if you're working for an extended time at any gardening chore. The **Good Grips Garden Scissors**, built for light pruning jobs as well as cutting twine or opening bags, have a loop handle that allows you to use your entire hand to make cuts, rather than just your fingers. The **Good Grips Bypass Pruner** is designed for cutting stems and branches up to three-quarters of an inch in diameter. Both have soft, non-slip handles that help reduce discomfort of repetitive squeezing motions. In addition to its non-slip handle, the **Good Grips Weeder** is equipped with a

GARDENING SAFETY TIPS

You are probably familiar with the following safe gardening tips from the Centers for Disease Control and Prevention (CDC), but they are worth repeating as we move into the warmest period of the year:

- Use sunscreen on any exposed skin and wear clothing that protects from sun and insects. If deer visit your garden, apply tick-repellents to your skin to reduce the risk of exposure to Lyme disease or other tick-borne illnesses.
- Wear appropriate safety gear—including gloves, goggles, ear protection, etc.—for whatever activities you are doing.
- Read and follow instructions for tools and chemicals; keep tools and equipment in good working order and well sharpened; keep all tools and chemicals out of the reach of children.
- Don't get overheated: Drink plenty of water, take breaks, pay attention to signs of heat-related illness such as headache, rapid pulse, dizziness, nausea, etc.
- If you've been relatively inactive, work for short spells at first, then gradually increase both the time and intensity of your tasks. Vary your gardening activities to avoid overusing the same muscles.
- Last but definitely not least, check with your primary care physician to make sure your tetanus and diphtheria vaccinations are up to date.

—R.P.



Good Grips weeder features a fulcrum.

triangular fulcrum for extra leverage for pulling weeds. All Good Grips tools are available from OXO.

Corona's **Comfort Gel Transplanter** and **Weeder** have cushioned, non-slip handles with a thumb rest for leverage and control. I like the serrated edge, which comes in handy for cutting roots or opening bags of fertilizer or mulch. The stainless steel blade of the transplanter is equipped with depth markings, and the forked, angled blade of the weeder provides excellent leverage for removing tap-rooted weeds such as dandelions.



Corona Comfort Gel Weeder

There's nothing like a sharp blade when you are making a lot of pruning cuts. Fiskar's **Loop-handle Carabiner Pruner**, **Shear Ease™ Grass Shears**, and **PowerGear® Softgrip Pruner** fit the bill. Their precision-ground steel blades have a low-friction coating that keeps them sharp and reduces sap build-up, which can gum up blades. The Car-



Fiskar's Shear Ease™ Grass Shears

abiner Pruner's built-in clip attaches to your belt loop so it's handy when you need it. The Grass Shears rotate 360 degrees so you can approach plants without twisting your hand at an awkward angle. Both the Carabiner Pruner and the Grass Shears have comfortable loop handles that are lightweight and afford good control. The PowerGear® Pruner's gears add significant leverage so less strength is required to make your cuts.

For removing larger branches, the **Safe-Grip Pruning Saw** from Gardener's Supply has an ergonomically designed, ribbed handle that ensures a secure grip

Sources

Clean Air Gardening,

www.cleanairgardening.com.

Corona Tools, coronatoolsusa.com.

Fiskars, www2.fiskars.com.

Gardener's Supply Company,

www.gardeners.com.

Green Heron Tools,

www.greenherontools.com.

OXO Good Grips, www.oxo.com.

Plow and Hearth,

www.plowhearth.com.

and a blade sheath protects your hand. The sharp-toothed, curved blade is just under 10 inches long and folds for safe storage.

Stout's **Back Saver Grip**, available from Clean Air Gardening, can be attached to any long-handled tool to increase leverage and reduce back strain. It's a sturdy plastic D-handle that is secured with four screws around the shaft of a shovel, rake, hoe, pitchfork, or pole pruner and can be moved from one tool to another. Attached to a rake, the additional grip reduces the need for bending; used on a pole pruner, it provides stability.

RAISED PLANTERS

For some people, bending over to tend a garden can be uncomfortable or even



Attached to the handle of a hoe, Stout's Back Saver Grip reduces strain by increasing leverage.

dangerous. But don't despair: Raised planters can bring your garden to a comfortable working height. There are many designs and kits for such planters that vary in size and material.

A good example is the **Vegtrug™ Patio Garden**, which won the Direct Gardening Association's 2012 Green Thumb Award for Outstanding New Product. Constructed of wood, it is attractive as well as functional. It is 30 inches wide

and is available in two lengths—39¼ and 70 inches. Its 31½-inch height is comfortable for working without bending. A fabric liner helps retain the soil mix but allows excess water to drain; like most raised gardens, frequent watering is necessary during warm, dry weather. The center of the V-shaped trough accommodates tomatoes, peppers, or other deep-rooted plants, while shallow-rooted plants such as salad greens can be grown toward the edges.

For working in raised beds, it can be helpful to have tools that extend your reach a bit. The **Gardener's Lifetime Long-Handled Raised Bed Cultivator** and **Trowel** do just that. With their 18-inch wooden handles and high-carbon steel blades, they reach to the back of your elevated planter from the front, even if one side is against a wall. Both these tools and the Vegtrug™ are available from Gardener's Supply Company.


COOL DOWN

When you finish working in the garden, it's a good idea to stretch your muscles again before heading for the shower or the porch swing. I like to cool down by taking a walk around my gardens, examining the results of my day's efforts and making plans for what I'll tackle next. 🌿


Rita Pelczar is a contributing editor for The American Gardener.



The elevated Vegtrug™ Patio Garden is a boon for gardeners with back problems.



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REGIONAL HAPPENINGS

Horticultural Events from Around the Country

NORTHEAST

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

RAP JULY 31. **Build a Terrarium.** Workshop for families. Merryspring Nature Center. Camden, Maine. (207) 236-2239. www.merryspring.org.

RAP AUG. 2. **Mornings in the Vegetable Garden.** Tour and talk. Blithewold Mansion, Gardens and Arboretum. Bristol, Rhode Island. (401) 253-2707. www.blithewold.org.

RAP AUG. 8. **Deer Resistant Plants for the Home Garden.** Lecture. Coastal Maine Botanical Gardens. Boothbay, Maine. (207) 633-4333. www.maine-gardens.org.

RAP AUG. 9. **Hay Day Family Festival.** The Fells Historic Estate & Gardens. Newbury, New Hampshire. (603) 763-4789. www.thefells.org.

RAP AUG. 14. **Tropical Bonsai.** Class. Brooklyn Botanic Garden. Brooklyn, New York. (718) 623-7200. www.bbg.org.

Looking ahead

SEPT. 13. **Gathering of Gardeners.** Symposium. Rochester Museum & Science Center. Rochester, New York. (585) 271-4320. www.gatheringofgardeners.com.

MID-ATLANTIC

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

JULY 27. **Understanding and Managing Urban Soils.** Workshop. U.S. Botanic Garden. Washington, D.C. (202) 225-8333. www.usbg.gov.

RAP JULY 30. **Grow it Yourself.** Workshop. Bartram's Garden. Philadelphia, Pennsylvania. (215) 729-5281. www.bartramsgarden.org.

AUG. 3. **What Makes a Habitat?** Lecture. Duke Farms. Hillsborough, New Jersey. (908) 722-3700. www.dukefarms.org.

AUG. 8–11. **Garden Writers Association Symposium.** The Westin Convention Center. Pittsburgh, Pennsylvania. (806) 832-1870. www.gardenwriters.org.

RAP AUG. 14. **Butterflies, Beetles, and Bugs, Oh My.** Photography workshop. Lewis Ginter Botanical Garden. Richmond, Virginia. (804) 262-9887. www.lewisginter.org.

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

RAP AUG. 16. **Some (Plants) Like it Hot.** Guided walk. U.S. National Arboretum. Washington, D.C. (202) 245-5898. www.usna.usda.gov.

RAP AUG. 20. **Ticks and Tick-borne Diseases.** Lecture. Blandy Experimental Farm and State Arboretum. Boyce, Virginia. (540) 837-1758. blandy.virginia.edu.

Looking ahead

SEPT. 12 & 13. **Heritage Harvest Festival.** Monticello. Charlottesville, Virginia. (434) 984-9880. www.heritageharvestfestival.com.

RAP SEPT. 12–14. **Fall Native Plant Sale.** Adkins Arboretum. Ridgely, Maryland. (410) 634-2847. www.adkinsarboretum.org.

RAP SEPT. 18–20. **Fall Plant Sale.** University of Delaware Botanic Gardens. Newark, Delaware. (302) 831-0153. www.ag.udel.edu/udbg.

SOUTHEAST

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

RAP JULY 31 & AUG. 1. **Horticultural Therapy Workshop.** Memphis Botanic Garden. Memphis, Tennessee. (901) 636-4100. www.memphisbotanicgarden.com.

RAP AUG. 1. **Plant ID Workshop.** Fairchild Tropical Botanic Garden. Coral Gables, Florida. (305) 667-1651. www.fairchildgarden.org.

RAP AUG. 9. **Summer Identification of Native Woody Plants.** Class. Birmingham Botanical Gardens. Birmingham, Alabama. (205) 414-3950. www.bbgardens.org.

RAP AUG. 10. **Tomato Festival.** The Arboretum, State Botanical Garden of Kentucky. Lexington, Kentucky. (859) 257-6955. www2.ca.uky.edu/arboretum.

AUG. 14. **Botany of the Bible.** Lecture.

Columbus Botanical Garden. Columbus, Georgia. (706) 327-8400. www.columbusbotanicalgarden.org.

RAP AUG. 16. **Hypertufa Planter.** Workshop. Knoxville Botanical Garden and Arboretum. Knoxville, Tennessee. (865) 862-8717. www.knoxgarden.org.

RAP AUG. 23. **Seed Swap.** Harry P. Leu Gardens. Orlando, Florida. (407) 246-2620. www.leugardens.org.

RAP AUG. 26. **Turn Red Clay into Soil.** Class. Atlanta Botanical Garden. Atlanta, Georgia. (404) 876-5859. www.atlantabotanicalgarden.org.

RAP AUG. 30. **Cactus and Succulent Sale.** University of South Florida Botanical Gardens. Tampa, Florida. (813) 974-2329. www.cas.usf.edu/garden.

Looking ahead

RAP SEPT. 27. **Fall Plant Sale.** Sarah P. Duke Gardens–Duke University. Durham, North Carolina. (919) 684-3698. www.gardens.duke.edu.

NORTH CENTRAL

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

JULY 28–AUG. 1. **Perennial Plant Symposium.** Perennial Plant Association. Cincinnati Hilton Netherland Plaza Hotel. Cincinnati, Ohio. (614) 771-8431. www.perennialplant.org.

RAP AUG. 5. **Seed Saving Workshop.** Greater Des Moines Botanical Garden. Des Moines, Iowa. (515) 323-6290. www.dmbotanicalgarden.com.

AUG. 7–10. **American Community Gardening Association Annual Conference.** The Field Museum. Chicago, Illinois. (877) 275-2242. www.communitygarden.org/conference.

AUG. 8. **Sweet Corn Festival.** Lauritzen Gardens. Omaha, Nebraska. (402) 346-4002. www.lauritzengardens.org.

RAP AUG. 12. **Plants for Hot, Dry Weather.** Walk and talk. Cox Arboretum MetroPark. Dayton, Ohio. (937) 434-9005. www.metroparks.org/Parks/CoxArboretum.

RAP AUG. 15. **Mid-America Bonsai Society Show & Sale.** Chicago Botanic Garden.

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

RAP AUG. 28 & SEPT. 1. **National Dahlia Show.** Grand Valley Dahlia Society. Frederik Meijer Gardens & Sculpture Park. Grand Rapids, Michigan. (231) 798-2915.
www.dahliaShows.com.

Looking ahead

RAP SEPT. 6. **Art Harvest and Fall Family Festival.** Green Bay Botanical Garden. Green Bay, Wisconsin. (920) 490-9457. www.gbbg.org.

RAP SEPT. 19–21. **Seed Savers Exchange Conference and Campout.** Seed Savers Exchange Heritage Farm. Decorah, Iowa. (563) 382-5990. www.seedsavers.org.

SOUTH CENTRAL

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

RAP JULY 27. **Lady Bird Johnson Tribute Day.** Special exhibits. Lady Bird Johnson Wildflower Center. Austin, Texas. (512) 232-0100. www.wildflower.org.

RAP AUG. 2. **Daylily Association Sale.** Missouri Botanical Garden. St. Louis, Missouri. (314) 577-5100. www.mobot.org.

RAP AUG. 2. **Make a Garden Bench.** Workshop with master furniture builder Bim Willow. Overland Park Arboretum and Botanical Gardens. Overland Park, Kansas. (913) 685-3604. www.opkansas.org.

RAP AUG. 10. **Junior Gardeners.** Youth workshop. Botanica, The Wichita Gardens. Wichita, Kansas. (316) 264-0448.
www.botanica.org.

AUG. 11–17. **Nursery Landscape Expo.** Texas Nursery & Landscape Association. George R. Brown Convention Center. Houston, Texas. (800) 880-0343.
www.nurserylandscapeexpo.org.

RAP AUG. 14. **Seeds for Change.** Seed-saving workshop. Garvan Woodland Gardens. University of Arkansas. Hot Springs, Arkansas. (501) 262-9300. www.garvangardens.org.

Looking ahead

RAP SEPT. 5–7. **Flora Kansas.** Native plant sale. Dyck Arboretum of the Plains. Hesston, Kansas. (620) 327-8127.
www.dyckarboretum.org.

SEPT. 28 & 29. **Garden Faire & Fall Festival.** Mercer Arboretum and Botanic Gardens. Humble, Texas. (281) 443-8731.
www.hcp4.net/mercer.

SOUTHWEST

AZ, CO, NM, UT

RAP AUG. 3. **Raised Bed Gardening.** Class.

LEGO® Exhibit Tours Nation's Public Gardens

NEW YORK CITY artist Sean Kenney's latest exhibit, "Nature Connects," showcases more than 50 sculptures of flowers, animals, and even life-sized gardeners meticulously built from an astonishing one million LEGO toy bricks. The exhibit will



This gigantic praying mantis at the Missouri Botanical Garden is one of Sean Kenney's LEGO sculptures.

tour 14 public gardens across the nation through 2016 and is currently on display at the Cleveland Botanical Gardens in Cleveland, Ohio, until August 24, and at the Missouri Botanical Garden in St. Louis until September.

The "Nature Connects" sculptures illustrate "the relationship between elements of nature, like a fox hunting a rabbit, or a lotus, koi, frog, and water platter sharing space in a pond," says Kenney. "Others showcase the beauty of nature, like a seven-foot-tall rose and a five-foot-wide butterfly." There's also a life-sized lawn mower that at first sight "visitors often mistake for the real thing," Kenney says.

The Missouri Botanical Garden artistically integrated its summer LEGO exhibit into its Climatron, a climate-controlled greenhouse in a geodesic dome housing around 1,400 tropical species. The reception of the exhibit by visitors at the Missouri Botanical Garden has been overwhelmingly positive, says Chelsea Harris, who is part of the Garden's event staff. "They're surprised by the sculptures, how intricate the details are," she says. "Kids are brimming with excitement when they see them." And those inspired by the sculptures can build their own at a LEGO station in the Brookings Interpretive Center.

An advocate of creative expression, Kenney says that seeing his sculptures in botanical gardens completes his vision for them. "Much like LEGO pieces connect," he says, "everything in nature is connected in an intricate balance." To see a list of public gardens the exhibit will visit, go to www.seankenny.com/portfolio/nature_connects.

Gardening Symposium in North Carolina

ROCK GARDENS, perennial landscape design, sustainable practices, unusual magnolias, and eclectic plant hunting in northern Vietnam comprise the topics of the renowned horticulturists who will present at the Speaking of Gardening symposium at the North Carolina Arboretum in Asheville, North Carolina, on August 22 and 23.

Presenters will be: Panayoti Kelaidis, senior curator and director of outreach at the Denver Botanic Gardens in Colorado; David Culp, author of *The Layered Garden*; Greg Paige, curator of the 350-acre Bartlett Arboretum in Charlotte, North Carolina; Andrew Bunting, curator at the Scott Arboretum of Swarthmore College in Pennsylvania and president of the Magnolia Society International; and Scott McMahan, owner of two nurseries in Georgia.

The annual symposium is coordinated by Asheville GreenWorks, a North Carolina conservation organization providing educational and volunteer-based environmental stewardship programs. "We hope that our symposium will serve to both educate and excite individuals about cutting edge garden design as well as practical garden applications," says Sabra Kelley, a symposium committee member at Asheville GreenWorks. For more information and to register, visit www.ashevillegreenworks.org.

—Sarah Miller, Editorial Intern

Webinar Series on Sustainable Landscape Practices

THE LADY BIRD JOHNSON Wildflower Center in Austin, Texas, and the United States Botanic Garden in Washington, D.C., will coordinate a series of webinars for those interested in teaching others how to create sustainable landscapes. From October 21 to November 18, the “Landscape for Life: Train the Trainers” webinars will occur every Tuesday afternoon and will also serve as an open forum for participants.

Featured topics include healthy soils, effective water management, selection of appropriate plants to create habitat, use of recycled materials, and integrated pest management. Sustainable practices for a variety of gardens—from large, rural lots to small apartments—will be covered.

The webinars are a part of the Sustainable Sites Initiative, an interdisciplinary program developed as a collaboration between the American Society of Landscape Architects, the U.S. Botanic Garden, and the Lady Bird Johnson Wildflower Center to establish guidelines and benchmarks for sustainable landscape design.

The application deadline is October 1, and prospective participants must be able to attend in all five webinars to register. For more information, visit www.landscapeforlife.org.

—Sarah Miller, Editorial Intern



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

AUG. 15. Southwestern Horticulture Annual Day of Education. Arizona Nursery Association. The Renaissance Glendale. Glendale, Arizona. (480) 966-1610. www.azna.org.

AUG. 16. It's a Bee's Life. Bee appreciation event. Tagawa Gardens. Centennial, Colorado. (303) 690-4722. www.tagawagardens.com.

RAP **AUG. 18–22. Plants Around the World.** Children's class. Red Butte Garden and Arboretum at the University of Utah. Salt Lake City, Utah. (801) 585-0556. www.redbuttegarden.org.

THROUGH AUG. 31. Alien Invasions of the Plant Kind. Invasive weeds exhibit. Tucson Botanical Gardens. Tucson, Arizona (520) 326-9686. www.tucsonbotanical.org.

Looking ahead

RAP **SEPT. 6. Plant Swap.** Bring something green to trade. Santa Fe Botanical Garden. Santa Fe, New Mexico. (505) 471-9103. www.santafebotanicalgarden.org.

WEST COAST

CA, HI, NV

RAP **AUG. 2. History of Botanical Illustration.** Lecture. Fullerton Arboretum. Fullerton, California. (657) 278-3407. www.fullertonarboretum.org.

RAP **AUG. 2. Irrigation Troubleshooting.** Workshop. Descanso Gardens. La Cañada Flintridge, California. (818) 949-7980. www.descansogardens.org.

AUG. 29–SEPT. 1. Begonia Festival. American Begonia Society. Capitola, California. (831) 475-6522. www.begoniafestival.com.

AUG. 30. Succulent Plants Symposium.

Brody Botanical Center at the Huntington. San Marino, California. (626) 405-2100. www.huntington.org.

Looking ahead

RAP **SEPT. 6. Sick Plant Clinic.** Workshop. University of California Botanical Garden at Berkeley. Berkeley, California. (510) 643-2755. www.botanicalgarden.berkeley.edu.

RAP **SEPT. 13. Native Plants and Succulents.** Plant show and sale. San Francisco Botanical Garden at Strybing Arboretum. San Francisco, California. (415) 661-1316. www.sfbotanicalgarden.org.

SEPT. 13 & 14. Regional Landscape Design in Central California. Seminar. California Polytechnic State University. San Luis Obispo, California. (510) 849-1627. www.pacifichorticulture.org.

NORTHWEST

AK, ID, MT, OR, WA, WY

RAP **JULY 28–AUG. 1. Fascinating Features Botany Camp.** Children's program. Idaho Botanical Garden. Boise, Idaho. (208) 343-8649. www.idahobotanicalgarden.org.

RAP **AUG. 7. Gardening & Grub.** Children's class. Cheyenne Botanic Gardens. Cheyenne, Wyoming. (307) 637-6458. www.botanic.org.

RAP **AUG. 9. Botanical Creations—Printmaking with Plants.** Workshop. Kruckeberg Botanic Garden. Shoreline, Washington. (206) 546-1281. www.kruckeberg.org.

RAP **AUG. 12. Great Plant Picks.** Workshop. Bellevue Botanical Garden. Bellevue, Washington. (425) 451-3755. www.bellevuebotanical.org.

RAP **AUG. 20. Drawing Nature into Urban Landscape Design.** Seminar. Ambridge

Event Center. Portland, Oregon. (510) 849-1627. www.pacifichorticulture.org.

RAP **AUG. 20. The Garden: the Art of Agriculture.** Lecture. Leach Botanical Garden. Portland, Oregon. (503) 823-9503. www.leachgarden.org.

AUG. 21–23. Farwest Trade Show. Oregon Association of Nurseries. Oregon Convention Center. Portland, Oregon. (800) 342-6401. www.farwestshow.com.

Looking ahead

SEPT. 6 & 7. Dahlia Show. Portland Dahlia Society. Clackamas County Fairgrounds. Canby, Oregon. (503) 655-6951. www.portlanddahlia.com.

SEPT. 12. Fall Plant Sale. Northwest Horticultural Society. University of Washington Botanic Gardens. Seattle, Washington. (206) 780-8172. www.northwesthort.org.

CANADA

RAP **AUG. 10. Ontario Iris Society Plant Sale.** Toronto Botanical Garden. Toronto, Ontario, Canada. (416) 397-1341. www.torontobotanicalgarden.ca.

AUG. 23. Vancouver Dahlia Society Show. VanDusen Botanical Garden. Vancouver, British Columbia. (604) 591-3262. www.vandusengarden.org.

RAP **AUG. 24. Queen of Hearts Garden Pyramid Opening.** Muttart Conservatory. Edmonton, Alberta, Canada. (780) 496-8737. www.muttartconservatory.ca.

Looking ahead

SEPT. 23. Ontario Tree Climbing Championship. International Society of Arboriculture. Pinafore Park, St. Thomas, Ontario, Canada. (519) 854-3273. www.itcc-isa.

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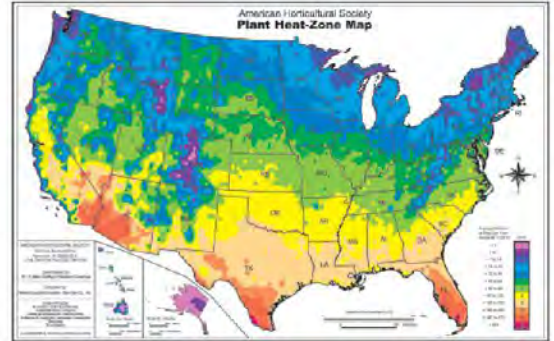
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PRONUNCIATIONS AND PLANTING ZONES

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



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

Agastache foeniculum ah-guh-STAH-she fee-NICK-yoo-lum (USDA Hardiness Zones 4–11, AHS Heat Zones 12–5)
Aloysia triphylla uh-LOY-zee-uh try-FIL-luh (8–11, 12–8)
Beta vulgaris BEH-tuh vul-GAIR-iss (0–0, 12–1)
Camellia sinensis kuh-MEEL-yuh sih-NEN-siss (8–10, 10–7)
Chamaemelum nobile kam-may-ME-lum NO-bil-ee (6–9, 9–6)
Clematis addisonii KLEM-uh-tiss ad-ih-SOWN-ee-eye (5–8, 8–3)
C. columbiana C. kol-um-bee-AN-uh (4–7, 7–3)
C. crispa C. KRIS-puh (5–9, 9–5)
C. fremontii C. free-MON-tee-eye (4–7, 7–4)
C. hirsutissima C. her-soo-TISS-ih-muh (4–7, 7–3)
C. hirsutissima var. scottii C. her-soo-TISS-ih-muh var. SCOTT-ee-eye (4–7, 7–3)
C. lasiantha C. lah-see-AN-thuh (5–8, 8–5)
C. ligusticifolia C. lih-gus-tih-sih-FO-lee-uh (5–9, 9–4)
C. occidentalis C. ahk-sih-den-TAL-iss (3–8, 8–3)
C. occidentalis var. dissecta C. ahk-sih-den-TAL-iss var. dih-SEK-tuh (5–7, 7–4)
C. occidentalis var. grosseserrata C. ahk-sih-den-TAL-iss var. grow-suh-seh-RAY-tuh (3–6, 6–2)
C. pitcheri C. PITCH-ur-eye (4–9, 9–4)
C. tangutica C. tan-GYEW-tih-kuh (5–11, 9–6)
C. terniflora C. tur-nih-FLOR-uh (5–11, 9–1)
C. texensis C. teks-SEN-sis (5–9, 9–1)
C. versicolor C. vur-SIK-uh-lur (5–8, 8–4)

C. viorna C. vy-OR-nuh (4–9, 9–1)
C. virginiana C. vir-jin-ee-AN-uh (3–9, 9–1)
C. viticella C. vih-tih-SEL-luh (4–10, 10–5)
Glycyrrhiza glabra gly-sir-RY-zuh GLAB-ruh (8–10, 10–3)
Matricaria recutita mat-rih-KAIR-ee-uh reh-kew-TEE-tuh (0–0, 8–1)
Mentha x piperita var. citrata MEN-thuh pih-pur-EE-tuh var. sih-TRAY-tuh (5–11, 11–1)
Monarda didyma moh-NAR-duh DID-ih-muh (3–9, 9–1)
Salvia azurea SAL-vee-uh as-YEW-ree-uh (5–9, 10–1)
S. azurea var. grandiflora S. as-YEW-ree-uh var. gran-dih-FLOR-uh (5–9, 9–4)
S. coccinea S. kok-SIN-ee-uh (8–11, 11–5)
S. elegans S. EL-ih-ganz (8–11, 12–1)
S. farinacea S. fahr-ih-NAY-see-uh (8–11, 12–1)
S. greggii S. GREG-ee-eye (7–10, 11–4)
S. guaranitica S. gwar-uh-NIH-tih-kuh (7–10, 11–6)
S. leucantha S. loo-KAN-thuh (10–11, 12–5)
S. lycioides S. ly-see-OY-deez (6–9, 9–5)
S. mexicana S. mex-ih-KAN-uh (8–10, 10–5)
S. microphylla S. my-kro-FIL-luh (8–10, 12–5)
S. officinalis S. o-fiss-ih-NAL-iss (5–8, 8–5)
S. reptans S. REP-tanz (8–10, 10–6)
S. splendens S. SPLEN-denz (11–12, 12–1)

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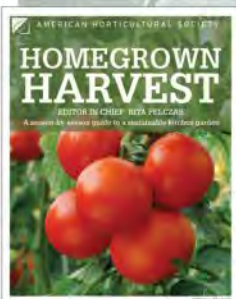
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Firecracker Vine Offers an Explosion of Color in Late Summer

by Thomas Mickey

VINES SUPPLY an important vertical dimension in the landscape. They can soften the lines of a house, garage, or wall, serve a screening function on a trellis, or create a memorable display on a freestanding structure like a pergola or arbor. No garden should be without them.

One that I like for its late-summer blooms is an old-fashioned vine called firecracker vine or Spanish flag (*Ipomoea lobata*, USDA Hardiness Zones II–II, AHS Heat Zones II–I). This tender perennial native to Mexico and Central America is grown as an annual in most American gardens. A member of the morning glory family, it is sometimes still listed under its former name, *Mina lobata*.

The plant first appeared in cultivation in the London garden of the Royal Horticultural Society in 1841. Around the end of the 19th century, after the English had enjoyed the vine for decades, American seed catalogs began to carry it as well; at that time it was listed under the name *Quamoclit lobata*.



As the flowers of firecracker vine mature, they change from red to yellow then white.

STRIKING DISPLAY

The vine grows from eight to 12 feet tall in a growing season. It bears dark green, five-inch leaves that have three primary lobes like those of a sweet potato plant. But the plant's slightly arching spikes of tubular flowers are its most striking feature. Each spike contains 12 to 15 flowers all aligned in the same direction on the stalk. The flowers open a rusty red color before changing to orange, then yellow, and finally maturing

to white. With flower spikes in different stages of development, all these colors appear on the plant at the same time, creating a festive effect. They also attract hummingbirds.

FULL SUN REQUIRED

Firecracker vine grows best in moist, well-drained soil in a site that receives full sun. Without full sun you will get a vigorous vine but diminished flower display. Provide a trellis or fence for support. Although it is an annual, it will self-seed moderately given the right conditions. At Burpee's Fordhook Farm in Doylestown, Pennsylvania, several firecracker vines adorn trellises that mark the end of long rows of plants. There are more than 10 trellises in the garden, and in late summer each of them is covered with hundreds of the tubular flowers. These vines grow back reliably from seed each year.

You may find local nurseries offering firecracker vine as potted plants in spring, but it is easy to grow from

seed (see "Sources"). Soak the seeds in tepid water overnight before sowing. Keeping the planting medium at 70 degrees Fahrenheit with a heat mat will accelerate germination.

If you are searching for a vine that offers a vibrant floral display in late summer to early autumn, firecracker vine is an excellent choice.

Thomas Mickey is a Master Gardener and author who lives in New England. His latest book is America's Romance with the English Garden (Ohio University Press, 2013), and he blogs at americangardening.net.

Sources

Renee's Garden Seeds, Felton, CA. (831) 335-7228.

www.reneesgarden.com.

Select Seeds, Union, CT. (800) 684-0395. www.selectseeds.com.

Thompson & Morgan, Aurora, IN. (800) 274-7333. www.tmseeds.com.

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