The American GARDENER®

The Magazine of the American Horticultural Society

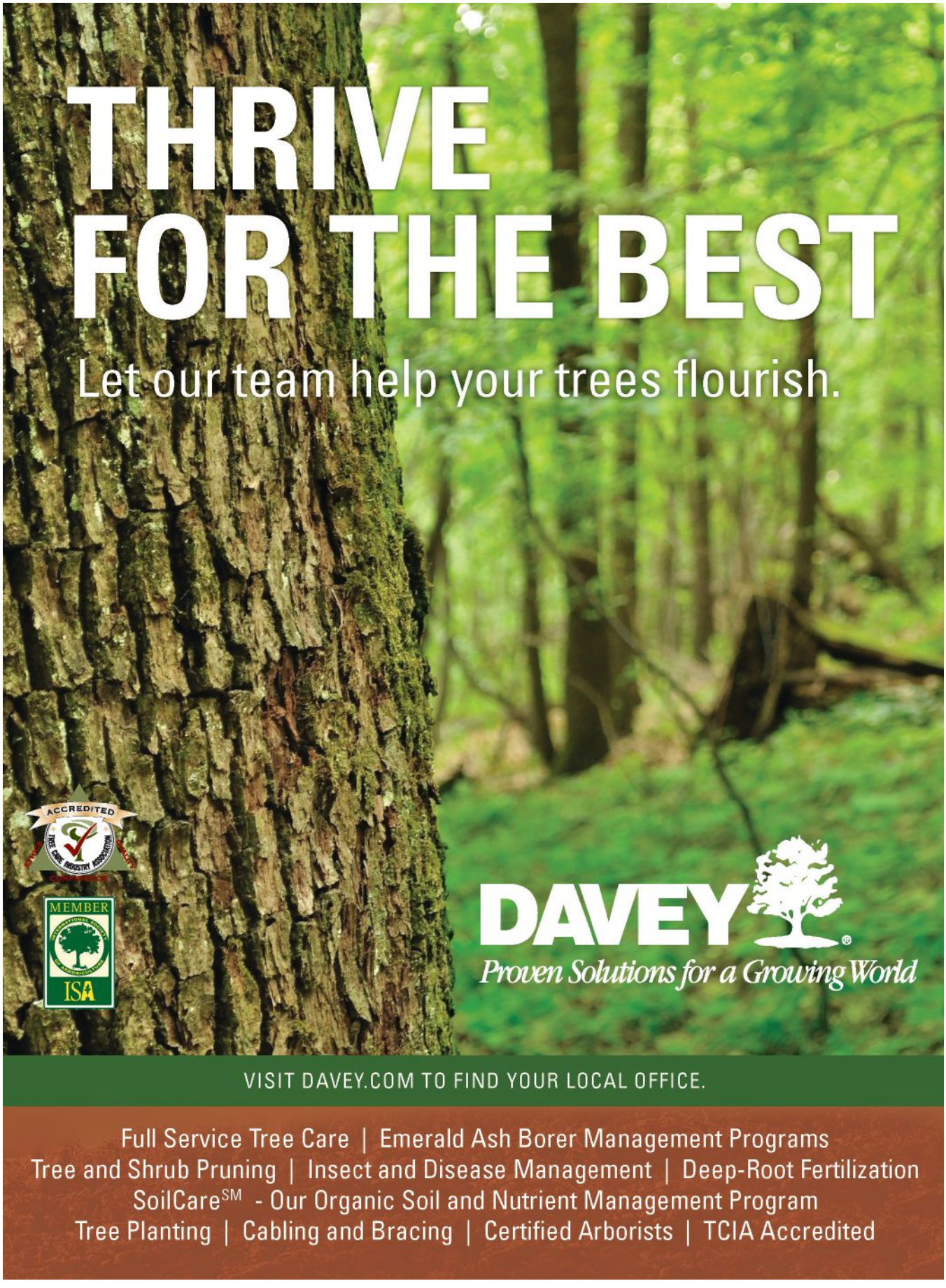
September / October 2020

Carefree Native Self-Sowers

North American Vines

Moss Garden Masterpiece

Urban Food Forests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contents

Volume 99, Number 5 · September / October 2020

FEATURES


page 24

ON THE COVER: California poppy *(Eschscholzia californica)* spreads easily by self-seeding and thrives in many regions of the country, as in this Connecticut garden designed by Spring Lake Garden Design. Photograph by Karen Bussolini

COURTESY OF JODI LANE

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To share with all Americans the critical role of plants, gardens, and green spaces in creating healthy, livable communities and a sustainable planet

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NOTES FROM RIVER FARM

IT'S HARD to believe summer is over, but as I write this, the calendar is about to turn over to September, and before long our gardens will begin to reflect the seasonal changes that come with shorter days and cooler temperatures.

The good news for those of us whose outdoor garden time has been curtailed by high temperatures or biting insects is that fall is a near perfect time to get reacquainted with our own gardens and to visit public gardens. While it's impossible to escape the effects of the pandemic on our daily lives, I do know from conversations I've had with colleagues and friends that gardening and being able to spend more time outdoors has been a great benefit to many during this difficult period. Many public gardens have reopened with safety precautions in place, so be sure to take advantage of our Reciprocal Admissions Program if you visit gardens in your area or while traveling.

At our River Farm headquarters in Alexandria, Virginia, we continue to keep the grounds open to visitors from 9 a.m. to 5 p.m. on weekdays. We have resumed some outdoor educational programming, while of course following COVID-19 health guidelines and respecting the safety of staff, volunteers, and members. For information on our program offerings, please visit our website *(www.ahsgardening.org)*.

As many of you are aware, our usual fall fundraising Gala has been replaced by a virtual Garden Party on Sunday, November 8. We're excited to have noted interior designer James Farmer as honorary chair and Alexandria native Monte Durham as the event host. I hope you will join us online for this special live event; you can find more details about it on page 9 and on our website.

As usual, this issue of the magazine offers a mix of inspirational, informational, and practical gardening articles for your enjoyment. For plant lovers, articles on native vines and native plants that self-sow will offer lots of choices for different regions of the country. Author Lorraine Boissoneault offers insight into urban food forests, which are one of the newest trends in many American cities. The foodies out there will appreciate a piece, excerpted from landscape designer Nicole Johnsey Burke's new book, offering advice on how to select a location for a kitchen garden. And from Wisconsin, author Mark Dwyer brings us the story of Dale Sievert, whose fascination with moss is reflected in the amazing garden he has created.

I hope these articles will enrich your gardening knowledge and experience as we transition into autumn. For those of us in temperate regions, the gardening season may be winding down, but there are still many tasks to accomplish before the onset of winter.

With thanks for all your friendship and support.

Bob Brackman
Interim Executive Director

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Botanical nomenclature is based on *The American Horticultural Society A–Z Encyclopedia of Garden Plants*, the Plant List *(www.theplantlist.org)*, and the USDA Plants Database *(plants.usda.gov)*. Opinions expressed in the articles are those of the authors and are not necessarily those of the Society. Back issues are available at $8 per copy.

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MEMBERS' FORUM

DELIGHTFUL GARDEN CREVICES

I enjoyed the article "The Scented Path" in the July/August issue, which included discussion of planting between bricks and flagstones. In my little urban backyard garden, [shown in the photo above] volunteer sweet alyssum, cleome, calendula, dill, and chives grow every year in the cracks of the concrete patio, creating unexpected pleasures.

Ann Herren
Skokie, IL

MORE ON NATIVE PLANTS

Editor's note: *Bridget Gallagher's letter in the July/August issue* ("A Surfeit of Natives") *received dissenting responses from several members.*

Thank you for publishing the letter by Bridget Gallagher, who wished there was less information about native plants and more encouragement to plant anything that blooms. Her letter highlights the need for better information about why native plants benefit insects and the food chain more than glorious non-natives.

I, too, love peonies and muscari, but I plant only natives now. Yes, birds and insects will sup from non-natives, but many insects require certain native plants to reproduce and survive. Insects as a whole can no more survive on only the "pretties" than we can survive on ice cream.

No one needs to rip out every non-native plant, but we must provide a diet heavily weighted towards the natives to protect insect diversity for all our sakes.

Sharon Burnham
Roanoke, VA

Ms. Gallagher's letter reveals a frightening lack of knowledge. Birds and bees may indeed use non-native species in the garden, but only to a very limited extent.

In 2018, the Smithsonian released findings from its study of Carolina chickadees that showed the bird's reproduction success hinges on yards having 70 percent or more native species. So yes, a bird may use a non-native species, but native plants host, feed, and attract the large number of native insects that birds require for healthy young. A Carolina chickadee, for instance, feeds its young hundreds of caterpillars every day! Petunias just don't support their food supply.

I suggest Ms. Gallagher read the books of ecologist Doug Tallamy to learn how sterile suburban yards have helped reduce insect populations by 45 percent in 40 years. While no one should promote native plant snobbery, it is imperative that gardeners in America take note of the damage we have done to wildlife.

Wendy Rihner
New Orleans, LA

Ms. Gallagher argues that birds and insects do not know the difference between native and non-native plants, so gardeners should "grow anything…that has pollinator-friendly flowers. This will encourage a more abundant population of birds and insects." I beg to differ. A recent two-year study by researchers at Virginia Tech on the effects of invasive plants on indigenous wildlife *(www.wvtf.org/post/pretty-poison-vt-study-first-confirm-invasive-plants-threaten-native-wildlife#stream/0)* concludes that non-native invasives deprive native wildlife of their natural food sources, thus threatening their survival.

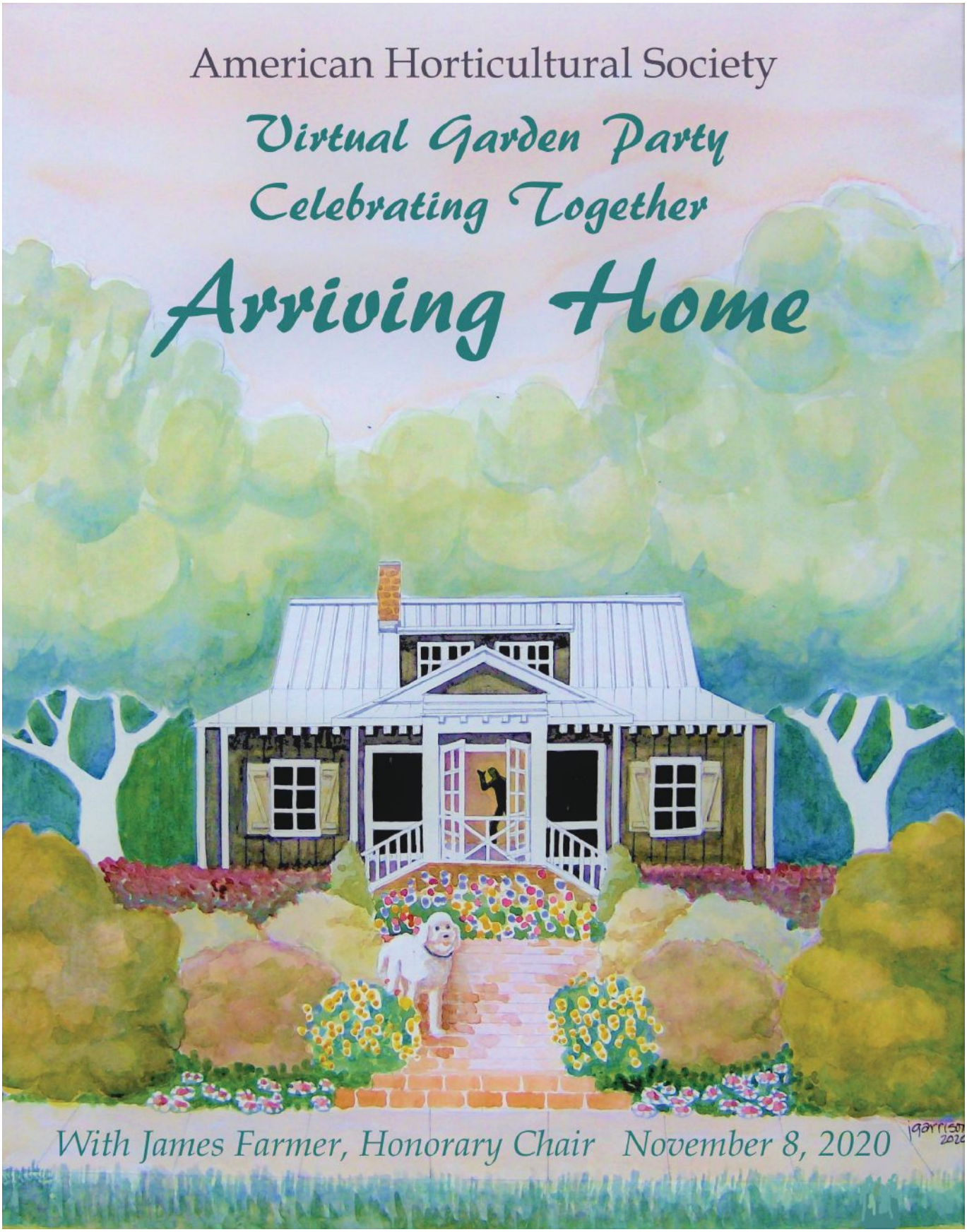
Granted, only a tiny percentage of non-native plants become invasive—but, as noted in the study, the detrimental effect this population has on the ecosystem is enormous. My own garden is not entirely of native plants, but I'll be replacing my butterfly bush *(Buddleia davidii)*—planted decades ago—with the native sweet pepperbush *(Clethra alnifolia)*. The butterfly bush certainly attracts plenty of butterflies, but it does not provide them adequate nutrition.

In his book, *Nature's Best Hope*, Doug Tallamy argues that "wildlife populations are in decline because the native plants they depend on are fast disappearing." Please, plant more natives!

Lee Ann Graul
Bel Air, MD

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

COURTESY OF ANN HERREN



For more information, visit www.ahsgardening.org/gardenparty

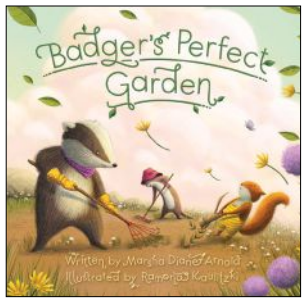
News from the AHS

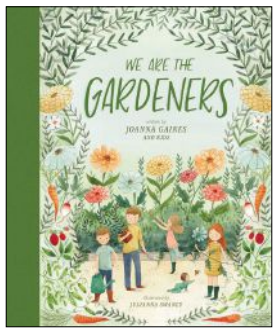
September / October 2020

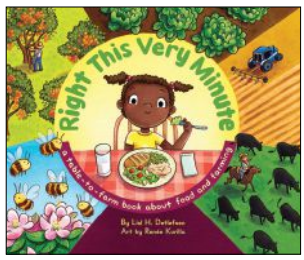
PROGRAMS • EVENTS • ANNOUNCEMENTS

GROWING GOOD KIDS BOOK AWARDS

EACH YEAR, the American Horticultural Society, in partnership with the Junior Master Gardener program, honors engaging, inspiring work of plant, garden and ecology-themed children's literature. This year, the recipients of the 2020 Growing Good Kids–Excellence in Children's Literature Award were announced during the AHS's virtual National Children & Youth Garden Symposium in July. The four recipients of the 2020 award are:







Badger's Perfect Garden by Marcia Diane Arnold. Illustrated by Ramona Kaulitzki. Sleeping Bear Press.
The Thing About Bees: A Love Letter written and illustrated by Shabazz Larkin. Reader to Eaters.
We Are the Gardeners by Joanna Gaines. Illustrated by Julianna Swaney. Thomas Nelson.
Right This Very Minute by Lisl H. Detlefsen. Illustrated by Renee Kurilla. Feeding Minds Press.

If you've been looking for ways to share the joy of gardening and the natural world with the children in your life, consider gifting one or more of these books. Many other wonderful book choices can be found by browsing previous winners of the award. A percentage of your purchase made through Amazon Smile can be donated back to AHS. To view a video of the award announcement, visit *https://jmgkids.us/bookawards*.

SUPPORT AHS WHILE PURCHASING FLOWERS

WE ARE excited to announce FabulousFlorals.com has agreed to donate 5% of their sales (up to $5,000) back to the American Horticultural Society now through August 31, 2021. **Fabulous Florals** is committed to providing the finest fresh-cut wholesale flowers by the bunch, in assortments, in wedding flower packages, and by individual varieties. It even offers a variety of DIY packages to customize special occasions. Your order can be shipped in single bunches and bulk flowers to anywhere in the United States and Canada, for large events or smaller, intimate gatherings.

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CONTACTS FOR AHS PROGRAMS, MEMBERSHIP BENEFITS & DEPARTMENTS

AMERICAN HORTICULTURAL SOCIETY

For general information about your membership, call (703) 768-5700. Send change of address notifications to our membership department at 7931 East Boulevard Drive, Alexandria, VA 22308. If your magazine is lost or damaged in the mail, call the number above for a replacement. Requests for membership information and change of address notification can also be e-mailed to membership@ahsgardening.org.

THE AMERICAN GARDENER To submit a letter to the editor of *The American Gardener*, write to The American Gardener, 7931 East Boulevard Drive, Alexandria, VA 22308, or send an e-mail to editor@ahsgardening.org.

DEVELOPMENT To make a gift to the American Horticultural Society, or for information about a donation you have already made, call (703) 768-5700 ext. 127, or send an e-mail to development@ahsgardening.org.

E-MAIL LISTS To subscribe to specific e-mail lists for updates on programs and events, visit *http://connect.ahsgardening.org/email*.

INTERNSHIP PROGRAM The AHS offers internships in communications and horticulture. For information, send an e-mail to internships@ahsgardening.org. More information and application forms can also be found in the Programs area of *www.ahsgardening.org*.

NATIONAL CHILDREN & YOUTH GARDEN SYMPOSIUM For information about the Society's annual National Children & Youth Garden Symposium, e-mail education@ahsgardening.org, or visit *www.ahsgardening.org/ncygs*.

RECIPROCAL ADMISSIONS PROGRAM The AHS Reciprocal Admissions Program offers members free admission and other discounts to over 340 botanical gardens and other horticultural destinations throughout North America. A list of participating gardens can be found on *www.ahsgardening.org/rap*. For more information, call (703) 768-5700 ext. 119.

RIVER FARM The AHS headquarters at River Farm is currently open Monday to Friday from 9 a.m. to 5 p.m. Please visit our website for updates due to the COVID-19 pandemic. For information about events, rentals, and directions, visit the River Farm section of *www.ahsgardening.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. 127, e-mail development@ahsgardening.org, or visit *www.ahsgardening.org/travel*.

WEBSITE: www.ahsgardening.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 members-only sections.

BULB PURCHASES FROM BRENT AND BECKY'S SUPPORT AHS

PLANTING BULBS in autumn is a great way to ensure your spring garden sparkles with color. Through **Brent and Becky's Bulbs Bloomin' Bucks** program, you can enhance your garden while at the same time supporting the AHS's outreach programs.

A family-owned mail-order bulb supplier based in Gloucester, Virginia, Brent and Becky's Bulbs created Bloomin' Bucks, a progressive fundraising program that allows the company's customers to support nonprofits of their choice through a percentage of their purchases. When checking out, just mention that you would like your order to benefit the AHS, and 25% of the total amount you spend will go to the AHS. To learn more about Bloomin' Bucks, and view Brent and Becky's catalog, visit *www.brentandbeckysbulbs.com/site/view/836*.

ONLINE AUCTION: DETAILS TO COME

EACH YEAR we curate a collection of special items, events, and travel opportunities for bidding in our silent and online auctions, with proceeds benefiting the American Horticultural Society's national outreach programs. Past auctions have featured exclusive tour packages to renowned botanical gardens, one-of-a-kind jewelry, tickets for major sporting events, and more. This year's online auction offerings will be just as sure to inspire your interest. More information will be available soon at *www.ahsgardening.org/gardenparty*.

THIS YEAR'S AHS GALA has been reinvented as a virtual "garden party" to be held Sunday, November 8, 2020. Join us to celebrate coming together at home.

The honorary guest for this special event is interior designer, gardener, and best-selling author **James Farmer**, who will take us on a live tour of his beautiful south Georgia home and garden while sharing his favorite tips for seasonal entertaining, table design, and fall gardening—all served up with his signature Southern charm and style. **Monte Durham**—the witty host of TLC's *Say Yes to the Dress: Atlanta*—will host the festivities live from the AHS's River Farm headquarters in Alexandria, Virginia. A **mystery celebrity guest** from "across the pond" with a royal connection will also make an appearance.

Guests will have special access to recipes, learn flower arranging tips, participate in an **online auction**, and receive a signed copy of Farmer's newest book, *Arriving Home*. All proceeds from the event will benefit the AHS's national outreach programs. For information about tickets, sponsorship opportunities and the online auction, visit *www.ahsgardening.org/gardenparty* or contact Vice President of Development Susan Klejst at sklejst@ahsgardening.org.

AHS NATIONAL AND LOCAL EVENTS CALENDAR

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

Because guidelines for holding events are subject to change, please check our website for the most up-to-date information.

NOV. 8 **Garden Party Fundraiser.** Virtual format. River Farm, Alexandria, VA.
DEC. 7–24 **Indoor Holiday Display.** River Farm, Alexandria, VA.

2021

MAR. 7–16 **The Enchanting Gardens and Allure of Morocco.** AHS Travel Study Program. *https://ahsgardening.org/gardening-programs/travel-study/the-enchanting-gardens-and-allure-of-morocco*
APR. 13–24 **Discovering the Beauty of Bhutan.** AHS Travel Study Program. *https://ahsgardening.org/gardening-programs/travel-study/discovering-the-beauty-of-bhutan-land-of-the-thunder-dragon.*
MAY 3–12 **Gardens of Provence.** AHS Travel Study Program. *https://ahsgardening.org/gardening-programs/travel-study/gardens-of-provence..*
JUNE 12–20 **Treasures of Japan.** AHS Travel Study Program. *https://ahsgardening.org/gardening-programs/travel-study/treasures-of-japan.*

Access Member Benefits Online!

Did you know you can easily search back issues of *The American Gardener* through our website and even gain early access to the most current issue before your copy arrives in the mail? You'll also find discount codes with AHS partner companies, links to discounted events, and more as new benefits pop up! Here are a few things to do to help access your member benefits online.

1. Create a username and password. This can be done from any page on our website *(www.ahsgardening.org)* by clicking on the Member Login in the top right corner and following the instructions.

2. If you have already done this and still aren't able to access benefits, e-mail us at membership@ahsgardening.org and we'll troubleshoot the problem with you.

3. Make sure @ahsgardening.org is marked as a **safe sender** within your e-mail provider to make ensure you are receiving timely communication from us or if you ever need to reset your password. If you still aren't getting our e-mails, please let us know and we can look into it further for you.

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 June 30, 2019 and August 26, 2020.

$1,000+ Gifts

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Dr. Erich E. Veitenheimer and Mr. Andrew Cariaso
Mr. Charles Walton

In honor of Gloria Kersaw
Mrs. Louise M. Shoksnyder

In memory of J. Landon Reeve, IV
Mr. and Mrs. Stephen and Susan Klejst
Dr. Erich E. Veitenheimer and Mr. Andrew Cariaso

If you would like to support the AHS, please call Susan Klejst, Vice President of Development, at (703) 768-5700 ext. 127.

MAGAZINE ARTICLE WINS GOLD AWARD

AN ARTICLE by **Claire Jones**, published in last year's September/October issue of this magazine, has received a 2020 Gold Medal Award in the magazine writing category from GardenComm, a professional organization for garden communicators. The article, titled "Seasonal Porch Pots," offered suggestions for how to create long-lasting arrangements of seasonal foliage and berries in containers. To view a list of other award winners, visit *https://gardencomm.org/Post/Announcing-the-2020-GardenComm-Silver-Award-Winners.*

News written by AHS Staff.

AHS NEWS SPECIAL: 28th Annual Children & Youth Garden Symposium

A Virtual Success

by Katherine Somerville

FOR THE first time in its 28-year history, the American Horticultural Society's National Children & Youth Garden Symposium (NCYGS) took place virtually July 8 to 10 as a collection of live and pre-recorded webinars. A professional development event held annually in a different city each year, NCYGS brings together garden educators, administrators, designers, and others who work with youth in garden spaces.

Traditionally, NCYGS attendees gather to learn from and share with each other and tour exemplary gardens in and around a host city. Due to the ongoing pandemic, this year's event, which was originally scheduled to take place in Santa Cruz, California, was transformed into a virtual symposium. The silver lining of this shift is the ability to deliver a more sustainable and affordable professional development event for many more educators. Over 350 people from as far away as Australia registered to view or participate in the sessions. "I missed not being able to see and talk informally with physical bodies," admits one participant, "but in terms of content I got as much, if not more, out of the sessions."

Highlights of the event included a presentation by **Nina Simon**, Space Maker and CEO of the non-profit organization Of/By/For All, who addressed relevance and public value by sharing inspiring stories and practical tools to help organizations navigate the current unprecedented crisis in partnership with communities and emerge stronger. Simon also challenged viewers to think about who their organizations (gardens, schools, etc.) have traditionally served and how to become more inclusive and meaningful to new audiences.

Santa Cruz-based Life Lab is a national leader in the garden-based learning movement that has provided thousands of educators with the inspiration and information necessary to engage young people in gardens and on farms. During the symposium, **Whitney Cohen**, Life Lab's education director, revealed the "secret sauce"—the key, replicable elements—that make Life Lab's programs successful. Cohen also spoke on the potential of outdoor learning spaces during the current COVID-19 crisis and the importance of sharing with and learning from peers. "People might assume those of us working to support school gardens are in competition for limited resources," says Cohen. "In truth, the more we share resources, the more resilient and sustainable our organizations, and our broader, national school garden movement, become."

Some career paths within the horticulture industry lead to familiar jobs as growers and landscape designers. But, as viewers of a Ball Horticultural-sponsored panel discussion discovered, there are numerous entry points into the plant world. **Susan E. Yoder**, executive director of Seed Your Future, assembled and moderated a panel that included, among others, **Brad Austin**, a floral designer for television and movies; **Aurelie de Rus Jacquet**, an ethnopharmacologist studying the effects of traditional medicine in combating Parkinson's disease; **Abra Lee**, a horticulturist and founder of a garden clothing brand; and **Colby Borchetta**, an engineer using drones to study trees. "The careers in hort panel was great," notes a symposium attendee. "My experience spurred a new approach to providing workforce development experience on our grounds."

NATIONAL CHILDREN & YOUTH GARDEN SYMPOSIUM

Left to right: Featured speakers Nina Simon and Whitney Cohen and panelist Abra Lee.

The recordings of these general and breakout sessions (on topics ranging from vermicomposting and regenerative gardening to universal design) will be available until June 30, 2021. To register for access to these professional development materials, visit *https://ahsgardening.org/gardening-programs/youth-gardening/ncygs/ncygs-2020/registration.*

Katherine Somerville is the American Horticultural Society's associate manager of programs.

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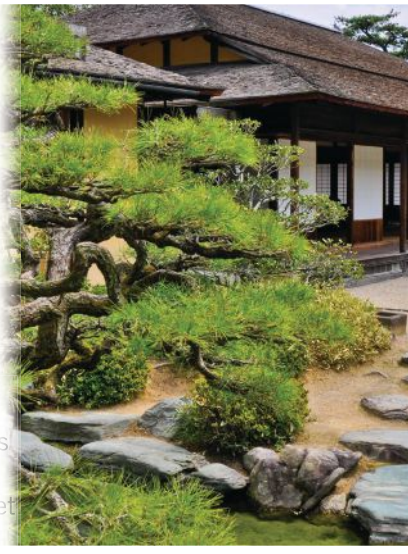

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Native Vines

These gorgeous North American vines add grace and color to the garden.

BY ANDREW BUNTING

Scrambling up an arbor, 'Gravetye Beauty' is a hybrid selection of Texas clematis with eye-catching, bright red flowers.

SUSAN A. ROTH

IN THE EARLY 1990s, when I was the plant curator at the Scott Arboretum in Swarthmore, Pennsylvania, I was approached by Longwood Gardens to create a new continuing education course on ornamental vines. While researching attractive vines suitable for gardens in the Mid-Atlantic, I encountered a number of native species that were new to me at the time. And in the intervening years I've observed more native vines growing in public gardens I've worked at or visited throughout North America. Since many gardeners are looking to add native plants to their gardens, I have put together descriptions of a few of my favorites, supplemented by recommendations from colleagues in other regions.

A few mail-order nursery sources are listed on page 16, but seed exchanges, such those of the Hardy Plant Society and American Rock Garden Society, and plant sales at botanical gardens might be your best bet for some of the species that are more difficult to find in the trade.

CLEMATIS

The large-flowered hybrid clematis typically seen in gardens are hard to resist, but a number of North American native species have a delicate beauty all their own. They have twining stems and petioles like other clematis, but their flowers tend to be smaller and in general they don't grow as tall or spread as vigorously as their exotic counterparts. Spiky seedheads add ornamental appeal in fall.

One of the first native clematis I encountered when I was at the Scott Arboretum was Texas clematis (*Clematis texensis*, USDA Hardiness Zones 5–9), also known as scarlet clematis or scarlet leatherflower. This vine, which tops out at six to 10 feet tall, belongs to the viorna group of clematis, a group of native species with characteristic small urn- or bell-shaped flowers that look like they are carved from wax. Blooming from midsummer to fall, Texas clematis's flowers can be vivid red to pinkish red, depending on the selection, with butter-yellow throats. Richard Hawke, manager of plant evaluations at the Chicago Botanic Garden in Illinois, values the flowers so much that he says, "I am willing to accept its thin habit as it twines through more substantial vines such as climbing rose or other clematis."

Coral honeysuckle has twining vines that can climb vertical structures like this lamp post.

If you are unable to track down the species, selections created by crosses with non-natives that are more readily available include 'Gravetye Beauty', which has red flowers; 'Duchess of Albany', whose pink petals are striped in deep pink ; and 'Princess Diana', which has bright pink flowers.

"I've never met a viorna group clematis I didn't like," says Kelly Norris, director of horticulture and education at the Greater Des Moines Botanical Gardens, who sings the praises of purple leatherflower or bluebill *(C. pitcheri*, Zones 5–9). Growing nine to 14 feet tall, it blooms in late spring to late summer. Its drooping blossoms are quite variable in color, ranging from silvery-purple to red. Its native range spans much of the central and southern United States down into Mexico.

The species for which the group is named, *C. viorna* (Zones 5–8), produces summer flowers that are lavender-purple with curling white tips. Commonly known as vase vine, it is a little more vigorous than Texas clematis and grows to 10 feet tall. It is native primarily in the

CATRIONA T. ERLER

Mid-Atlantic and Lower Midwest.

Like their more vigorous exotic cousins, the native clematis species grow best in a site where their roots are protected from midday sun. Provide support or allow them to climb up or scramble over small to mid-size shrubs. Moist but well drained, loamy soil with a pH near neutral is ideal. Treat them much as you would deciduous herbaceous perennials.

HONEYSUCKLE

Native from Maine to Florida, the coral or trumpet honeysuckle *(Lonicera sempervirens*, Zones 5–9) is one of the great native vines for spring flowers. It is a favorite of Gary Knox, professor of environmental horticulture and nursery crops Extension specialist at the University of Florida's North Florida Research and Education Center near Tallahassee. "It has clusters of tubular flowers from spring through summer (and sometimes into the fall) that typically are red to coral in color," says Knox, "and the flowers are important for pollinators like hummingbirds and butterflies. Flowers are followed by red fruits that are snapped up by the birds. It is vigorous yet has more restrained growth then many other vines." Coral honeysuckle is a twining vine that grows best on a fence, trellis, or other support. Flowering is best in full sun.

Several selections are worth seeking out, including 'Sulphurea', which has butter-yellow flowers; 'Major Wheeler', which bears a profusion of coral-red flowers; and 'Cedar Lane', which has flowers that are a slightly deeper red shade than 'Major Wheeler'. Jared Barnes, assistant professor of horticulture at Stephen F. Austin University in Nacogdoches, Texas, recommends 'Tangerine Princess', which is coral-orange, and a yellow-flowered cultivar called 'John Clayton'.

Another native option is *Lonicera* 'Kintzley's Ghost' (Zones 4–8), which is believed to be a hybrid of two native species, *L. reticulata* and *L. prolifera*. Panayoti Kelaidis, Senior Curator and Director of Outreach at the Denver Botanic Garden in Colorado, says it's a good choice for the arid regions of the Rocky Mountains, but I have seen this plant doing equally well on the East Coast. It bears small yellow flowers in late spring to early summer, but it is sought-after primarily for its showy silvery blue-green, medallionlike bracts, reminiscent of eucalyptus leaves, which provide outstanding ornamental value.

YELLOW JESSAMINE

Yellow jessamine *(Gelsemium sempervirens*, Zones 6–10) is native from Virginia to Florida and west to Texas. This twining evergreen vine, which reaches 12 to 20 feet tall, is covered in tubular, soft-yellow flowers in spring. In the Mid-Atlantic, it can vary from semi-deciduous to deciduous. 'Margarita' is a strong flowering and slightly hardier selection. Jared Barnes suggests combining yellow jessamine with reddish-purple-flowered redbud *(Cercis canadensis)*, allowing it to "thread itself through the redbud. Both usually bloom at the same time, and the yellow and purple flowers make a good contrast." Yellow jessamine will tolerate part shade, but flowers best in full sun. Provide support.

These yellow jessamines have been trained to grow up decorative pillars, where their flower-laden stems can gracefully cascade.

CATRIONA T. ERLER

DUTCHMAN'S PIPE

During a recent visit to the Terry Shane Teaching Garden at the Scott Arboretum,

Sources

Brushwood Nursery, Athens, GA. *www.brushwoodnursery.com.*
Cistus Nursery, Portland, OR. *www.cistus.com.*
High Country Gardens, Clinton, UT. *www.highcountrygardens.com.*
Izel Native Plants, *www.izelplants.com.*
Las Pilitas, Santa Margarita, CA. *www.laspilitas.com.*
Woodlanders, Inc., Aiken, SC. *www.woodlanders.net.*

I was amazed to see that the arbor at the end of a formal lawn, which is probably 20 feet wide and 12 feet tall, was completely covered with the bold and textural foliage of the Dutchman's pipe *(Aristolochia macrophylla*, Zones 4–9). Hawke says this vine is perfect for "creating a dense green wall or screen on porches, arbors and other structures, because the large, heart-shaped leaves overlap like shingles." This twining deciduous vine's natural habitat is in the deep moist woods of the Appalachian mountains. In cultivation, however, it thrives in sun or shade. The small, yellow flowers, curiously shaped like small pipes, are usually tucked discreetly amid the foliage.

For gardeners on the West Coast, Sean Hogan, plant hunter and owner of Cistus Nursery in Portland, Oregon, recommends California pipevine *(A. californica)*, which has "ochre or soft yellow flowers appearing in late winter or early spring against dark green stems." Like its East Coast relative, the California pipevine also has bold leaves. It is hardy in USDA Zones 8 to 10.

Both Dutchman's pipe and California pipevine are important hosts for the pipevine swallowtail butterfly.

WOOD VAMP

Found in swamps and moist forests throughout the Southeast and southern parts of the Midwest, wood vamp or climbing hydrangea *(Decumaria barbara,* Zones 5–9), is a North American relative of *Hydrangea anomala* ssp. *petiolaris* (also called climbing hydrangea) and Japanese hydrangea vine *(Schizophragma hydrangeoides)*. While it lacks the showy hydrangealike bracts of the Asian species, in midsummer it is covered in clusters of small, sweetly fragrant white flowers. In the fall, the glossy, oval, dark green leaves turn yellow to a ghostly white.

Wood vamp is a moisture-loving vine with leaves that turn yellow to white in autumn.

Wood vamp is deciduous to semi-evergreen and climbs by attaching to surfaces with aerial rootlets. There are definitely two camps out there with regards to growing vines on stone and brick houses. It can be argued that the aerial roots and tendrils can compromise the mortar between the stones and bricks on a house, but I've been growing wood vamp—and other favorite vines—on the side of my stone house in Pennsylvania for years without problems.

A location in shade or at least part shade with moist, loamy, neutral to acidic soil is ideal. Where conditions are right, wood vamp can grow anywhere from 10 to 50 feet tall.

WISTERIAS

One of the most coveted of all the ornamental vines are the Japanese wisteria *(Wisteria floribunda)* and the Chinese wisteria *(W. sinensis)*. Both are known for their long, pendant trusses of fragrant, blue, purple, and white flowers in the spring. However, both are notoriously invasive and escaped plants have damaged our native woodlands. Two North American wisterias have been promoted in recent years as alternatives.

One of these is Kentucky wisteria *(W. macrostachys*, Zones 3–8). "The blue flowers bloom in June and then sporadically throughout summer in Chicago," says Richard Hawke. "The flowers trusses— six to 12 inches long—are not as massive or pendulous as those of the Asian species, but the flower buds are hardy to USDA Zone 3."

I also recommend American wisteria *(W. frutescens*, Zones 5–9). Twining like other wisterias, it can be grown up any type of fencing, trellising, or arbor, reaching 25 to 30 feet over time. In May and June, stout clusters of pealike flowers appear. The slightly fragrant flowers are

American wisteria *(Wisteria frutescens)* flowers in late spring to early summer.

TOP: BILL JOHNSON, BOTTOM: CATRIONA T. ERLER

Left: Virginia creeper shines in fall, when its leaves turn red and its fruits ripen to black-purple. Above: Crossvine's tubular, nectar-rich, orange flowers attract a variety of pollinators, including hummingbirds.

mostly upright and purple, but can become slightly pendant. Look for selections such as 'Amethyst Falls', which has vivid amethyst-purple flowers, and 'Nivea', which is pure white with each flower having a slightly yellow throat.

Kentucky and American wisteria are far less vigorous and rambunctious than their Asian counterparts and therefore require minimal pruning to keep them where you want them. They will thrive in full sun to part shade and relatively moist soil.

VIRGINIA CREEPER

Ubiquitous in most central and eastern North American deciduous woodlands, Virginia creeper *(Parthenocissus quinquefolia*, Zones 3–9) is often overlooked in favor of the non-native and somewhat invasive Boston ivy *(P. tricuspidata)*. This self-clinging vine has five leaflets that provide a great textural quality, especially when planted to climb up a large wall. The fall color is second to none and can be an intense fire engine-red. The best fall color will occur in full sun. However, this species also thrives in the shade, where the fall color is more muted. In the fall, the vine produces an abundance of black-purple berries sought out by native birds.

CROSSVINE

One of my most favorite native vines is the crossvine *(Bignonia capreolata*, Zones 6–9). For years, the south wall of my house was completely covered in May by the brilliant orange-red, tubular flowers of the cultivar 'Tangerine Beauty'. The timing of the flowering of the crossvine coincides with the return of migrating ruby-throated hummingbirds, which feed on the flowers' nectar.

In most of the South, crossvine is evergreen, but in more northern regions, it is semi-evergreen to deciduous depending on the winter temperatures. In the fall, the narrow leaves turn a dark wine-purple. While it can be extremely vigorous and literally grow 30 feet in a growing season, it is relatively easily managed. It self-clings by sending out delicate tendrils that find their ways into the most microscopic crevices and then the tips of the tendrils expand, thus anchoring the vine to the wall. If you need to control the vine, just prune it back and give it a slight tug and it will release itself from any surface.

The flowers of the species have flared yellow petals and a soft-purple throats. 'Athens' has bicolor flowers with bright orange and yellow. At the Scott Arboretum, we grew 'Atrosanguinea', which is a deeper red. All the crossvines are unbeatable for their vigor and profusion of flowers early in the season.

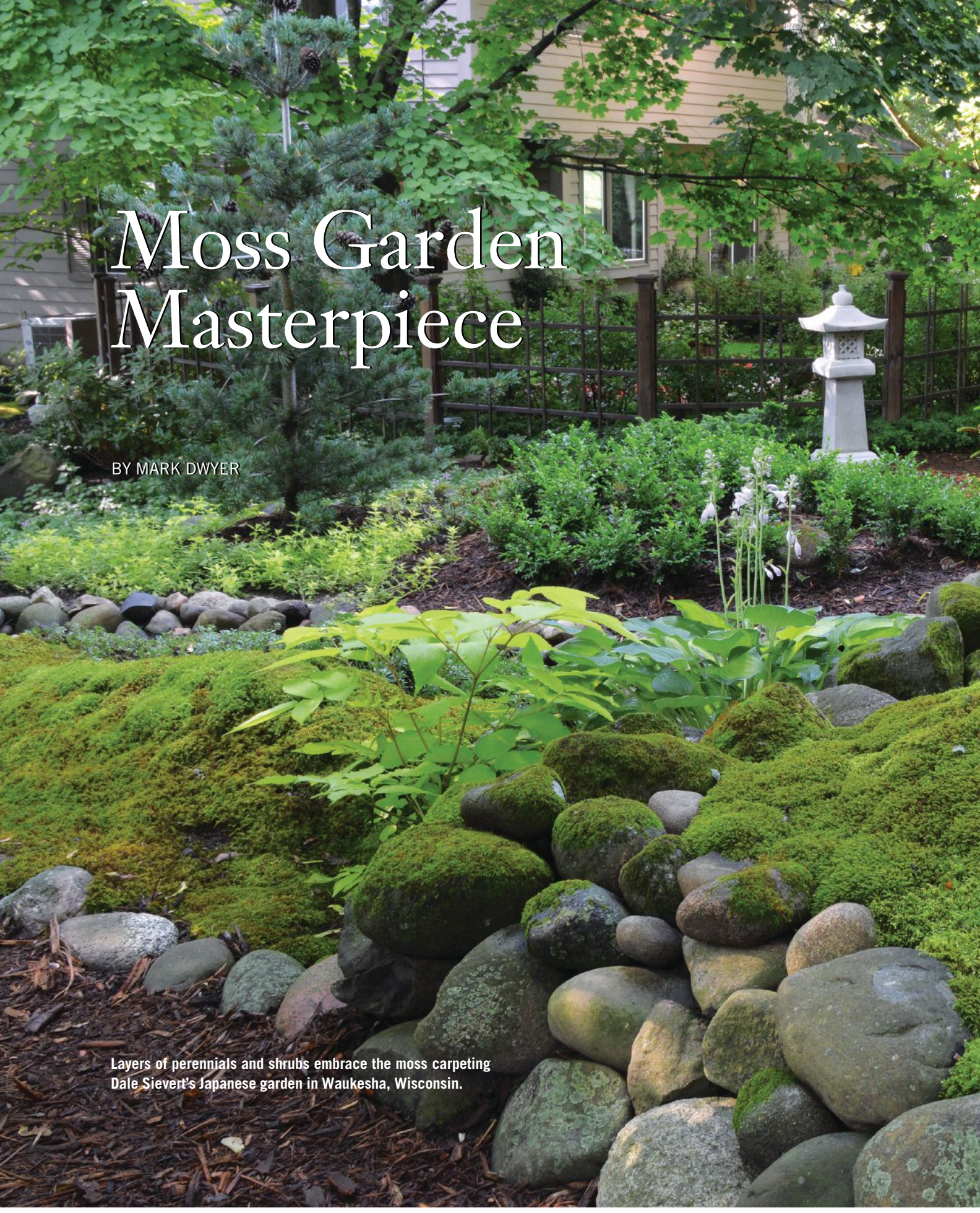
There are many other lesser known native vines that may eventually become more widely available. For instance, considerable research continues with native clematis that will surely result in the introduction of many new selections with value for the ornamental landscape. As more gardeners seek out native plants, we can look forward to more suitable vines to choose from.

Andrew Bunting is vice president of public horticulture for the Pennsylvania Horticultural Society.

LEFT: MICHAEL S. THOMPSON. RIGHT: SUSAN A. ROTH

Moss Garden Masterpiece

BY MARK DWYER



Layers of perennials and shrubs embrace the moss carpeting Dale Sievert's Japanese garden in Waukesha, Wisconsin.

DALE SIEVERT

Fifty years in the making, Dale Sievert's garden is a living tribute to the beauty of moss.

STEP UNDER the cool, dappled shade of large trees and find yourself in a moss-covered, magical wonderland of myriad shades of saturated green threaded through with rich textures and splashes of blue, white, and chartreuse leaves. Hillocks of moss in patchwork colors and subtle patterns are accented by mossy rocks and logs. Welcome to the intricate moss gardens of Dale Sievert, who many refer to as "Mr Moss."

I first met Sievert in 2010, while I was serving as director of horticulture at Rotary Botanical Gardens in Janesville, Wisconsin. He was aware that we had installed a Fern & Moss Garden at Rotary, so he invited me to tour his garden. My first visit there left me amazed, inspired, and covered in goosebumps.

A MOSS MASTERPIECE

Over the last 50 years, Sievert, who lives in Waukesha, Wisconsin, just outside Milwaukee, has created an amazing, one-acre garden that exhibits a masterful use of mosses. The expansive patches of carefully planted, tended, and encouraged bryophytes lend an ancient feel to the property that inspires contemplation, relaxation and enjoyment. Mosses have been cultivated in large patches, significant mounds, along streams and water features, and even in containers. I have visited this garden seven times over the last decade, and I am not only amazed by the ever increasing scope and scale of moss used throughout, but also by the thoughtful design details and engaging features of the garden. It's a remarkable tribute to the passion, inspiration and energy of one gardener.

Sievert's creative moss plantings are woven throughout several connected shade gardens. Many large deciduous trees form an impressive overhead canopy particularly a large specimen Kentucky coffee tree *(Gymnocladus dioica)* and gorgeous katsura tree *(Cercidiphyllum japonicum)*.

A series of paths moves you through a progression of spaces, each of which is defined by available sunlight and changes in elevation. Mossy garden vignettes begin at the front of the residence and weave through the garden with moss not only evident in large patches but on rocks, logs, and in many containers. Thousands of perennials, planted primarily for their foliage color and texture, also thread throughout the space, forming a rich matrix of color. "I love perennials with arresting foliage and form, and care little about their short-lived flowers," says Sievert. More common hostas, ferns, and traditional groundcovers are augmented by drifts of less common Rodger's flower *(Rodgersia* sp.), yellow waxy bells *(Kirengeshoma* sp.), umbrella plant *(Darmera peltata)*, and the always eye-catching 'Sun King' Japanese spikenard *(Aralia cordata)*.

Top right: Dale Sievert shows off one of his favorite cultivated moss hummocks accented with ferns and yellow wax bells *(Kirengeshoma palmata)*. Bottom right: Beneath the multi-stemmed katsura tree *(Cercidiphyllum japonicum)*, a sinuous rock-lined path leads over a footbridge to the raked gravel garden.

Opposite page: Repurposed antique Milwaukee bricks create the paths of the Williamsburg-inspired formal garden filled with red and white annual begonias. Instead of a traditional lawn, Sievert has cultivated tree moss *(Climacium americanum)* to replicate the effect of turf.

LEFT: MARK DWYER. BOTTOM AND OPPOSITE: DALE SIEVERT

While the use of moss is a dominant theme in Sievert's garden, his property features a wide range of other plants. A cacti and succulent garden occupies the sunny front elevation, along with some mosses that tolerate full sun. For arriving visitors, the first indication they are in for some serious moss gardening starts under a grove of ironwood trees *(Ostrya virginiana)* along the driveway. Closer to the house, a sunken garden featuring tropicals in containers transitions to multiple shady moss respites along the edge of an oval of turf. In the back corner of the property, which is the highest point, a shady hillside garden leads to a significant waterfall system. The waterfall, ponds, and streams, all accented with moss, flow back toward the house, where they culminate in a Japanese-style garden. The Japanese garden, which was started in the late 1990s, has

become so magical that Sievert installed an eight-foot-wide picture window in his house so he could view this scene throughout the seasons. A formal garden, inspired by a trip to Colonial Williamsburg in Virginia, is adjacent to the Japanese garden.

One of the remarkable features of the garden, located on a sloped piece of land with a 20-foot elevation change from front to rear, is its hardscaping. A vast system of paths, patios, and retaining walls incorporate 5,000 antique bricks and 2,000 antique cobblestones repurposed from the streets of Milwaukee. An additional system of retaining walls made of railroad ties or stacked rock creates wonderful planting pockets throughout the garden. These hundreds of tons of rock that were acquired, positioned, and placed on site specifically by Sievert amount to over 11,000 rocks and boulders. Many of these hardscape elements, now covered with moss, contribute to the lush feel throughout the garden.

INSPIRED BY PLACES AT HOME AND ABROAD

The initial plantings in Sievert's garden date back to 1970, when his home was built. At that time he was an economics professor at Milwaukee Area Technical College, but he also ran a landscape maintenance company and operated a nursery for many years. It was a 2005 trip to the former Foxfire Garden in Marshfield, Wisconsin, however, that first inspired Sievert not only to encourage existing mosses in his garden but to actively acquire, plant and utilize mosses in a grand manner. Looking back on that visit, Sievert recalls a small mounded area with lichen-covered, dark gray rocks among a sea of incredibly beautiful moss in dappled sunlight. "My life was changed forever! I became an instant moss aficionado; collecting it, reading about it and identifying species," states Sievert. By 2006, he was already experimenting with mosses in his home garden.

In addition to his transformational visit to Foxfire Garden, Sievert's gardening philosophy has been informed by his travels, which include visits to more than 100 countries. He has visited Japan twice, primarily Kyoto, primarily to see this region's renowned moss gardens. "Dale's

Resources

Common Mosses of the Northeast and Appalachians by Karl B. McKnight and others. Princeton University Press, Princeton, NJ, 2013.

Gathering Moss: A Natural and Cultural History of Mosses by Robin Wall Kimmerer. Oregon State University Press, Corvallis, OR, 2003.

The Magical World of Moss Gardening by Annie Martin. Timber Press, Portland, OR, 2015.

Moss Gardening: Including Lichens, Liverworts and Other Miniatures by George Schenk. Timber Press, Portland, OR, 1997.

Commercial Sources

Moss Acres, Honesdale, PA. *mossacres.com.*

Mountain Moss, Brevard, NC. *www.mountainmoss.com.*

extensive travels around the world to visit botanical gardens have inspired him to create his own impressive moss retreat," says Annie Martin, owner of Mountain Moss Enterprises, Inc., and recognized moss expert. "His meticulous attention to detail has enabled him to maintain the moss magic."

There is little down time for Sievert, who at 78 still puts in at least 10 hours each day in the garden when he's not traveling or, occasionally, consulting on the use of mosses in other gardens. He has created five other well-received moss gardens both in public and private situations and has helped at many more, including at Rotary Gardens and at the Anderson Japanese Gardens in Rockford, Illinois. "Dale is absolutely passionate about moss and has been a great asset for us here at Anderson Japanese Gardens," says Tim Gruner, curator and head of horticulture for Anderson. "He has a great depth of knowledge regarding moss and how to grow it."

WORKING WITH MOSSES

Sievert's skill with mosses is based partly on research and partly on trial and error. He freely admits that his first foray into moss gardening was not a success. After collecting moss off a neighbor's cedar shake roof (with permission of course), he found the transplanted pieces did not establish. This led him to the realization that replicating the conditions in which your "target moss" is found is a key to success. His next try with transplanted moss from the woods of another neighbor settled in well in his garden.

Sievert typically only collects small, four to six-inch patches of moss from any one site so that the original patch is able to regenerate easily. Leaving about a half inch of soil substrate under the moss while carefully skimming it up allows for it to be transferred, pressed into place and watered. Moss does not have true roots and attaches by use of rhizoids, hence its ability to attach to boulders and other hard surfaces.

For those who might be interested in trying to grow moss, Sievert advises, "Start each moss garden with a several-month test of only one to two square feet. Mosses can be very particular where they grow, so it is better losing a small area rather than a large area." See the sidebar for tips (opposite page) on trying some moss in your own landscape. Always collect moss with permission and be aware of laws and restrictions to collecting mosses in wild or protected locations.

In addition to using the "patch planting" method described above, Sievert has expanded his use of moss by incorporating boulders, logs, and other features that are graced with mossy growth. The majority of his mossy spaces in the garden have their own topography and include a contrived, mounded underlayment, mossy rocks, and more to add subtle dynamism to the spaces. "I generally build specific moss gardens using two or three different species, and I use about 10 species in total. I incorporate rocks, often moss-covered, into my gardens, as well as small perennials, usually a foot tall or less, but up to two feet in height. I also often add a small moss-covered branch to lay on the top of my moss gardens." Some favorite, shorter perennials that he rec-

Sievert cultivates hundreds of containers of moss in his garden, including this one of yellow yarn moss *(Anomodon rostratus),* which forms a tight, textured bun.

DALE SIEVERT

From the entrance gate, patches and mounds of moss soften and highlight the Japanese garden, leading the eye through the serene space.

DALE SIEVERT

ommends include fragile fern *(Cystopteris fragilis)*, early meadow rue *(Thalictrum dioicum)*, and jack-in-the-pulpit *(Arisaema triphyllum)*. Sievert also recommends using a small amount of 100 percent clear silicone caulk to attach moss patches to rocks or smooth surfaces which gives it some help in attaching more quickly.

Sievert has mastered planting shallow containers with moss and has hundreds adorning his garden. The earlier thematic spaces in Sievert's garden have become more beautiful with the addition of moss. Due to increasing shade in the symmetrical, Colonial Williamsburg-inspired garden, Sievert replaced the ailing turf entirely with tree moss *(Climacium americanum)*, which mimics the look of a green lawn.

Sievert takes his role as an advocate for moss gardening seriously and is generous with his knowledge, scheduling many moss-related lectures, articles, and tours of his own garden to inspire others to embrace moss as a viable and impactful landscaping component. "I find moss paradoxical," says Sievert. "It engenders serenity and tranquility when passing through gardens of it, but when hydrated and backlit by a low-angle sun it stuns the soul with a sensation that is electric!"

Sievert hopes his garden will help others understand and appreciate the value of mosses. A sign in the garden bears a quote from George Schenk, author of the classic *Moss Gardening* (see "Resources," opposite page), that states "Every John and Jane grows grass. Only nature's chosen grow moss." Sievert is most certainly one of nature's "chosen" and his love of the moss garden has already encouraged and inspired the next generation of moss aficionados. Having known Sievert personally for many years, I sense that he is just getting started with his exploration of mosses in the garden and the best is yet to come.

TIPS FOR STARTING A MOSS GARDEN

- Start with a small area of open soil of about two square feet.
- Consider multiple locations for experimentation.
- Use mosses found on site, collected with permission from neighboring properties, or purchased from ethical commercial sources (see box, opposite page).
- Harvest only small patches to avoid damaging fragile ecosystems.
- Try to match your site to the conditions in which you collected the moss (lighting, humidity, moisture, etc.).
- Place, water and press/step in to place with patches close together.
- Commit to moss maintenance (watering, removing debris, etc.).
- As you achieve success, consider moss on rocks, in containers, etc.

Mark Dwyer is a writer, speaker, and landscape design consultant based in Janesville, Wisconsin. You can read his blog at www.landscapeprescriptionsmd.com/marks-blog.

Bridging the Divide

In communities around the country, urban food forests are helping battle food insecurity, bridge socioeconomic divides, and create more green space.

BY LORRAINE BOISSONEAULT

COURTESY OF JODI LANE

JODI LANE will never forget the story Michael Monreal, a silver-haired elder of the community, told her about running through the alleys collecting plums as a boy. Around 2012, she and other residents of her neighborhood in East Austin, Texas, began holding backyard meetings to discuss the creation of an urban food forest for the community. That's when Lane learned about the special role of gardens in the predominantly Latino neighborhood. When the plums—or any other fruit—were ripe and falling from the trees, the moms would send each other a signal and soon the young boys were sent with baskets to collect and then disperse the harvest through the neighborhood. But over time, as more grocery stores began popping up, and people began working multiple jobs, fewer people had time to maintain their gardens. Then came the outpricing of locals through gentrification and things continued to spiral from there.

"It took us about two years to fulfill on our commitment to move at the speed of trust, and build relationships across differences in an environment where gentrification was engulfing the neighborhood, fragmenting the landscape both socially and

The Festival Beach Food Forest in Austin, Texas, is only five years old but has become an important part of the local community. Opposite: Members of the community and volunteers gather in 2018 for Harvest Day and the unveiling of a fork sculpture in the forest. This page: The forest includes plantings of grapes, top, and bananas, above foreground.

TOP: COURTESY OF MICHAEL MONREAL. BOTTOM: COURTESY OF JODI LANE

ecologically," Lane says. "It takes focused attention and care over a sustained period of time to build the social soil, especially in neighborhoods shaped by a history of environmental racism."

But those early conversations—and inspiration from older traditions—paved the way for the Festival Beach Food Forest (FBFF). By 2014, the city had agreed to give the community two-thirds of an acre of public park land as a launchpad for the urban food forest. After receiving a grant in 2015, a team of volunteers planted over 100 fruit and nut trees and began installing trails and benches.

Today, the FBFF is nestled between a community garden, Ladybird Lake, and the Rebekah Baines Johnson Center for seniors and people with disabilities. Lane, one of the co-founders, says the forest has already become so lush that you can't see through it. It's just been five years in the ground but already peaches, figs, persimmons, mulberries and loquats are being harvested by the seniors and passersby and shared as tinctures and teas during the First Saturday Plant Walk. The team of volunteers has also planted grapes and edible bamboo, as well as almost 1,000 lower growing edibles and herbs such as lavender, oregano, mint, purple coneflower, and lemon balm. The verdant space, completely open to the public, is already producing plenty of food for anyone who happens to stroll by.

Austin's foray into urban food forests is one of a handful of examples of food forests grown on public land. However, it has become a trend in American cities on private property over the last two decades, with viable programs now established in over 80 locations according to Catherine Bukowski, a researcher and consultant with Kindred Roots Design, LLC, who chronicles food forests on her blog (see "Resources," page 28).

HISTORIC AND GLOBAL ROOTS

Indigenous and traditional food forestry is rooted in reciprocal relationships with ecosystems. The earliest artistic depiction of this practice comes from a 3,500-year-old fresco showing fruit trees in an Egyptian garden. Vast tracts of the Amazon rainforest have been shown to be dominated by food trees, planted by indigenous people thousands of years ago. According to John Munsell, a professor of forest management at Virginia Tech University in Blacksburg, even the fabled Hanging Gardens of Babylon were said to have incorporated fruit trees into their design.

Modern food forests have taken root in cities around the world, from Europe to New Zealand and Australia. These contemporary versions of agroforestry are also based on eco-mimicry, Munsell says. That means creating a cultivated agricultural space designed to function the way forests do in the wild, using a mix of trees, shrubs, and annual plants. "A community food forest is the intentional combination of different species in patterns that can achieve some level of persistent biomass on site," notes Munsell.

The first known example of this type of intentional forest on public land in the United States was created in Asheville, North Carolina, in 1997. But it wasn't until the

Above: This bed at the Beacon Food Forest in Seattle demonstrates the basic building block of a food forest called a plant guild—a polyculture that includes a canopy tree, typically a fruit or nut tree, surrounded by lower growing shrubs, herbs, and groundcovers selected for their functional contribution, such as pollinator attraction, green manure or nitrogen fixation, and/or providing a harvestable product.

In addition to attracting pollinators, roses in the food forest provide fruits, right, that can be harvested to make teas packed with vitamin C.

opening of the Beacon Food Forest in Seattle, Washington, more than a decade later that the national media started paying attention. At that point, public interest seemed to explode, potentially because being located on public land, it is open to anyone to harvest. "We saw a huge spike around the time of the Great Recession [in 2008] and the years following," Munsell says. Food forests began appearing throughout the country, in communities of all sizes.

When communities can muster the necessary resources—which includes not only labor, but also land, permits, and the fruiting plants themselves—the benefits of these arboreal gardens are numerous. They produce shade and green space in urban environments that are often dense with concrete. For under-resourced communities, food forests can be a source of healthful foods. One study, published in the journal *Landscape Ecology*, found that if food forests were set up across the city of Burlington, Vermont, enough could be harvested to meet 108 percent of the daily recommended fruit intake for the entire population.

Bukowksi who is also the co-author, along with Munsell, of *The Community Food Forest Handbook*, says that even if those living in food deserts can't feed themselves exclusively from these trees, the spaces are still incredibly valuable and multifunctional.

"The idea that you're growing food communally in landscapes that might be marginal and wouldn't be used for development is a political act. It's educational on how to gain sovereignty and feel empowered in shaping urban landscapes," Bukowski says. "It's a great opportunity to meet up with people and it provides a lot of health benefits, cognitively as well as physically."

URBAN CHALLENGES

But even if groups can generate enough enthusiasm and support for their food forests, the projects still come with a lot of challenges. Perhaps most important is managing people's expectations from the start. While annuals and perennials will produce harvests relatively quickly, shrubs and trees are slow growing and sometimes take years before they are mature enough to bear fruit.

"The groups that have the most success are those that have a lot of foresight and planning before a tree even goes in the ground, about what you're going to do as that forest begins to slowly mature," Munsell says. "What other activities can you integrate into that site that will keep people excited?"

Bukowski adds that there's a difference between a community being genuinely invested in the forest and a disparate group of people from outside the neighborhood who want to be involved in the project—a community of place versus a community

CATHERINE BUKOWSKI (2)

The Urban Food Forest at Brown's Mill in Atlanta provides an educational setting for kids, including participation in a hands-on program led by former teacher Jason Paggett of "AG" Made Fun, top. Above: Mike McCord, left, one of the food forest's coordinators, with Jy'Quan Almond, a dedicated young volunteer who recently received Park Pride's inspiration award for his efforts.

TOP: COURTESY OF THE CONSERVATION FUND. BOTTOM: COURTESY OF TREES ATLANTA

of interest. With the latter, interested people might be seen as outsiders or a gentrifying force in marginalized communities. "I think that needs really close attention anytime someone is thinking about putting a community food forest in a particular area," Bukowski says.

Choosing the site and the plants to be grown can also have other environmental complications, such as making sure that the soil is not contaminated with heavy metals or other pollutants, and that the trees selected don't produce pollen that might exacerbate people's allergies.

Other issues faced by urban gardens include dealing with homeless populations, occasional vandalism, and animal pests. Lane says that although they haven't had any issues with animals, these issues do pose important food forestry design challenges. How do you prevent the "tragedy of the commons" caused by people taking more than their share, leaving trash or other violations of the social norms needed to manage a common pool of resources?

Lane says that the Festival Beach Food Forest has embraced this challenge, by drawing on some of the fundamental principles of regenerative design. For instance, by "transforming problems into potential," and "appreciating uniqueness." The FBFF teams recognized the potential to transform a barren, dry piece of land into a food-producing, sheltering place that the people and creatures who already called the site "home" may end up loving and protecting. Which is what is happening—all who frequent the space are treated as unquestionable members of the community commons, and many have become faithful stewards and guardians of the forest after understanding it for what it is and can be.

GOING BIG IN ATLANTA

One of the newest food forests is the Urban Food Forest at Browns Mill, in southeastern Atlanta. Set on 7.1 acres of what was once a family-run pecan farm, it became the largest food forest in the United States when it officially opened in summer 2019. The land, originally slated for development, was purchased by the nonprofit Conservation Fund in 2016 with the aid of a grant from the U.S. Forest Service. The Conservation Fund then transferred the land to the City of Atlanta.

"Some of the local residents still remember petting horses and receiving donations of extra food, so they already have an attachment to the site," says Mike McCord, who is a project coordinator with the nonprofit Trees Atlanta. Already, a core group of neighbors has adopted the forest and volunteer there several days a week. While progress has been slowed somewhat this year by the pandemic, McCord says the forest is ramping up its classes and workshops on topics ranging from composting, to growing vegetables, and even bird identification. In addition, he says the community is using the forest much like they would a traditional park. "It is giving kids access to green space because there are not a lot of parks nearby."

Because the site was originally a working farm, there are already quite a number of existing fruiting plants, including pecans, walnuts, elderberries, and muscadines. Staff and volunteers have since planted thousands more tree and shrub seedlings throughout the property. With the help of volunteers, a large community garden has been built and planted and will continue to produce harvests year-round thanks to Atlanta's mild winters.

Food Forests

Beacon Food Forest, Seattle, WA. *https://beaconfoodforest.org.*
Dr. George Washington Carver Edible Park, Asheville, NC. *www.facebook.com/Dr-George-Washington-Carver-Edible-Park-620672487948577.*
Festival Beach Food Forest, Austin, TX. *https://festivalbeach.org.*
Urban Food Forest at Browns Mill, Atlanta, GA. *www.aglanta.org/urban-food-forest-at-browns-mill-1.*

Resources

Community Food Forests Blog, maintained by Catherine Bukowski. *https://communityfoodforests.com.*
The Community Food Forest Handbook by John Munsell and Catherine Bukowski. Chelsea Green Publishing, White River Junction, VT, 2018.

In addition to addressing food insecurity, McCord says he hopes the forest will "shift the general public's mindset about land stewardship by creating a beautiful, welcoming community garden and orchard that residents are able to access."

SUSTAINING THE MOMENTUM

When Bukowski first began researching American urban food forests in 2013, little work had been done on the subject. But in just the last few months, a special issue of the *Journal of Urban Forestry and Urban Greening* was dedicated entirely to urban food forestry—a huge advance, Bukowski says. "What I predicted a few years ago is that it would become more common, with more local government agencies accepting the idea and putting them in public parks," Bukowski says. "That's already happening."

Given the ongoing coronavirus pandemic, it's not surprising that more people are thinking about where their food comes from and looking for ways to participate in the process. As urban food forests become more mainstream, the hope is that more people will get involved in their communities.

"I liken it to how a forest evolves," Munsell says. "There's a whole ecological successional principle. Things come in, things die, other things move in to occupy space and take resources. That kind of successional plan is equally important with respect to leadership and organizations."

In Asheville, North Carolina, a resident picks wild raspberries that have been maintained as part of the food forest edge along a popular pathway connecting the Dr. George Washington Carver Edible Park and Stephens Lee Recreation Center to Pack Square Park downtown.

CATHERINE BUKOWSKI

The Asheville food forest, now called the Dr. George Washington Carver Edible Park, is one good example of this, Munsell says. After its initial creation, the number of volunteers dwindled and the garden was on its own for a few years. But the plants did just fine, and when a new round of volunteers came in, all that was needed was a bit of maintenance and sprucing up.

Meanwhile, momentum is still strong at the Festival Beach Food Forest, where Lane and others who are building a new nonprofit called Fruitful Commons have secured funding for permaculture designers and local community members, especially those of color, to implement exciting new projects. This new entity strives to resource other urban agricultural projects as well, particularly those that have diversity, equity, and inclusion goals but find it difficult when highly valuable input and effort goes unpaid. Lane envisions a future in which Austin is covered with gardens and forests, providing people with nutritious food and healthy interactions with their neighbors near and far.

But even with big dreams for the future, Lane hasn't lost sight of the progress already made. "In our food forest, people who wouldn't normally interact with each other or their natural surroundings are doing just that," Lane says. "The more we can build diverse regenerative places like these, the stronger we will be as a society."

Lorraine Boissoneault is a freelance writer based in Chicago, Illinois.

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Growing Home with Native Self-Sowers

For economy and ease of care, include self-sowing native plants in your garden.

BY JARED BARNES

No matter what term you use to refer to self-sowers—pioneers, self-seeders, ruderals, or volunteers—these plants celebrate abundance. They cast thousands of themselves into our gardens (sometimes from a single plant!) and stake their claim to our soil where they will return for many years to come. And, for amateur gardeners or those starting new beds, self-sowers help make a garden look full and lush quickly.

While we revel in such blessings, sometimes too many plants can be a curse, as is the case with many exotic, introduced species that have invaded. Fortunately, we have many natives that we can use to fill our gardens with abundance, flowers, and food for wildlife. I find three characteristics of self-sowing natives to be most desirable for gardeners: covering the ground, offering bright color, and being floriferous.

COVERING NEW GROUND

Because self-sowers produce copious amounts of seed, they are effective at covering the ground. Bare soil is soon cloaked in a carpet of green. Why not have desirable plants in our garden that will fill those gaps instead of unsightly weeds?

Orange jewelweed *(Impatiens capensis*, USDA Hardiness Zones 0–0) is one of my favorite self-sowers for shady, wet areas, and it is native to most of the eastern half

Orange jewelweed self-sows readily in shaded to partly sunny sites that have moist soil. Herbalists have long touted the use of the plant's sap as a balm for poison ivy and other skin irritations.

JUDYWHITE, GARDENPHOTOS.COM

TOP: JOSH MCCULLOUGH. BOTTOM: BILL JOHNSON

of the country. As a kid, I loved to find these plants along ditches and creek banks around my home in rural west Tennessee. Their orange, jewellike flowers and subsequent exploding seed pods were always a treat. It wasn't until I got older and started reading in James Duke's book, *The Green Pharmacy*, that I learned the plant could help to prevent poison ivy rash and also treat the dermatitis that follows.

I also have fond memories of woodland phlox *(Phlox divaricata*, Zones 3–8) blooming in the woods near my home and found throughout the eastern half of the U.S. On breezy spring days, I would stand and watch as the blue haze swayed on the forest floor. My parents also had this phlox in their garden. The blue-to-purple colors were always a welcome sight after a cold winter and their sweet fragrance wafts in the wind. While plants are perennial, they are short-lived

Top left: Native to the eastern United States, quick-growing partridge pea helps fix nitrogen in soil. Bottom left: Blanket flowers *(Gaillardia* spp.) are generally orange, but 'Grape Sensation', a two-foot-tall selection from Texas, bears red-purple blooms.

and benefit from being able to sow themselves around in your garden. I like combining them with other natives, such as yellow-flowered 'Corbett', a selection of our eastern red columbine *(Aquilegia canadensis*, Zones 3–8)

Another native self-sower I learned from the backroads near my house was partridge pea *(Chamaecrista fasciculata*, Zones 3–9). Native to the eastern half of the country, this member of the bean family can quickly fill gaps in a planting. Their quick establishment and ability to fix nitrogen has earned their use not only in naturalistic plantings but also in restoration projects. The cheerful yellow flowers are a great source of nectar for pollinators. To me, the flowers look like dancers in draping yellow gowns with their arms open wide, ready to greet bees. The dark brown, sickle-shaped seedpods that follow are good forage for songbirds.

Blanket flowers *(Gaillardia* spp.) are also beautiful self-sowers, native to a broad swath of the South and Southwest. One of my favorites is 'Grape Sensation', a selection of the underused Texas native

Winkler's blanket flower *(G. aestivalis* var. *winkleri*, Zones 7–9). While the straight species is rare in the wild and commerce, this wonderful cultivar developed by Dawn Stover of Nacogdoches, Texas, is available in the trade. Several plants together will carpet the ground with verdant foliage, and the lovely flowers—which bloom all summer long—have wine-colored rays around darker central disks. Even from a distance, I can see bees working as the blooms bob up and down from their weight. After the flowers are pollinated, they become mini-geodesic domes of ornamental seedheads.

A biennial, standing cypress bears red flowers on three- to six-foot-tall stems in its second year.

SOME LIKE IT HOT

Some annual self-sowers also give us hot bright flowers for the garden. These are a few of my favorites for eye-catching reds and stunning oranges.

One of the biggest impact self-sowers I grow in my garden is standing cypress *(Ipomopsis rubra*, Zones 6–9). Before this plant explodes into flower, it looks like a green Cousin It from the Addams Family with its highly dissected, silvery mounds of foliage. Of course, soon it reaches for the sky as it unfurls hundreds of tubular-shaped red flowers that delight ruby-throated hummingbirds. Native to the central United States, this biennial is very adaptable and can even be grown on green roofs in less than six inches of growing substrate. I prefer to grow it on the lean side because too much water and fertility can result in plants flopping.

Scarlet sage *(Salvia coccinea*, Zones 8–10) is a lovely southeastern U.S. native

Despite its name, California poppies grow well in lean, well-draining soil in many other parts of the country, as seen here in a Texas garden.

TOP: JARED BARNES. BOTTOM: SUSAN A. ROTH

MORE SELF-SOWERS FOR THE GARDEN

Plant Name	Height	Ornamental Characteristics and Culture	Native Range	USDA Hardiness Zones
Centaurea americana (American basket flower)	2–5 ft.	Annual. Similar to thistle without the sharp prickles; fluffy, lavender flowers with a honey fragrance bloom in mid- to late spring. Part shade; average to dry alkaline soils	Central and southeastern U.S.	0–0
Conoclinium coelestinum (blue mist flower)	1½–3 ft.	Short-lived perennial. Clouds of fuzzy, periwinkle-blue flowers bloom in July into into October. Full sun to part shade; average to wet soils. Can spread aggressively	Central and southeastern U.S.	5–10
Delphinium carolinianum (Carolina larkspur)	1–2 ft.	Perennial. Delicate,blue-violet blossoms on slender stalks flower April into June and attract hummingbirds. Full sun to part shade; average to well-drained, fertile soils	Central and southeastern U.S.	4–7
Helenium amarum 'Dakota Gold' (Dakota Gold sneezeweed)	12–14 in.	Annual. Bright gold, daisylike flowers cover the fine-cut foliage July into September. Full sun to part shade; well-drained to dry soils	Central and southern U.S.	0–0
Helianthus argophyllus (silver leaf sunflower)	4–7 ft.	Annual. Hairy, silvery foliage supports large cheerful sunflowers from late summer into autumn. Full sun; moist to well-drained soils	Southeastern U.S.	0–0
Helianthus debilis 'Vanilla Ice' (Vanilla ice sunflower)	3–4 ft.	Annual. Creamy white flowers on small-statured plants bloom late summer into fall. Full sun; moist well-drained soils	Southeastern U.S.	0–0
Hymenopappus artemisiifolius (old plainsman)	3–6 ft.	Biennial. Flowers start white, and then fade to a rosy pink. The silvery basal rosettes overwinter and then skyrocket into bloom in early spring. Part shade; well-drained to sandy soils	Southern U.S.	6–8
Lobelia siphilitica (blue cardinal flower)	2–3 ft.	Perennial. Robust tall flower spikes of bilabiate blue flowers welcome bees July into September Full sun to full shade; moist to wet soils.	Central to southeastern U.S.	4–9
Monarda citriodora (lemon mint)	1–2½ ft.	Annual. Light lavender flowers with lemony fragrance bloom May to August. Full sun to to part shade; average to dry, rocky soils	Southern U.S.	0–0
Streptanthus maculatus (clasping jewelflower)	2–3 ft.	Biennial. Purple, butterflylike flowers bloom in tall spikes in spring. Full sun to part shade; average to well-drained soils	Southern U.S.	6–8
Stylophorum diphyllum (celandine poppy)	1–1½ ft.	Perennial. Bright buttercup yellow flowers bloom in early spring above green, fuzzy foliage. Part shade to full shade; average to wet soils	Central U.S.	4–9

with rich red, bilabiate flowers that are magnets for ruby-throated hummingbirds. I've seen it growing around old homesteads, a reminder that gardeners once lived there. Plants can be perennial in the most southerly zones; their heart-leaved seedlings are easy to recognize and can be easily removed if too many plants return. Often self-sown plants will flower early in the year, leaving brown calyces later in the season. These can be cut back to encourage rebloom.

Another well-known self-sower is California poppy *(Eschscholzia californica*, Zones 6–10), beloved for its dreamsicle-colored flowers that glow in the sunlight. I have swooned over the super blooms in California. Flowers are a bit picky and will open on full sun days and close at night or during poor weather. Even before it blooms, the dissected foliage with a blue-green patina is attractive in the garden. This species seems to do better in sandy areas of the garden or the edge of a gravelly pathway, as too rich soil can result in fewer flowers and more foliage.

FLOWER POWER

Self-sowers are often flower powerhouses. Because of their short-lived nature, they try to produce as many seeds as they possibly can, and, to do that they must have plenty of flowers.

One of my favorite self-sowing annuals is annual black-eyed susan *(Rudbeckia hirta*, Zones 3–8), which is found throughout the

country. Flowers appear for weeks during the summer. I'm particularly fond of the cultivar 'Indian Summer'. My parents have had it reseeding in their Tennessee garden, and now I've started plants at my house from their original planting. This cultivar is a tetraploid, which means that it has double the amount of DNA of the typical species, so flowers and leaves are larger than those of the wild species.

Another great flowering self-sowing native, plains coreopsis *(Coreopsis tinctoria*, Zones 0–0), thrives almost everywhere. My wife, Karen, loves the cheerful yellow flowers with mahogany highlights that explode into bloom on wiry stems. The cultivar 'Roulette' is particularly showy with its deep burgundy color. The epithet *tinctoria* means used in dying, and enthusiasts still use this plant to color fabric today.

Snow-on-the mountain *(Euphorbia marginata*, Zones 0–0) and snow-on-the-prairie *(E. bicolor*, Zones 6–9) are both colorful self-sowers found in the southern U.S. The white-and-green color is striking from a distance or up close. The showy white to cream-colored flowers are technically bracts, or modified leaves. If you keep bees, be forewarned that according to horticulturist extraordinaire Leslie Halleck of Dallas, Texas, both of these species

Spring-flowering Gulf Coast penstemon, top right, grows in moist soil and is a prolific self-seeder. Bottom right: Plains coreopsis is ideal for naturalizing in large areas such a meadows.

can make honey hot or bitter, resulting in what some beekeepers call "jalapeño honey." Because these plants bloom later in the year in her garden, Halleck harvests her honey in mid-July.

I have long adored penstemons for their colorful flowers, however, some of them can be finicky about returning each year. Gulf Coast penstemon *(Penstemon tenuis*, Zones 7–10), native to Texas and Arkansas solves that issue by being a vigorous self-sower. For me, it tends to be very short-lived, but produces copious amounts of seed. I've even seen it sow itself into containers of plants! The lilac-colored blooms are quite lovely early in the spring and I have mine planted near false indigo *(Baptisia australis*, Zones 3–9) to echo the purple hues. Once pollinated, the seed capsules can be dried and used in floral arrangements.

TOP: BRINDA MANDELLA. BOTTOM: JANET LOUGHREY

SELF-SOWERS IN YOUR GARDEN

Why is it that some species are more adapted to self-sowing than others? Much of a plant's capacity to return from seed depends on its survival strategy. Philip Grime, a British ecologist, studied these plant survival strategies, and classified plants based on their adaptations. For plant species that experienced frequent disturbance (the interruption of plant growth by fires, trampling by animals, mudslides, etc.), it is hard to survive for many years. Therefore, selection occurred over generations for traits like having a short lifespan and the production of copious amounts of seed. He called these plants ruderals, a name that refers to plants that grow in wastelands and gravelly areas.

With this knowledge, we can make our gardens more hospitable to self-sowing natives.

■ Self-sowers begin to muddle our mental models of annual, biennial, and perennial, because some may take two or three years before they flower, and others may die out after only a few years. Therefore, be patient with them if they take a bit longer to flower or if they don't live as long as you anticipate, even if they carry labels like annual or perennial.

■ Since these plants rely on getting started from seed, they must have soil contact. Be cautious overusing mulch, or apply mulch after self-sowers have emerged. I like to have gravelly or sandy areas of my garden for self sowers. The lean soil also helps to reduce competition from other plants. Where a garden bed grades into a gravel path can be a perfect spot.

■ Many self-sowers are great to have in a planting because if disturbance occurs from mammals or a plant dies out, they can quickly germinate and fill gaps.

■ If you use pre-emergent herbicides to prevent weeds from germinating, those same compounds can also stop desirable self-sowing natives from popping up, too. Make sure you take care with using them around self-sowers. —J.B.

JARED BARNES

Although a self-seeder, Texas bluebonnet *(Lupinus texensis)* can be finicky and is generally a challenge to grow outside its native range. Here it creates a spectacular display in a Texas field.

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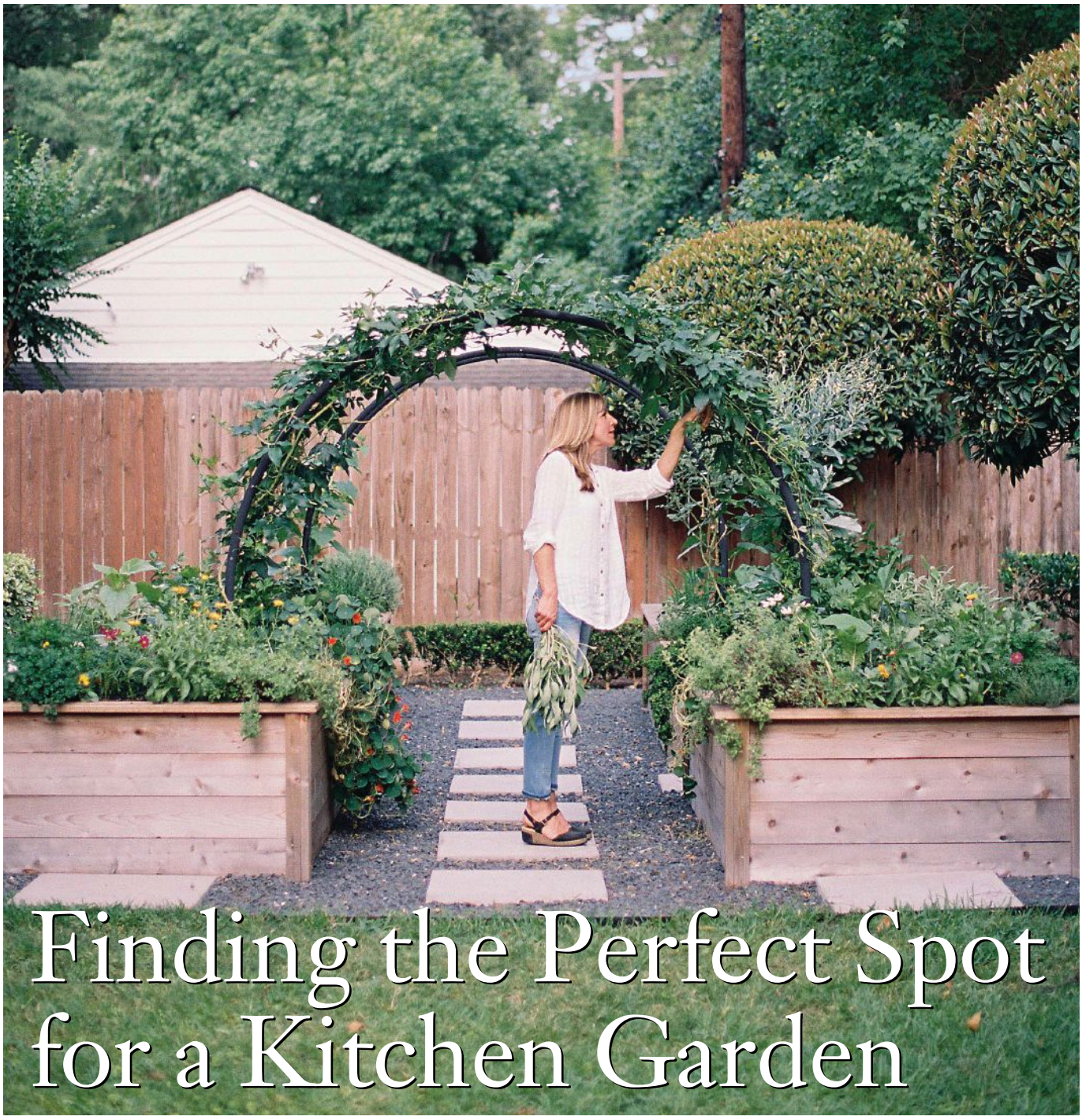
Plant Strategies, Vegetation Processes, and Ecosystem Properties by J. Philip Grime. Wiley, Hoboken, NJ, 2001.

One of the most famous native self-sowers is the Texas bluebonnet (*Lupinus texensis*, Zones 6–8). Viewing a sea of royal blue flowers in the wild will make you weak in the knees. As an indicator for pollinators, the largest petals on the flowers actually change color from white to pink about six days after opening. The tuft of white immature flowers at the top earned it the name *el conejo* or "the rabbit" from the Spanish settlers who saw it and thought it resembled a bunny's tail. In Texas, I've seen it thrive in patio cracks and roadside shoulders. If you find yourself struggling to grow Texas bluebonnet in your locale, try sandyland bluebonnet *(L. subcarnosus,* Zones 0–0), which is native a bit further east.

While these dozen or so plants I've shared with you—plus the additional ones covered in the chart on page 33—are just the beginning, I hope that I have whetted your appetite for finding more that will perform in your yard.

Jared Barnes is an associate professor of horticulture at Stephen F. Austin State University in Nacogdoches, Texas, and educator at www.meristemhorticulture.com.



Finding the Perfect Spot for a Kitchen Garden

A landscape designer maps out the fundamentals of locating a culinary garden space for maximum beauty, yield, and enjoyment.

BY NICOLE JOHNSEY BURKE PHOTOGRAPHS BY ERIC KELLEY

This article is an adapted excerpt from *Kitchen Garden Revival: A Modern Guide to Creating a Stylish Small-Scale, Low-Maintenance Edible Garden* by Nicole Johnsey Burke with photographs by Eric Kelley, published by Cool Springs Press, 2020. Used with permission of the publisher.

OVER THE LAST few decades, there's been a growing interest in knowing our foods' sources, returning to organic growing methods, and appreciating the nutrients available when eating freshly picked food. The kitchen garden is a key part of this movement. Called a kailyard in Scotland and potager in France (sounds fancy, right?), a kitchen garden is a place closely connected with your kitchen and everyday life. It's a distinct area of your home and landscape where vegetables, fruits, and herbs are grown for culinary use. It can be as small as a collection of garden boxes on the patio or deck or it can be as large as a formal stone garden that covers hundreds of square feet.

Choosing your kitchen garden's location can be a tough decision. In some cases, the decision may have already been made for you if you have only a patio or one patch of ground that gets sunlight. And, for others, you may have countless spaces where a garden could belong. In both scenarios, there's more to the decision than you think.

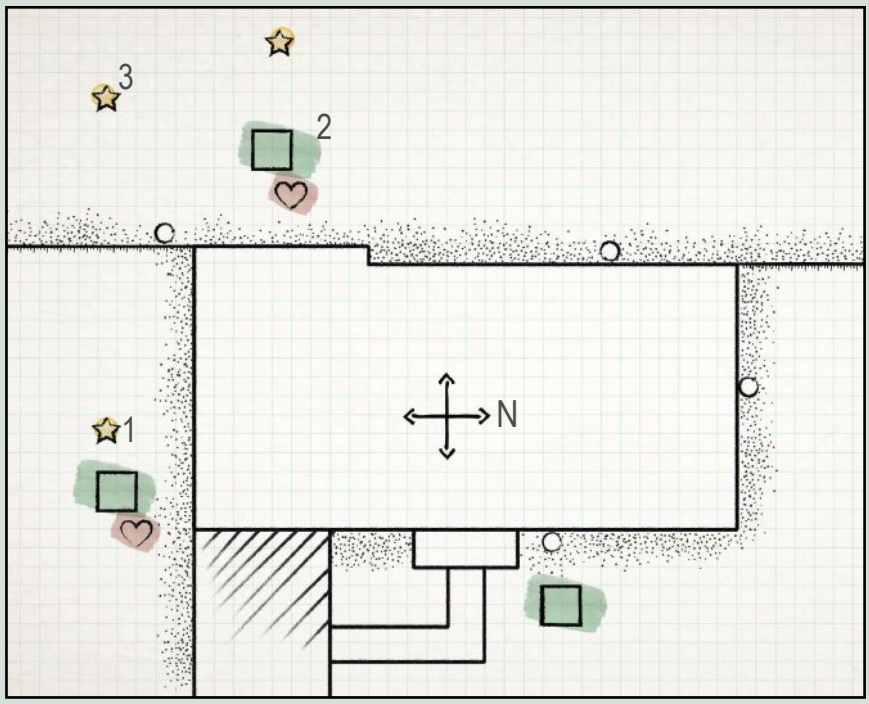
Let's start with a message for the perfectionists and overachievers: There's no such thing as a perfect location. At least, it's very rare that you'll find it, especially if you live in the city. But even without a perfect spot, delicious food will grow beautifully in the space you have available.

MAPPING OUT THE BEST LOCATION

Picking the best spot for your kitchen garden involves balancing priorities and considerations. After designing hundreds of gardens, I've created a system that works to help you sort through the options. There are four key aspects to consider before choosing your kitchen garden site: Sunlight exposure, water proximity, convenience, and aesthetics.

As you select your garden location, the goal is to find a location that matches this blueprint as closely as possible: receives six or more hours of sunlight per day, is near a water source, and is located as close to the kitchen and your everyday activities as possible. You also want a spot that will tie in well to the rest of your landscape and is able to accommodate the size necessary to hold the amount of vegetables and fruit you'd like to harvest.

Each of these aspects should be considered, as they all matter. But some matter more. At least 60 percent of your decision



MAP AND ANALYZE YOUR SITE TO HELP SELECT THE BEST GARDEN LOCATION

- Draw your home and yard to scale.
- Find the cardinal directions and add them.
- Add stars to mark the sites that get the most sun and circles to note spigot locations.
- Consider all the aspects an number your kitchen garden locations in order of preference.
- Add squares to note accessible spots and hearts to note spots where the garden would be most pleasing to the eye.

The author chose this location for her kitchen garden because it receives the most amount of sunlight of any spot in the yard, it's near a water spigot, is close to the kitchen window, and works well with the front yard aesthetics of her modern farmhouse home.

Above: This garden is on the southern side of the home, with limited morning and afternoon sunshine but lots of midday sun. Right: This garden is on the southern side of the fence and receives midday and afternoon sun.

should be based on the available sunlight; 20 percent on water accessibility; and the final 20 percent of the decision is split between convenience and aesthetics. So, we'll start with sunlight and then consider the other three aspects.

To look at each aspect of the formula, let's create a map of your property. You may just have a balcony and that's fine. Still, make a map. To start, draw your home and yard to scale on a piece of graph paper. Once you've drawn your property to scale, draw a compass to denote the cardinal directions as they relate to your home and yard. Now that you've determined where North and South are located, let's find the sunshine.

SUNLIGHT

Get as much sunlight on your kitchen garden as possible—that's the goal. Sounds simple, right? But getting hours and hours of light on your garden throughout the year is difficult, especially if you live in the city.

Even if you do see lots of sunlight in a certain spot during part of the year, it may only be like that for one season. Though it may seem that the sun is directly overhead most of the day, it's always shining on us from an angle. In the Northern Hemisphere, the sun is shining on us from the south, and in the Southern Hemisphere, it's the opposite. It's during the winter months that you'll realize this is the case. On the longest day of the year, the sun is nearly straight overhead but, on the shortest day of the year, it can be quite low on the horizon, depending on your longitude. And if there's a tall structure standing between your garden and the sun's leaning, your garden may only see a shadow for nearly half the year.

To avoid these shadows, place your garden on the other side of any tall structure

that would stand between your garden and the winter sunshine. In other words, if you're in the Northern Hemisphere, place the garden on the southern side of tall structures such as your home, a tree line, or fences. If you're in the Southern Hemisphere, place it on the north side. No matter what side you're on, most of us live in cities and tight quarters and, sometimes, the most light our garden can receive is significantly less than six hours.

If this is the case for you, there are loads of edible plants that will grow in just a few hours of sunlight. If the spot you've selected, or have available, receives less than four hours of sunlight per day in any season, you'll need to prioritize growing greens in that spot, such as herbs and lettuces. If it receives four to six hours of sun per day, you can grow root vegetables, and if it receives more than six hours of sunlight per day, you can grow leaves, roots, and plenty of fruit.

After marking the cardinal directions on your map, place a star in each spot of the yard that receives maximum sunlight throughout the year. Congratulations! You've just narrowed your location choices. Now, let's consider the second matter: water.

PLANT/SUNLIGHT NEEDS

Beans, Peas, Root Crops: 6 hours per day
Greens: 2 to 4 hours per day
Herbs: 4+ hours per day
Tomatoes, Peppers: 8+ hours per day

WATER SOURCE

After sunlight, the second item to prioritize for your kitchen garden is its proximity to a water source. Consistent water is key to your success, and we know rain can be unpredictable, so identify the source of available supplemental water before choosing the site for your kitchen garden.

You might be so excited about your garden that you're picturing yourself with your watering can, walking from plant to plant each morning before sunrise. Trust me: The watering chore, charming as it sounds, will feel like the chore that it is fairly quickly.

If possible, place your garden near a spigot, a rain barrel, or where it can easily connect to a formal irrigation system. If using a spigot, be certain you can attach either a hose or drip system from the water source to the garden area. If using a rain barrel, ensure that water can run from the barrel to the garden beds. And, finally, if you have a formal irrigation system in place, situate the garden in such a way that the lines can be brought into your garden bed with as little digging and repositioning as necessary.

Before moving on, mark all the spigots, rain barrels, or irrigation hookups in your yard on your map with a circle.

CONVENIENCE

The third consideration for your kitchen garden space is the convenience of each potential area. When I meet with clients, some want their kitchen garden hidden from the home—just in case it gets unruly. This is actually the way to ensure that very thing happens.

Because it is a kitchen garden, it makes sense to have it as close to your kitchen as possible. This way, you'll use it and tend it more frequently.

My first successful kitchen garden was right alongside the driveway. As a busy working mom, I was able to check up on the garden just by driving into the garage. I could quickly see if things were wilting, notice holes on the leaves, or note when things were ready to harvest (yay!). I'm fairly certain this proximity to our daily activities made all the difference in my kitchen garden success, and I'm sure it will do the same for you.

So, mark the most accessible spots in your landscape with a square.

The author surveys the garden of one of her clients, which is situated just outside the kitchen door, making it easy to harvest herbs and greens as a meal is being prepared.

This article is an adapted excerpt from **Kitchen Garden Revival: A Modern Guide to Creating a Stylish Small-Scale, Low-Maintenance Edible Garden** by Nicole Johnsey Burke with photographs by Eric Kelley, published by Cool Springs Press, 2020. Used with permission of the publisher.

This formal potager starts at the edge of the porch and connects with the lines of the home, making it look more integrated into the design of the original landscape.

AESTHETICS

Ever felt a little awkward? (Raises hand). Between wrangling four kids, dirt under my fingernails, and lots of moving, I tend to keep finding ways not to fit in. I'm okay with standing out as a person, but "awkward" is not the look we're going for with the kitchen garden. Instead, the goal is to "fit in" with the rest of the landscape. Don't get me wrong: The kitchen garden should (and will) stand out because of its beauty, but we don't want it to draw attention just because it doesn't fit in with the rest of the landscape. Here's how to avoid that situation.

First, look for natural spots where a garden could go. Possible locations include a side yard, along a fence, or as an extension of an existing structure, such as a deck or patio. Look for ways to connect your kitchen garden to the rest of the landscape by lining up or being near existing structures or plantings.

Second, look for areas where your garden could match some measurements of other pieces of your landscape. If the deck is a certain height, design the beds to measure the same. If the building comes out to a certain width, design the beds to come out to that width as well. By selecting existing elements in your landscape to match to the garden, you'll give your garden a sense of belonging.

Third, when you design your layout later, be sure to group elements within the kitchen garden. Don't just throw a box out there by itself. If the kitchen garden is going to stand out, be sure it has friends to stand alongside it. If you're just creating one box, add fruit trees, a birdbath, potted herbs, or something else to group alongside the garden.

Keep these three principles in mind and save your kitchen garden from that "one of these things is not like the other" scenario. Place a heart on the spaces on your map where a kitchen garden would fit well with the landscape or continue a line or design from your home or other existing structures.

With the site analysis completed, weigh all four considerations and select the top garden location choices. Keep each aspect in mind, sunlight being most important, water being essential, and then convenience and aesthetics. Choose your top three to four spots (if there are that many possibilities) and number each on the map.

Now, it's time to grab a measuring tape and determine how much growing space is available in each area. Measure the width and length of each potential garden space and mark them on your map.

Before you plan for a huge or compact garden, figure out how much you have to give your garden and how much you'd like your garden to give you. Your garden size is limited by space, time, and money and can be altered to fit your output desires. Once you've decided on these constraints, you can begin to determine the best size and shape for your kitchen garden.

Nicole Johnsey Burke is the owner and founder of the Rooted Garden, Inc., a kitchen garden design and consulting firm in Houston, and Gardenary, Inc., an online kitchen gardening resource. She currently lives northwest of Chicago.

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Adkins Arboretum: A Chesapeake Native Garden

by Mary Yee

MARYLAND'S Eastern Shore is a popular destination for locals and tourists who come to sample steamed blue crabs, see quaint lighthouses, relax on the beach, or go for a day of sailing, but the water is only part of its identity. This region sits on the eastern side of the Chesapeake Bay, an important ecosystem in the mid-Atlantic where the salty ocean water meets freshwater, creating an environment that supports a diversity of plants and wildlife. One place that stewards the natural landscape for all to enjoy is the Adkins Arboretum in the small rural town of Ridgely.

Opened in 1980, the 400-acre preserve is located within the much larger Tuckahoe State Park but is administered independently by the nonprofit Friends of Adkins Arboretum. "We are one of the few botanical institutions focused on the conservation and promotion of coastal plain flora," says Adkins Executive Director Ginna Tiernan. "Our collection features native plant communities in their successional stages of old fields, meadows, pine plantations, young hardwood forests, mature bottomland and upland forests, and non-tidal wetlands."

DEMONSTRATING SUSTAINABLE LANDSCAPING

At Adkins, Tiernan says, "the main attraction is nature itself." Much of the property was farmed through the first half of the 20th century. Since that time, restoring the land's natural habitats has been top priority. The cultivated displays, which are limited to the entrance median and the parking lot, demonstrate ecologically responsible landscaping practices.

More than half of the space of the median gardens at the drive-in entrance has been planted with a base of purple love grass *(Eragrostis spectabilis)*, a tough native that thrives in the location's poor, sandy soil and exposure to full sun. "The remaining area is interspersed with perennials that emerge seasonally to create 'color events'," says Tiernan. The grass itself offers multi-seasonal appeal, from its green blades in spring to pink summer flowerheads and reddish fall foliage.

The parking lot and its gardens are designed to serve as bioretention areas. Filtering substrate beneath the parking lot's permeable pavers controls sediment. Stormwater is channeled to the gardens rather than running off to pollute the Chesapeake Bay. The gardens contain more than 17,000 native species, such as blue mist flower *(Conoclinium coelestinum,* formerly *Eupatorium coelestinum)*, narrowleaf mountain mint *(Pycnanthemum tenuifolium)*, and soft rush *(Juncus effusus)*. Tiernan notes "visitors spend a good deal of time in the parking lot identifying plants and sighting birds, butterflies, damselflies, and dragonflies."

Above, left: A bridge provides a vantage point for viewing the plants and wildlife in the wetland. Above, right: The South Meadow Loop is one of several easy-to-walk trails.

PHOTOS: KELLEN MCCLUSKEY, COURTESY OF ADKINS ARBORETUM

HOW THE RECIPROCAL ADMISSIONS PROGRAM (RAP) WORKS

This American Horticultural Society program is designed to encourage people to visit gardens, arboreta, and conservatories while traveling. As a current member, you receive free admission and/or other special discounts at more than 330 sites throughout North America! Here's how to make the most of this member benefit:

■ View the current list of participating locations and the RAP benefits they offer at *www.ahsgardening.org/rapgardens*. This list is also published in a booklet. To order, visit *https://www.ahsgardening.org/gardening-programs/rap*.
■ Contact the garden to confirm the RAP benefits it offers. (Some sites may choose to enforce a 90-mile exclusion policy; if your zip code falls within that distance from the location, you would not receive the offered RAP benefits there.) Admission to special events may also be excluded.
■ Present your current membership card at the admissions counter or gift shop to receive the RAP benefit(s) offered by that garden. Each card will only admit the individual(s) listed on the card. In the case of a family, couple, or household membership card that does not list individual names, the garden must extend the benefit(s) to at least two members; it is at the garden's discretion to extend benefits to more than two individuals. Some gardens may require a photo ID.

POPULAR DESTINATIONS

A one-acre wetland greets visitors upon entering the arboretum. Once a farm pond, the wetland is now filled with native marsh species that have been planted, together with many that have volunteered. The Wetland Boardwalk leads visitors into a watery habitat for blue herons, turtles, frogs, and dragonflies. A bridge allows for crossing over to the Visitor's Center (which is currently closed due the pandemic).

Five miles of trails from a mile to three miles long provide for easy hikes through other parts of the preserve. A couple of trails takes visitors to the meadows, which provide plenty of opportunities for spotting birds, including eastern bluebirds and indigo buntings. The raised Meadow Platform features small amphitheater seating and is popular for picnicking, open-air painting, and other activities.

The mature forest is filled with many species of oak as well as tulip tree *(Liriodendron tulipifera)*, pawpaw *(Asimina triloba)*, and American beech *(Fagus grandifolia)*; some specimens are over a century old. Native azaleas bloom in the understory in spring. The Beech Overlook provides a view of a particularly grand specimen near Tuckahoe Creek, where beavers can sometimes be sighted.

Comprised mainly of big bluestem *(Andropogon gerardii)* and Indian grass *(Sorghastrum nutans)*, the South Meadow—with the Visitor's Center in the background—shows off its fall colors.

Additional Information

Adkins Arboretum
12610 Eveland Rd., Ridgely, MD 21600
(410) 634-2847
www.adkinsarboretum.org

■ Hours: Grounds are open year round dawn to dusk. Visitor's Center is currently closed due to the pandemic.
■ Admission: $5 (adults); $2 (ages 6–18); free (under 6).
■ RAP benefits: Free admission.

Families with young kids will enjoy the stone labyrinth, passionflower teepee, and mud kitchen station for making mud pies in Emily's Play Garden. The garden is conveniently located near a pen for a small herd of resident goats, which earn their keep by eating invasive weeds.

BUILDING A LOVE FOR NATURE

Nature education for both adults and children is offered year round, ranging from guided bird migration walks to workshops on invasive plant identification. The popular spring and fall plant sales provide a wide selection of native species for home gardens. In past years, a fall beer garden with live music has attracted a diverse demographic of all ages, and the Fairyfest has been a favorite with families with young children. For now, most events have been postponed or gone virtual.

History buffs will appreciate Adkins as one of the stops on the Harriet Tubman Underground Railroad Byway. A self-guided audio tour interprets the role the Eastern Shore's natural landscape played in the flight of African Americans from slavery to freedom in the 19th century. Although the tour is currently unavailable because the Visitor's Center is closed, plans are underway to make it accessible virtually.

About 20,000 visitors come to Adkins each year to hike, bike, and simply get away from city life. Land steward professionals and school groups come to learn about the ecological importance of native plants in the coastal plain. "We meet people at whatever level of interest they have in nature and try to build on that," says Tiernan. In short, Adkins has something for everyone.

Mary Yee is art director and managing editor of The American Gardener.

Successful Composting

by Scott Aker

When it comes to composting, we know that organic matter in a compost pile will inevitably decay. However, there are many factors involved in the process that we can manipulate to hasten it and also end up with a product that benefits our gardens.

TEMPERATURE IS KEY

The chief parameter in composting is temperature. The organisms that cause things to decay most quickly need warmth. Their biological activity also generates heat—temperatures of 140 to 160 degrees Fahrenheit are the norm, which are high enough to kill weed seeds, disease spores, and pests present in the composted materials. The temperature falls when there is less undecayed material for microorganisms to use for food, and with the drop in temperature, a different group of fungi and bacteria that are very beneficial to soil biology colonize the compost and continue the decay process at a much slower pace.

If you can't attain a high temperature in your composting operation, don't despair. Your compost may take more time to decay and may initially contain weed seeds, pests, and harbor pathogens, but these problems usually diminish over time if you allow your compost to rest a year or more. As decay advances, beneficial fungi and bacteria will colonize the material and displace harmful fungi and bacteria that cause disease. Most weed seeds will germinate and die, deprived of contact with soil.

SIZE MATTERS

Size matters in two ways. The size of the particles of the material you are trying to compost must be small enough to create a large amount of surface area per unit of volume. All of the decay organisms live on the surface of materials, so there must be enough space for them, particularly if

This three-bin system allows all stages of composting to occur at once, from (left to right) raw material to active decay and finished product.

JUDYWHITE, GARDENPHOTOS.COM

Bacteria that promote quick decay in a compost pile generate a lot of heat. A soil thermometer shows this pile is over 130 degrees Fahrenheit.

MARK TURNER

you are using a hot composting method. A large chunk of wood may take years to decay, whereas sawdust may break down in a few weeks in the right conditions.

The total volume of materials you have on hand also matters. Thermodynamics dictate that you must have a favorable surface-to-mass ratio to build up heat in a compost pile, even if all the other parameters are ideal. If your pile is too small, it will lose heat faster than it can generate it. As a rule, you need at least a cubic yard of chopped organic waste to generate the high temperatures of a hot composting process.

MIND THE MOISTURE, BUT DON'T WORRY ABOUT NITROGEN

Decay organisms need water. Without it, decay won't even start. If your compost materials are dry, add water to moisten them. Everything should be damp, but you should not be able to squeeze water out of the mixed ingredients. Soggy materials don't have enough oxygen to support the organisms that cause rapid decay. Instead, the oxygen-deficient environment favors other decay organisms that produce high levels of sulfides, alcohol, and acetic acid. This type of process, called anaerobic decay, causes unpleasant odors and its byproducts are harmful to plants.

Many experts tout recipes that call for specific ratios of woody materials such as autumn leaves and wood chips to green materials such as lawn clippings and kitchen waste. The idea is that nitrogen in the green materials is needed to jump start the decay process. In reality, woody materials will decay on their own; the small amount of nitrogen present in them is recycled every time decay organisms die and serve as food for other decay organisms.

If you do have a lot of materials with high-moisture content, it is important to incorporate enough dry, woody materials in your pile to overcome the wetness to keep the mixture fluffy and well aerated throughout the composting process. Don't worry about rain making your compost too wet. The high temperatures of the composting process will cause excess moisture to evaporate from the surface, and much of the rainfall will run off the surface of the pile anyway. Be sure to locate your pile at a high point in the garden to promote drainage.

MIX IT UP

As decay progresses, the volume of your pile will shrink, and materials in it may get compacted, thus reducing the oxygen level for the decay organisms. Turn or fluff up the pile with a garden fork to increase oxygen flow. Initially, you should see a temperature spike when you fluff everything up. When turning the pile does not cause it to heat up, it's an indication that decay is substantially complete and the compost is ready for use.

STORING AND USING COMPOST

Compost can be tilled into soil, spread as a mulch, or added to potting soil. Store it covered with a tarp to prevent it from getting too soggy or place it in large storage bins in a garage or garden shed at any temperature. Remember the compost is full of living beneficial microorganisms, so be sure to keep it moist and don't store it in a plastic bag.

Scott Aker is head of horticulture and education at the U.S. National Arboretum in Washington, D.C.

Gardening Q&A with Scott Aker

SPRUCE HAS ABNORMAL GROWTH

Part of my dwarf Alberta spruce *(Picea glauca* 'Conica') looks weird—more like a regular spruce. It is growing faster than the rest of the plant. Should I prune this part out?

Yes, and be sure to remove all of the abnormal growth. 'Conica' is a naturally occurring dwarf form of white spruce. Your spruce is trying to revert to its non-dwarf form. If you don't remove the new growth, it will quickly outpace and overwhelm the rest of the plant.

CONTROLLING BAGWORMS

My neighbor lost an arborvitae to bagworms this year. He hasn't cut the shrub down, and it is still full of the little conelike bags that the bagworms made. I have an arborvitae that I'd like to protect. Is there something I can apply to it to protect it now?

You can pluck all the bags off your neighbor's arborvitae—with permission, of course. These structures made by female bagworms are full of eggs. These will hatch in early summer next year. The tiny caterpillars spin a silken strand and float on the breeze to nearby plants. If you can remove all of them from your neighbor's shrub and destroy them, you will prevent an infestation on your plant. If removing them is not an option, start looking for the tiny hatchlings next June by checking your arborvitae every week. You can spray it with a pesticide containing *Bacillus thuringiensis* or spinosad when the young caterpillars first appear; applying pesticides now will not protect your tree. —S.A.

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

Jerusalem Artichoke

by Ira Wallace

AN EASY to grow and resilient garden crop, Jerusalem artichoke *(Helianthus tuberosus*, USDA Hardiness Zones 4–9), also known as sunchokes, is closely related to sunflowers. It is a delicious but often overlooked perennial winter root crop originally cultivated by the native peoples of central North America. It was introduced to Europe in the 1600s by Samuel de Champlain, and now many varieties are grown across the temperate world, mostly maintained by gardeners and available through heirloom garden groups or specialty vendors online. In addition to its edible roots, sunchoke produces a bonus crop of bright, sunny yellow flowers that are a late season boon for pollinators and other beneficial insects.

The crisp white flesh of the roots gives a hint of artichoke hearts and water chestnuts when served raw in salads, or pickled as is traditional in Pennsylvania Dutch country and the American Southeast. The tubers can also be cooked. Whether boiled, baked or fried, they are sweet and nutty.

Because of their high inulin content, the tubers can serve as a low-carb substitute for potatoes. However, this healthy and probiotic inulin produces a lot of intestinal gas in many people unless the roots are properly prepared. Fortunately, when the tubers are stored, or when cooked in an acid like lemon juice or vinegar, or pickled, the inulin converts to other starches, thus reducing the unpleasant side effects.

GROWING GUIDELINES AND TIPS

Jerusalem artichoke tolerates a wide range of soil conditions but yields are best in a loose, well-aerated soil with a near neutral pH (6.5 to 7.2). It doesn't tolerate heavy waterlogged clay soils. Get a soil test if you haven't had one lately and apply lime if needed. Add compost or other organic matter to improve drainage and to make harvesting the roots easier. Select your planting location carefully since, once established, sunchokes can be challenging to remove. Consider planting in a separate bed away from the rest of the garden or within a perimeter that can be mowed. Plants grow eight to 12 feet tall under good conditions, so make sure they won't be shading the rest of your garden.

Top: The tubers of Jerusalem artichoke can be eaten raw or cooked. Above: Plants grow tall and produce yellow flowers in fall.

In late fall or early spring, plant Jerusalem artichoke using small, healthy tubers or pieces of tubers at least two ounces in size, with two or three buds each. Cover with two to four inches of soil, and space them 12 to 24 inches apart in rows 18 to 36 inches apart. Wide spacing makes for larger individual tubers.

Hilling the plants and mulching them when 18 inches or taller controls weeds, conserves moisture, and concentrates tuber production for easier harvest later. Attention to watering (one inch per week), especially during tuber formation in late August and early September, also makes for larger tubers. However, sun-

NANCY J. ONDRA (2)

Tubers are best left in the garden and harvested as needed from fall to spring.

choke is forgiving; most gardeners report adequate harvest with little attention to their plants.

In windy areas and smaller gardens, cut plants down to four feet or so in July to make for bushier, more compact growth. This may delay flowering and encourage more tuber production in September and October.

PEST AND DISEASES

Jerusalem artichoke has few pests and diseases. Since tubers store best in the ground, varmints such as moles, voles, and other tunneling creatures have been the only real problem I've experienced and even then, the remaining harvest was plenty.

RECOMMENDED VARIETIES

The following readily available selected varieties tend to be less knobby and easier to clean. All have bright yellow daisylike flowers in late summer to early fall.

Stampede An extra-early strain with large, white-fleshed tubers that store well. Crisp and nutty eaten raw; smooth and creamy steamed, roasted, or boiled.

Fuseau Matures later than Stampede. A long, smooth, white-fleshed type that is easy to peel. This variety is often recommended as a traditional Native American food to help control diabetes.

Clearwater A round, smooth tuber with no knobs that was found as a seedling near Clearwater, Maine. Exceptionally mild, sweet flavor. Yields are good and this variety may be easier for small gardens or large containers because plants spread more slowly than others.

ENJOYING THE HARVEST

Tubers have the best flavor when dug after the first killing frost. Continue harvesting through the winter and spring when the ground is soft enough to dig. Because of more favorable temperatures and levels of humidity, tubers store better in the ground than out of it.

For storage out of the ground, save tubers in perforated plastic bags in a cold, damp root cellar or basement. At 32 degrees Fahrenheit and with high humidity, tubers may store for two to four months. Sunchokes stored in the refrigerator in a perforated plastic bag will keep for about 10 days before starting to shrivel up. Hence, tubers are best harvested as needed.

The sweetest, and least gas-producing, tubers are harvested in late winter. In the 19th century, this was the traditional time to eat Jerusalem artichoke. Gently simmering tubers for 10 to 15 minutes in just enough lemon juice before adding to recipes also converts inulin to other sugars while adding a nice flavor note and allowing for easy peeling without using a knife.

Pickled Jerusalem artichoke tubers, either lacto-fermented or in vinegar, are my favorite way to store and enjoy them year-round. There are lots of recipes online for fermented and pickled tubers, as well as other ways to prepare them, from including them in soups, mashing them, and baking them into crispy chips.

Sources

Fedco Bulbs, Clinton, ME. *www.FedcoSeeds.com/bulbs.*
Hudson Valley Seed, Accord, NY. *https://HudsonValleySeed.com.*
Johnny's Selected Seeds, Winslow, ME. *www.JohnnySeeds.com.*
Okios Tree Crops, Kalamazoo, MI. *https://OikosTreeCrops.com.*

PLANTING BASICS

Getting Started Jerusalem artichokes grow best in loose, well-drained, neutral to slightly alkaline soil. If your soil is acidic, add lime to raise pH. Add plenty of organic matter for good drainage and best production.

Planting When planting, select a safe permanent location since this North American native may aggressively spread from small pieces left behind after harvest. In the late fall or early spring, plant small tubers or golf ball-size pieces with three or four "eyes" apiece. Plant these two to four inches deep, 12 to 20 inches apart in rows two to three feet apart. If your tubers are already sprouting, point the sprouts upwards and cover them gently with soil.

To produce the largest tubers, maintain even moisture (one inch per week), hill soil at the base of the tall plants, and keep them weeded and mulched.

Days to Maturity Harvest after the first killing frost in fall.

Ira Wallace is a worker/owner of the cooperative Southern Exposure Seed Exchange, co-organizer of the Heritage Harvest Festival at Monticello, and author of six books including The Timber Press Guide to Vegetable Gardening *and* Grow Great Vegetables in Virginia.

CATRIONA T. ERLER

Horticultural News and Research Important to American Gardeners

American Daffodil Society member favorites include, left to right, fragrant 'Sweetness', double 'Tahiti', and miniature 'Tete-a-Tete'.

AMERICAN DAFFODIL SOCIETY MEMBERS NAME THEIR FAVORITES

Last year, the American Daffodil Society (ADS) polled its members for their favorite varieties, asking them to choose their 25 top choices. After the votes were counted, the top five selections were: 'Rapture', 'Sweetness', 'Fragrant Rose', 'Tahiti', and 'Tete-a-Tete'. 'Rapture' was the runaway favorite and is mid-sized early bloomer with reflexed petals. 'Sweetness' is a mid-season exceptionally fragrant daffodil with flowers held in clusters of two to three blossoms. A late season, deeply fragrant selection is 'Fragrant Rose' with its pure white petals and blush rose center. 'Tahiti' is a dramatic early to mid-season flower with doubled petals that have a dark orange center. Lastly, 'Tete-a-Tete' is an early miniature bloomer prized for indoor forcing.

"Many daffodil enthusiasts grow thousands of varieties, so this was a challenging question," says Janet G. Hickman, who is the ADS First Vice President. "This topic was chosen because of awareness that gardening space is limited for many, especially young gardeners but also older gardeners facing downsizing." Some ADS members expressed surprise that almost all of the varieties chosen were older, easily available cultivars. "When pressed to choose so few, daffodil specialists said they'd want varieties that were proven reliable growers," observes Hickman.

According to Hickman, the qualities that make an outstanding daffodil include "symmetrical form, clear color, and a strong stem holding the flower up well. It is healthy and resistant to rot, increases gradually to form a nice clump but not so quickly that it crowds itself out." The ADS's *DaffLibrary.org* site has the complete list of responses to the 25 daffodil project if you search via "25 daffodils." Consider adding these tried-and-true favorites this fall for a lovely, easy spring show.

MYSTERY SEEDS BY MAIL

In mid- to late summer, people across the country and overseas reported receiving unsolicited packages of seeds, purportedly shipped from China, in their mailboxes. The mystery seeds caused a brief media furor because they seemed to be yet another strange occurrence in a year filled with bizarre news headlines (remember the "murder hornets" media frenzy in May?). The U.S. Department of Agriculture's (USDA's) Animal and Plant Health Inspection Service (APHIS) is working with the Department of Homeland Security's Customs and Border Protection, other federal agencies, and state departments of agriculture to investigate. Out of a concern that the seeds might be from noxious weeds or otherwise prohibited plants, the USDA tested some of the seeds that have been turned in by state agencies. To date, they have identified at least 14 different—and mostly common—plant types, including cabbage, mustard, sage, lavender, morning glory, roses, and hibiscus.

The USDA believes these mailings may be part of what is known as a "brushing scam," where people receive unsolicited items from a company that then posts false customer reviews to boost sales of their products. The USDA urges anyone who receives suspicious unsolicited seeds to hold onto them, along with the package and the mailing label. Visit *www.aphis.usda.gov/aphis/ourfocus/planthealth/news-info/unsolicited-seeds* for more information.

IBULB.ORG (3)

AMERICAN BEAUTYBERRY COMPOUND OFFERS BOOST TO ANTIBIOTICS

American beautyberry *(Callicarpa americana)* is known for its showy clusters of bright purple berries that ripen in late summer to early autumn. Now this shrub native to the southern United States is also being investigated for its potential medicinal qualities. In combination with the antibiotic oxacillin, a compound found in the plant's leaves has been shown to successfully treat a drug-resistant strain of bacterial infection known as Methicillin-resistant *Staphylococcus aureus* (MRSA).

Researchers at Emory University have found the leaves of American beautyberry contain medicinally useful compounds.

"We decided to investigate the chemical properties of the American beautyberry because it was an important medicinal plant for Native Americans," says Cassandra Quave, an assistant professor in Emory University's Center for the Study of Human Health. A number of Native American tribes used American beautyberry to treat ailments ranging from malarial fevers to rheumatism and dermatitis. Earlier research indicated compounds from beautyberry leaves were effective in repelling insects such as ticks and mosquitoes. The compound Quave's team isolated from beautyberry leaves modestly inhibited MRSA on its own, but combined with an antibiotic like oxacillin, proved effective at eliminating the bacteria. Quave was co-senior author of the study, published in the *American Chemical Society's Infectious Diseases* publication. For more on this study, visit *https://pubs.acs.org/doi/10.1021/acsinfecdis.0c00307*.

YALE SCIENTISTS SOLVE THORNY ISSUE

Plants developed thorns, prickles, or spines to help protect themselves from hungry herbivores. Roses, for example, have prickles which grow from the epidermis and act like modified hairs. The spines on cacti are modified leaves. Honey locusts, hawthorns, and citrus trees, among others, have developed true thorns, which arise from shoots.

Vivian Irish, the Eaton Professor of Molecular, Cellular and Developmental Biology at Yale University, got interested in

CHRIS EVANS, UNIVERSITY OF ILLINOIS, WWW.BUGWOOD.ORG

how thorns evolved, especially in citrus trees. Irish and her Yale research team first showed that in citrus plants thorns arise from the plants' stem cells. Unlike typical stem cells, which continue to divide, thorn stem cells undergo what Irish describes as "a programmed arrest." The scientists found that two chemical regulators gradually shut down stem cell activity in the developing thorn, causing it to taper off into a sharp tip. When the researches genetically eliminated the two regulators, the citrus plants produced branches instead of thorns. Among the potential benefits of this research, Irish notes, is the development of citrus trees that have more fruit-bearing branches and pose less danger to laborers. For more on this study, which was published in the June 18 issue of *Current Biology*, visit *www.cell.com/current-biology/fulltext/S0960-9822(20)30755-7*.

URBAN TREES OFFER IMPORTANT BIRD HABITAT

A recent study by Eric Wood, professor of ecology at California State University, examined the species and location of more than 7,500 municipally owned street trees in greater Los Angeles. Wood and colleague Sevan Esaian reported in the journal *Ecological Applications* that affluent communities have twice as many—and larger, healthier, and more diverse—street trees than lower-income areas. In addition, the researchers found nearly five times as many birds forage in those wealthier neighborhoods. Wood and Esaian's find-

PEOPLE AND PLACES IN THE NEWS

GANNA WALSKA LOTUSLAND NAMES NEW EXECUTIVE DIRECTOR

The Board of Trustees of Ganna Walska Lotusland has tapped Rebecca Anderson as the botanic garden's next Executive Director. After four years as the Santa Barbara, California, garden's director of development, Anderson has been serving as Lotusland's interim Executive Director since December 2019. She has 20 years' experience as an executive leader in local nonprofits. Before joining Lotusland, Anderson served as Director of Advancement at Midland School and as Director of Development for the Scholarship Foundation of Santa Barbara. She was the Manager of Annual Giving at Cottage Health System and was a member of the initial Emerging Leaders Program sponsored by the Santa Barbara Foundation in tandem with Leading from Within. An active community volunteer, Anderson currently serves on the Board of Directors of Leading from Within. She served as president of the board of the Association of Fundraising Professionals of Santa Barbara/Ventura Counties, and is a past Trustee of CALM, the Association of Fundraising Professionals and Santa Barbara Middle School. Anderson was honored as the 2013 "Fundraiser of the Year" by the regional chapter of the Association of Fundraising Professionals.

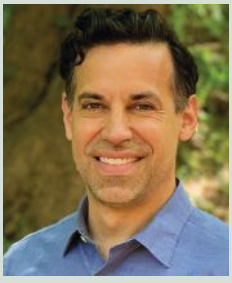
F. TODD LASSEIGNE NAMED EXECUTIVE DIRECTOR AT BELLINGRATH

F. Todd Lasseigne has been selected as the next executive director of Bellingrath Gardens and Home in Theodore, Alabama, where he will succeed longtime leader William E. Barrick, who retired in 2019. Lasseigne currently serves as President and CEO of Tulsa Botanic Garden in Osage County, Oklahoma, a position he has held since 2011. A highly respected horticulturist and public garden leader, Lasseigne has served as the chair of the Plant Collections Professional Section for the American Public Gardens Association from 2008 to 2011, is active in numerous plant societies, and helped organize professional meetings for the Maple Society and the American Public Gardens Association. He has participated in plant-hunting expeditions in China, the Republic of Georgia, Mexico, and throughout the United States. Before taking his current position at the Tulsa Botanic Garden, Lasseigne was the founding executive director of the Paul J. Ciener Botanical Garden in Kernersville, North Carolina, and assistant director of the JC Raulston Arboretum at North Carolina State University in Raleigh, North Carolina.

BOWMAN'S HILL WILDFLOWER PRESERVE SELECTS NEW EXECUTIVE DIRECTOR

Peter Couchman joined Bowman's Hill Wildflower Preserve as its new director in June. Prior to joining the Preserve, located in New Hope, Pennsylvania, Couchman served as the first executive director of High Glen Gardens in Frederick, Maryland, for seven years, following two years as its head gardener. Besides managing High Glen's 10 acres of formal gardens, he oversaw the restoration of a large wetland and upland meadow, as well as a woodland reforestation project. A proven leader and fundraiser for dynamic organizations in transition, Couchman also embraces the Preserve's mission regarding the importance of native plants.

Horticulture is a second career for Couchman, who started out as a professional opera singer. Eventually, the baritone made solo appearances at New York's Lincoln Center and Carnegie Hall, Boston's Symphony Hall and Paris' Notre Dame Cathedral. "I was good at opera, but I eventually realized I just wasn't passionate about it," he explains. "When I asked myself, 'What am I passionate about?,' I kept coming back to plants and the environment." He launched his current career by earning a diploma from the School of Professional Horticulture of the New York Botanical Garden in New York City.



ings demonstrate that urban street trees offer important habitat and an addition of just a few more trees correlate with a substantial increase in bird numbers.

To understand street trees' habitat value and their distribution around Los Angeles, Wood and Esaian walked the neighborhoods during the two winters from 2016 to 2018. They recorded the size and species of the trees they encountered, the birds observed, and which trees they were in. Their observations confirmed that birds prefer California-native street trees. In affluent neighborhoods, native trees covered 10 times as much area as they did in lower-income areas. Two native species, the coast live oak and California sycamore, were especially attractive, while birds almost wholly ignored 80 percent of the many non-native tree species studied. "I went into the study with this hypothesis that natives were going to be the best," says Woods. "Still, it's not necessarily what we found." Two non-native trees, Chinese elm and American sweetgum (which is native to eastern North America), were also favorites among foraging birds.

This study also reflected the complex circumstances around successful street tree planting and maintenance. Most street trees need constant care and regular watering in the first two or three years. In less affluent neighborhoods, the local government may not have the resources or staff to provide that crucial and timely maintenance.

As global temperatures rise, the disparity in tree shade may be an additional burden for low-income communities in sunny California, according to John Rowden, Audubon's senior director for bird-friendly communities. "As the city and landscape get hotter, they'll be disproportionately affected," he says.

Wood's study recommends increased funding and education for street tree plantings, focusing on birds as indicators of urban forest health, and using tools such as Audubon's native plants database to identify the most beneficial tree species for different regions.

For more on this study, visit *https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/eap.2149*.

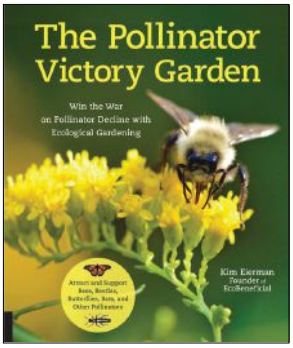
Written by Associate Editor Heather Prince.

Recommendations for Your Gardening Library

The Pollinator Victory Garden: Win the War on Pollinator Decline with Ecological Gardening

Kim Eierman. Quarry Books, Beverly, MA. 160 pages. Publisher's price, paperback: $26.99.

HAVING WORKED as a garden designer for 15 years, I'm aware of the importance of native plants, but communicating this to my clients is not always easy. Kim Eierman's book has given me the base knowledge and language I need to convey the message effectively—as well as inspiration to encourage greater advocacy. As she notes, "You don't have to be an entomologist to realize that pollinators are in trouble, and you don't have to be a professional landscaper or horticulturist to do something about it."



The Pollinator Victory Garden increases our horticultural vocabulary by detailing the close-knit relationships of pollinators and plants. I learned that the *buzz pollination* techniques of native bumblebees on blueberries "creates twice as much fruit as honeybee pollinations." I discovered that *puddling* describes a behavior of butterflies (mostly male) gathering salts from wet, stony ground and may help increase viability of future caterpillars. And *floral balance* is having a wide diversity of plants in sufficient quantities to support the pollen and nectar needs of pollinators so they may successfully reproduce.

Basic inventory charts in this well-researched guide consider succession and overlap of blooms; what types of flowers attract which species of pollinator; and which trees and shrubs are valuable for supporting pollinator reproduction and nectaring. We also learn how to make a sample host plant checklist for specific butterflies. While butterflies usually get the most attention, the author reminds us to not to forget nocturnal pollinators such as moths. The appendix includes lots of references for furthering our knowledge about gardening for pollinators.

Habitat considerations must be integral in designing gardens that support our native pollinators, and all of us can help. Where space is limited, even growing a native plant in a pot will add to the resources they need. As Eierman puts it, "A native flower is never more beautiful than when it's graced by a nectaring pollinator."

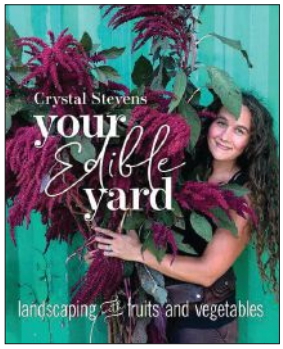
—Julia Bunn

Julia Bunn is the owner of the Spirited Gardener. An eco-functional landscape designer who is passionate about managing water with rain gardens, she is based in Evanston, Illinois.

Your Edible Yard: Landscaping with Fruits and Vegetables

Crystal Stevens. New Society Publishers, Gabriola Island, BC, Canada. 288 pages. Publisher's price, paperback: $34.99.

IN THE 1940s, Sir Albert Howard, the father of organic gardening, said, "Agriculture is an ecological act." In the face of our current climate crisis, these words ring more true than ever, and the permaculture movement, which began in the 1970s, has been picking up steam. Permaculture is based on a holistic approach to land interaction that stabilizes communities and their cultures as well as sustains the environment. In *Your Edible Yard*, author Crystal Stevens, a permaculture proponent, challenges us: "Imagine if every home could have a front and backyard thriving with edibles and medicinals."



Towards this end, Stevens seeks to teach gardeners how to achieve a harmonious relationship with the land and community by using the example of her 10-acre farm, Flourish Farm, in Godfrey, Illinois, which she describes as "a small-scale, diversified farm that integrates permaculture ethics and principles, regenerative farming practices, water management strategies, and increased biodiversity."

A large, well-developed food forest that she has established on the farm serves as the resource that fills the pages of her book with photographs, drawings, and information. She covers everything you need to develop your own permaculture yard. Start with using organic gardening and composting methods to build and maintain a foundation of healthy soil. Proceed to the meaty section on permaculture, which covers the diversity of suitable plants and designs for maximum yield. Planning an edible yard will happily take a while with so many ideas and examples to ponder. The book includes suggestions for how to build a sense of community through seed swaps, crop sharing, and plant sales.

Finally, you will come upon the recipes! There are pages of enticing, mostly vegan recipes showing you how to use and preserve your food harvest. Also included are pages of medicinal recipes using herbs such as echinacea, greater plantain, dandelions, and more. This book is a good guide for beginners as well as seasoned gardeners.

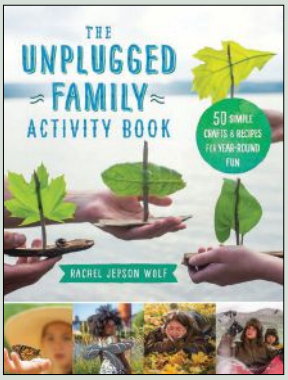
—Victoria Nowicki

Victoria Nowicki is an award-winning organic gardener who runs a seed-lending library. She and her husband, Ron, have cared for an edible yard in Downers Grove, Illinois, for 40 years.

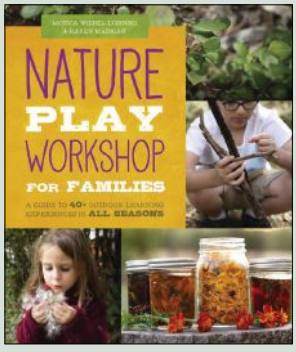
GARDENER'S BOOKS: GETTING KIDS OUTSIDE

NOW, MORE THAN ever before, it's important (imperative even) for kids to spend time outdoors, enjoying wide open spaces and fresh air. For parents, caregivers, and educators trying to coax children away from the blue glow of their digital devices, curtail the choruses of "I'm bored," or cultivate a deeper appreciation for the environment, these two books are packed with ideas for year-round fun and learning in the natural world.

The Unplugged Family Activity Book (Fair Winds Press, 2020, $22.99). Tapping into expertise in parenting, homeschooling, and "unplugged imperfection" author Rachel Jepson Wolf reminds us that there is life beyond the screen. Her book is filled with creative ideas that invite the whole family to connect with each other and to the natural world. Tried-and-true activities such as giant bubble wands and homemade play dough are accompanied by newcomers like lilac soda syrup and night vision flashlights. Comprehensive materials lists, clear instructions, and time allotment projections let users know exactly what they are getting into. Though some activities—like bark and leaf boats and pinecone bird feeders—are great for the independent adventurer, most require adult assistance—a subtle hint to slow down, unplug, and enjoy nature's gifts together.



Nature Play Workshop for Families (Quarry Books, 2020, $22.99). With minimal overlap of activities (Can birds ever have too many pinecone feeders?), Monica Wiedel-Lubinski and Karen Madigan share even more ideas for outdoor adventure in this book. With decades of experience in nature-based education, the authors take a slightly more academic approach here, which allows for a deeper exploration of seasonal themes. To learn about hummingbirds, for example, start by observing how they move, what they eat, and where they go. Make a DIY hummingbird feeder and simple syrup, then observe and note patterns for extended learning. There is something for every type of learner in this book—playful, observant, tactile, inquisitive, and artistic—and wisdom from seasoned educators on the nuts and bolts of outdoor learning.



—Katherine Somerville
Associate Manager of Programs, American Horticultural Society

Horticultural Events from Around the Country

Please note: The events here were scheduled at the time this magazine went to press, but be sure to check event websites for the latest information on openings, postponements, and cancellations.

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.ahsgardening.org/rap*.

NORTHEAST

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

RAP SEPT. 26. **Seed Saving.** Workshop. Stockbridge, MA. *www.berkshirebotanical.org.*

RAP OCT. 3. **Fall Gardening Symposium.** Sonnenberg Gardens & Mansion State Historic Park. Canandaigua, NY. *www.sonnenberg.org.*

RAP OCT. 3. **The Herbs of Halloween.** Lecture. Landis Arboretum. Esperance, NY. *www.landisarboretum.org.*

RAP OCT. 7. **The Colors of Autumn.** Floral workshop. Highfield Hall & Gardens. Falmouth, MA. *https://highfieldhallandgardens.org.*

RAP OCT. 10. **Fall Foraging.** Workshop. Merryspring Nature Center. Camden, ME. *www.merryspring.org.*

RAP OCT. 17. **Grow Your Own Edible Fungal Garden.** Workshop. Mountain Top Arboretum. Tannersville, NY. *www.mtarboretum.org.*

RAP OCT. 24. **Buried Treasures—The Fascinating World of Bulbs.** Class. Stonecrop Gardens. Cold Spring, NY. *ww.stonecrop.org.*

MID-ATLANTIC

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

RAP SEPT. 29. **Herb Basics.** Class. Norfolk Botanical Garden. Norfolk, VA. *https://norfolkbotanicalgarden.org.*

RAP OCT. 16–24. **Pumpkin Glow.** Halloween-themed pumpkin display. Hershey Gardens. Hershey, PA. *www.hersheygardens.org.*

RAP NOV. 14. **2020 Tree Symposium.** The Frelinghuysen Arboretum. Morris Township, NJ. *www.arboretumfriends.org.*

SOUTHEAST

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

RAP THROUGH NOV. 1. **Alice's Wonderland Reimagined.** Topiary and sculpture display. Atlanta Botanical Garden. Atlanta, GA. *https://atlantabg.org.*

RAP SEPT. 7–OCT. 31. **Festifall.** Scarecrow and pumpkin displays, nature hikes, and other activities. Huntsville Botanical Garden. Huntsville, AL. *https://hsvbg.org.*

RAP OCT. 1–31. **Scarecrows in the Garden.** Display and contest. Dothan Area Botanical Gardens. Dothan, AL. *www.dabg.com.*

RAP OCT. 2 & 3. **Fall Plant Sale.** Memphis Botanic Garden. Memphis, TN. *www.memphisbotanicgarden.com.*

RAP OCT. 22. **Fall Tree Walk.** Boone County Arboretum. Union, KY. *https://bcarboretum.org.*

NORTH CENTRAL

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

RAP SEPT. 12–OCT. 31. **Scarecrow Stroll.** Display. Cedar Valley Arboretum & Botanic Gardens at Hawkeye Community College. Waterloo, IA. *www.cedarvalleyarboretum.org.*

RAP OCT. 7. **Doug Tallamy: Nature's Best Hope.** Speaker series lecture. Chicago Cultural Center Preston Bradley Hall. Lurie Garden. *www.luriegarden.org.*

RAP OCT. 9–11. **Fall Bulb Festival.** Chicago Botanic Garden. Glencoe, IL. *www.chicagobotanic.org.*

RAP OCT. 15. **Plant Walk: Fall Color.** Reiman Gardens–Iowa State University. Ames, IA. *www.reimangardens.com.*

SOUTH CENTRAL

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

RAP SEPT. 19–NOV. 1. **Autumn at the Arboretum: The Art of the Pumpkin.** Fall festival. Dallas Arboretum and Botanical Garden. Dallas, TX. *www.dallasarboretum.org*

RAP OCT. 3 & 10. **Compost and Compost Tea.** Class. Botanical Research Institute of Texas. Fort Worth, TX. *www.brit.org.* (Virtual event)

RAP OCT. 3, 10, 17, 24 & 31. **Corn Maze.** Family-friendly farm activities. LSU AgCenter Botanic Gardens at Burden. Baton Rouge, LA. *www.lsu.edu/botanic-gardens.*

RAP OCT. 10. **Fall Festival.** The East Texas Arboretum & Botanical Society. Athens, TX. *www.easttexasarboretum.org.*

RAP OCT. 31. **Guided Walking Tour.** Myriad Botanical Gardens. Oklahoma City, OK. *https://calendar.oklahomacitybotanicalgardens.com.*

SOUTHWEST

AZ, NM, CO, UT

RAP OCT. 3. **Putting Your Rose Garden to Bed**. Class. Denver Botanic Gardens. Denver, CO. *www.botanicgardens.org.*

RAP OCT. 10. **Fall Bonsai Show.** Bonsai

COURTESY OF DOTHAN AREA BOTANICAL GARDENS

Club of Utah. Red Butte Garden. The University of Utah. Salt Lake City, UT. *www.redbuttegarden.org*

RAP OCT. 15. **Bonsai Workshop.** Denver Botanic Gardens. Denver, CO. *www.botanicgardens.org.*

RAP NOV. 7 & 8. **Fall Orchid Show.** Utah Orchid Society. Red Butte Garden. The University of Utah. Salt Lake City, UT. *www.redbuttegarden.org*

NORTHWEST

AK, ID, MT, OR, WA, WY

RAP OCT. 2–4. **Fall Harvest Festival.** Idaho Botanical Garden. Boise, ID. *https://idahobotanicalgarden.org.*

RAP OCT. 18. **Mini-Habitat Living Centerpiece.** Class. Bellevue Botanical Garden. Bellevue, WA. *https://bellevuebotanical.org.*

RAP OCT. 25. **Mushroom Festival.** Mount Pisgah Arboretum. Eugene, OR. *https://mountpisgaharboretum.com.*

WEST COAST

CA, NV, HI

RAP OCT. 3. **Fall Plant Sale.** Turtle Bay Exploration Park. Redding, CA. *www.turtlebay.org.*

RAP OCT. 10. **Plant Sale.** UC Santa Cruz. Santa Cruz, CA. *https://arboretum.ucsc.edu*

RAP OCT. 10. **Basics of a Water Smart Landscape.** Online class. Springs Preserve Botanical Garden. Las Vegas, NV. *www.springspreserve.org.*

RAP OCT. 17. **Nature Therapy.** Forest bathing class. The Water Conservation Garden. El Cajon, CA. *https://thegarden.org.*

RAP NOV. 1. **Free Family Bird Walk.** Pomona Valley Audubon Society. California Botanic Garden. Claremont, CA. *www.calbg.org.*

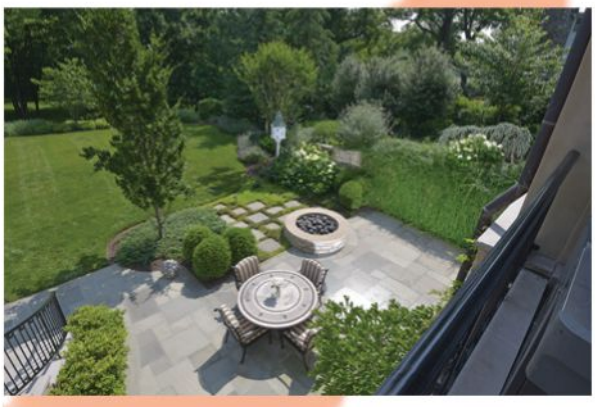
RAP NOV. 4–7. **Arbor Day Garden Expo and Tree Giveaway.** Maui Nui Botanical Gardens. Kahului, HI. *www.mnbg.org.*

CANADA

RAP OCT. 17. **Your Urban Forest.** Class. Royal Botanical Gardens. Burlington, ON. *www.rbg.ca.*

RAP OCT. 31. **Plant Identification and Culture Workshop.** Horticulture Centre of the Pacific. Victoria, BC. *https://hcp.ca.*

Chapel Valley Landscape Company



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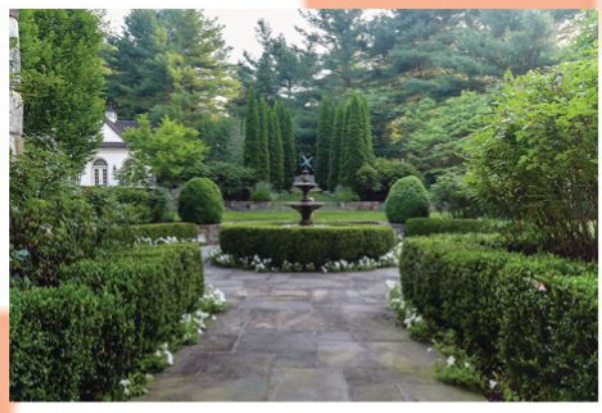

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PRONUNCIATIONS AND HARDINESS ZONES

Most of the cultivated plants described in this issue are listed here with their pronunciations and USDA Plant Hardiness Zones. The hardiness zones are listed in the form of an approximate range in which year-round temperatures are appropriate for growing each plant. 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.

While the zones are a good place to start in determining plant adaptability in your region, factors such as soil type, light exposure, seasonal rainfall patterns, 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–G

Aquilegia canadensis ah-kwi-LEE-juh kan-uh-DEN-siss, 3–8
Aralia cordata uh-RAY-lee-uh kor-DAY-tuh, 4–8,
Arisaema triphyllum air-ih-SEE-muh try-FIL-lum, 4–9
Aristolochia californica uh-ris-toh-LO-kee-uh kal-ih-FORN-ih-kuh, 8–10
A. macrophylla A. mak-ro-FIL-luh, 4–9
Aronia melanocarpa uh-RO-nee-uh mel-an-o-KAR-puh, 3–8
Baptisia australis bap-TIZ-yuh aw-STRAY-liss, 3–9
Bignonia capreolata big-NO-nee-uh kap-ree-o-LAY-tuh, 6–9
Centaurea americana sen-TAH-ree-uh uh-mair-ih-KAN-uh, 0–0
Cercidiphyllum japonicum sur-sid-ih-FIL-lum jah-PON-ih-kum, 4–8
Cercis canadensis SUR-siss kan-uh-DEN-siss, 4–9
Chamaecrista fasciculata kam-ee-KRYST-uh fas-sik-yew-LAY-tuh, 3–9
Clematis pitcheri KLEM-uh-tiss PITCH-ur-eye, 5–9
C. texensis C. teks-SEN-sis, 5–9
C. viorna C. vy-OR-nuh, 5–8
Climacium americanum klih-MAY-see-um uh-mair-ih-KAN-um, 5–7
Conoclinum coelestinum kon-o-KLIN-um suh-LESS-tin-um, 5–10
Coreopsis tinctoria kor-ee-OP-sis tink-TOR-ee-uh, 0–0
Cystopteris fragilis sis-TOP-ter-is FRAJ-ih-liss, 2–9
Darmera peltata DAR-mer-uh pel-TAY-tuh, 5–8
Decumaria barbara deh-kew-MAIR-ee-uh BAR-bar-uh, 5–9
Delphinium carolinianum del-FIN-ee-um keh-ro-lin-ee-AN-num, 4–7
Eschscholzia californica es-SHOLZ-zee-uh kal-ih-FORN-ih-kuh, 6–10
Euphorbia bicolor yew-FOR-bee-uh BY-kul-ur, 6–9
E. marginata E. mar-jih-NAY-tuh, 0–0
Gaillardia aestivalis* var. *winkleri gay-LARD-ee-uh es-tih-VAL-iss var. WINK-ler-eye, 7–9
Gelsemium sempervirens jel-SEE-me-um sem-pur-VY-renz, 6–10
Gymnocladus dioicus jim-no-KLAD-us dy-o-EE-kus, 5–9

H–Z

Helenium amarum heh-LEE-nee-um ah-MAR-um, 0–0
Helianthus argophyllus hee-lee-AN-thus ar-go-FIL-us, 0–0
H. debilis H. DEB-ih-liss, 0–0
H. tuberosus H. too-bur-O-sus, 4–9
Hymenopappus artemisiifolius hy-men-o-PAP-us ar-teh-me-sih-FO-lee-us, 6–8
Impatiens capensis im-PAY-shenz kuh-PEN-sis ,0–0
Ipomopsis rubra ih-po-MOP-sis ROO-bruh, 6–9
Lobelia siphilitica lo-BEEL-yuh sih-fih-LIH-tih-kuh, 4–9
Lonicera sempervirens lah-NISS-er-uh sem-pur-VY-renz, 5–9
Lupinus subcarnosus loo-PY-nus sub-kar-NO-sus, 0–0
L. texensis L. teks-EN-sis, 6–8
Monarda citriodora muh-NAR-duh sih-tree-o-DOR-uh, 0–0
Ostrya virginiana OSS-tree-uh vir-jin-ee-AN-uh, 4–8
Parthenocissus quinquefolia par-then-o-SISS-us kwin-kweh-FO-lee-uh, 3–9
Penstemon tenuis PEN-steh-mon ten-yew-ISS, 7–10
Phlox divaricata FLOKS dih-vair-ih-KAY-tuh, 3–8
Rudbeckia hirta rood-BEK-ee-uh HUR-tuh, 3–8
R. maxima R. MAKS-ih-muh, 4–8
Salvia coccinea SAL-vee-uh kok-SIN-ee-uh, 8–10
Streptanthus maculatus strep-TAN-thus mak-yew-LAY-tus, 6–8
Stylophorum diphyllum sty-lo-FOR-um dy-FIL-lum , 4–9
Thalictrum dioicum thal-IK-trum dy-o-EE-kum, 3–8
Wisteria frutescens wis-TEER-ee-uh FROO-tess-ens, 5–9
W. macrostachys W. mak-ro-STAY-kee-yuh, 3–8
Yucca filamentosa YUK-uh fil-uh-men-TOH-suh, 5–10

Black Chokeberry (*Aronia melanocarpa*)

by Laurie Casey

I FIRST ENCOUNTERED black chokeberry *(Aronia melanocarpa)* blooming in a forest preserve in my Illinois community. Its masses of delicate white flowers against the weathered wood rails of a long rustic fence created such a charming vignette that I thought it would look perfect against my red brick house. I planted three black chokeberries under my front windows four years ago, and I've been enjoying their many moods ever since.

A rose family member, black chokeberry (USDA Hardiness Zones 3–8) is a multi-seasonal, deciduous shrub that features an explosion of showy, five-petaled, white flowers in mid- to late spring and glossy green leaves with purple-black berries in summer. The leaves turn red and orange in fall, providing additional ornamental value.

The plant's species name, derives from *melano*, meaning black, and *carpa*, meaning fruit. The blueberry-sized fruits grow abundantly in drooping clusters that may persist through winter and are valued by both humans and wildlife as a food source.

The shrub typically grows between three to six feet high in northern latitudes and up to 10 feet high in southern ones. A botanical variety *(A. melanocarpa* var. *elata)*, which I have in my garden, grows taller than the straight species and has larger leaves, flowers, and fruit. Among the many available cultivars are some selected or bred for shorter stature.

HEALTHFUL QUALITIES

Black chokeberry is native to eastern North America, from Newfoundland to southern Ontario and Minnesota in the north to Missouri, Tennessee, and Georgia in the south. The Potawatomi people of the Great Lakes region used the fruit to make a tea to treat the common cold. It turns out it is an excellent source of powerful antioxidants.

Top: Black chokeberry produces loads of white flowers in spring. Above: The tart, edible fruits are packed with anthocyanins and flavonoids.

Commonly marketed as "aronia berry," chokeberry has become popular in the health food industry. One mature bush can produce a good-sized harvest for use in jams, juices, and baked goods, or adding gorgeous color to a variety of drinks.

HOW TO GROW IT

Black chokeberry can be grown in full sun to part shade and prefers a soil pH of 5.0 to 6.5. It thrives in moist soils, but also grows well in drier ones if well mulched and watered during prolonged periods of drought. This tough plant is perfect for a rain garden and also tolerates salt spray as well as compacted soils near driveways and paths.

Plants tend to form colonies by suckering, although mine haven't yet. You can prune plants before they flower in spring if you need to keep them from spreading.

Black chokeberry has no serious insect or disease problems, aside from minor susceptibility to leaf spots and twig or fruit blight. Cage the plant when it's young to protect it from hungry rabbits. Deer enjoy browsing it, too. Cover plants with netting if you don't want birds eating the fruits.

If you're looking for a native shrub that is fuss-free and enchants year round—as well as provides tasty fruits—consider growing black chokeberry.

Sources

Digging Dog Nursery, Albion, CA. *www.diggingdog.com.*
Forestfarm at Pacifica, Williams, OR. *www.forestfarm.com.*
Stark Bros, Louisiana, MO. *www.starkbros.com.*

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