Perennials for Winter Gardens

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A New Perspective on Garden Cleanup
Outstanding Conifers
Protecting One of Your Most Valuable Assets

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

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contents

Volume 89, Number 6 - November / December 2010

FEATURES

14 EDIBLE LANDSCAPING FOR SMALL SPACES
BY ROSALIND CREAM
With some know-how, you can grow all sorts of vegetables, fruits, and herbs in small spaces.

20 CAREFREE MOSS
BY CAROLE OTTESEN
Looking for an attractive substitute for grass in a shady spot? Try moss; it’ll grow on you.

26 OUTSTANDING CONIFERS
BY RITA PELCZAR
This group of trees and shrubs is beautiful year round, but shines brightest in winter.

32 GARDEN CLEANUP, RECONSIDERED
BY KRIS WETHERBEE
What you do—and don’t do—in your garden now can help plants prepare for winter and preserve habitat for wildlife.

37 WINTER STALwarts
BY KAREN BUSSOLINI
When designing a four-season landscape, include these tough herbaceous perennials that continue to provide interest in the colder months when their counterparts have gone dormant.

DEPARTMENTS

5 NOTES FROM RIVER FARM

6 MEMBERS’ FORUM

8 NEWS FROM THE AHS
Boston’s garden contest grows to record size, 2011 AHS President’s Council trip planned for Houston, Gala highlights, rave reviews for Armitage webinar in October, author of article for The American Gardener receives garden-writing award, new butterfly-themed children’s garden installed at River Farm.

12 2010 AMERICA IN BLOOM AWARD WINNERS
Twelve cities are recognized for their community beautification efforts.

42 ONE ON ONE WITH...
David Karp: Fruit detective.

44 HOME GROWN HARVEST
The pleasures of popcorn.

46 GARDENER’S NOTEBOOK
Replacing pavement with plants in San Francisco, soil bacterium may boost cognitive function, study finds fewer plant species on earth now than before, a fungus-and-virus combination may cause honeybee colony collapse disorder, USDA funds school garden program, Park Seed sold, Rudbeckia Denver Daisy™ wins grand prize in American Garden Award Contest.

50 GREEN GARAGE®
A miscellany of useful garden helpers.

52 BOOK REVIEWS
From Art to Landscape, Gardening for a Lifetime, The World of Trees, and Bark.

54 GIFTS FOR THE GARDENER
Ideas for holiday gift-giving.

56 REGIONAL HAPPENINGS

58 HARDINESS AND HEAT ZONES
AND PRONUNCIATIONS

60 2010 MAGAZINE INDEX

62 PLANT IN THE SPOTLIGHT
Chilean winterberry (Gaultheria mucronata).
“This is a book to turn to over a lifetime of garden misadventures.”
—Dominique Browning
_The New York Times_

AHS New Encyclopedia of Gardening Techniques

“You’ll find step-by-step instructions for pruning, watering, propagating; information about all categories of plants...sections on organic techniques and recycling; and how to treat pests and disease…. Consider it a plant-lover’s mutual fund—a little of this and little of that, in a dandy investment.”
—Ginny Smith
_Philadelphia Inquirer_

_The American Gardener_
Making America a Nation of Gardeners, a Land of Gardens

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<tr>
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<th>Name</th>
</tr>
</thead>
<tbody>
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*In memoriam
“Judge each day not by the harvest you reap but by the seeds you plant.”

As we find ourselves in the final months of 2010 and start looking forward to a new year, this venerable quote from Robert Louis Stevenson seems particularly appropriate. One of the wonderful things about the practice of horticulture is that we have the opportunity to plant seeds—literally and figuratively—on a regular basis.

Planting seeds is an act of optimism; we’re investing in the future—even if only in a small way. As gardeners, we sow seeds to produce plants for our own gardens or for those of our friends or customers. Those of us who thrive on relatively quick rewards may sow annual or vegetable seeds, while more patient souls may sow seeds of trees, shrubs, and other plants that will take years to mature.

Looking at this from another perspective, when we share our passion for gardening with others—either directly or by example—we are planting seeds of wonder, beauty, and knowledge and affirming that what we do as gardeners is making our world a better place. With this in mind, we believe you will find this issue of The American Gardener full of stimulating information and ideas that will deepen your interest in plants and gardens.

When it comes to creating gardens that are bountiful as well as beautiful, author and landscape designer Ros Creasy is nationally renowned. In an excerpt from her updated guide to edible landscaping, she offers useful advice for transforming even a small space into a garden that is visually appealing and highly productive.

In “Garden Cleanup, Reconsidered,” Kris Wetherbee explains why practicing some restraint can be a good thing when it comes to tiding up the garden in winter; you’ll discover that allowing seed heads and some fallen leaves to stay in place not only benefits your garden, but also provides needed habitat for wildlife.

And for those of you looking for ways to create interest in the winter garden, Karen Bussolini profiles some stalwart herbaceous perennials and grasses that offer valuable form, texture, or color during the period when most others are dormant.

While you are browsing through the magazine, don’t miss our annual holiday gift guide on page 54. One sure bet for your favorite gardener or cook this season will be the AHS’s newly released book, Homegrown Harvest, which is packed with practical and timely advice on growing your own fruits, vegetables, and herbs. Look for it at your local bookseller or order online through www.ahs.org.

Happy gardening and best wishes for the New Year from all of us at the AHS!

Harry Rissetto, Chair, AHS Board of Directors
Tom Underwood, Executive Director

P.S. Speaking of planting seeds, be sure to look for the 2011 AHS members-only Seed Exchange list, which will be posted on our website (www.ahs.org) in mid-January. One of the Society’s longest running and most popular membership programs, the Seed Exchange is a great way to try something new or share your favorite plants with other members.

NOTES FROM RIVER FARM

CONTRACTS FOR AHS PROGRAMS, MEMBERSHIP BENEFITS & DEPARTMENTS

For general information about your membership, call (800) 777-7931. 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@ahs.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@ahs.org.

DEVELOPMENT To make a gift to the American Horticultural Society, or for information about a donation you have already made, call (800) 777-7931 ext. 127.

E-NEWSLETTER To sign up for our monthly e-newsletter, visit www.ahs.org.

INTERNSHIP PROGRAM The AHS offers internships in communications, horticulture, and youth programs. For information, send an e-mail to education@ahs.org. Information and application forms can also be found in the River Farm area of www.ahs.org.

NATIONAL CHILDREN & YOUTH GARDEN SYMPOSIUM For information about the Society’s annual National Children & Youth Garden Symposium, call (800) 777-7931 ext. 137 or visit the Youth Gardening section of www.ahs.org.

RECIPROCAL ADMISSIONS PROGRAM The AHS Reciprocal Admissions Program offers members free admission and other discounts to more than 250 botanical gardens and other horticultural destinations throughout North America. A list of participating gardens can be found in the Membership area of www.ahs.org. For more information, call (800) 777-7931 ext. 119.

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

TRAVEL STUDY PROGRAM Visit spectacular private and public gardens around the world through the Society’s acclaimed Travel Study Program. For information about upcoming trips, call (800) 627-6621, send an e-mail to ahs@macnairtravel.com, or visit the Travel Study section of www.ahs.org.

WEBSITE: www.ahs.org The AHS website is a valuable source of information about the Society’s programs and activities, finding out about gardening events in your area, and linking to other useful websites. To access the members-only section of the website, this year’s password is oak. The user name is ahs.
MORE COMMENTS ON DIGITAL EDITION

Thanks for all your e-mails regarding the digital edition of the magazine. Here’s a sampling of the feedback we received from the September/October issue.

I LOVE the online edition. I share some articles with a cousin and I appreciate that I can choose whatever article(s) I want and print them out as needed rather than trying to photocopy pages. It’s wonderful. Thank you!

Holly Shelton
Santa Cruz, California

Personally, I do not want to receive the magazine in digital format. The American Gardener seems to have more detailed information than some other magazines, so I tend to either re-read sections of the article or just sit and absorb. I like to take my magazines with me to read when I have spare time—on vacations, waiting for appointments, etc. To me, magazines are for hands-on reading, and I find that turning the pages of high-quality paper adds to the enjoyment.

Martha Waldemar
Clackamas, Oregon

The digital magazine is terrific. I would prefer that you go completely digital, both for the environment and for search capabilities. I do research on hearing/acoustics and many of the professional journals in this field are now only available in digital versions.

Doris Kistler
Louisville, Kentucky

After receiving notice that a digital version was available, I went to the AHS website and looked at your digital offering. Unfortunately, while interesting, it is basically useless for those of us who want to download the entire issue and read it at our leisure and not have to be connected to the Internet to read the issue. Please make the entire version available for download.

Brad Johnson
McLean, Virginia

Editor’s note: Based on reader requests, we have activated a feature that allows you to download a PDF file of each issue to your desktop that you can read using Adobe Acrobat Reader.

PLEASE WRITE US! Address letters to Editor, The American Gardener, 7931 East Boulevard Drive, Alexandria, VA 22308. Send e-mails to editor@ahs.org (note Letter to Editor in subject line). Letters we print may be edited for length and clarity.
Gardens and Innovation: Chicagoland and Rockford
August 17–21, 2011
with AHS Host Katy Moss Warner
■ Discover the horticultural abundance that the Chicago area offers during this tour of the innovative gardens that have contributed to the greening of Chicago. Among these are the Lurie Gardens in Chicago’s Millennium Park, the world-renowned Chicago Botanic Garden, and Garfield Park Conservatory. We will also visit several stunning private gardens, award-winning gardens in Rockford, Illinois, and the trial gardens at Ball Horticultural Company’s headquarters.

Castles and Gardens of Bohemia and Moravia
September 26–October 6, 2011
with AHS Host Kurt Bluemel and Tour Escort Harriet Landseer of Special Tours
■ We begin this trip to the Czech Republic in the capital city of Prague, renowned for its castles and cathedrals. From there we will venture to the historic and picturesque regions of Bohemia and Moravia. Experience a wealth of gardens in styles ranging from formal Italianate, Renaissance, and Baroque to Neo-classical and modern—including several 20th-century gardens created by visionary designers.

The Loire Valley and the Festival at the Domaine de Courson
May 5–14, 2011
with AHS Host Jane Diamantis and Tour Escort Susie Orso of Special Tours
■ Explore the beautiful and storied Loire Valley in northwestern France in springtime. This exclusive tour will provide entrée to some of the finest privately-owned historic châteaus and gardens, including Château de Cheverny, Château de Chenonceau, and the inspirational ornamental potager at Villandry. For the grand finale, we will enjoy the international “Journées des Plantes” festival at the Domaine de Courson, south of Paris.

For more information about upcoming tours in the AHS Travel Study Program, please contact our travel planner, MacNair Travel:
• E-mail: ahs@macnairtravel.com • Call: (866) 627-6621 • Visit: www.ahs.org
BOSTON’S GARDEN CONTEST GROWS TO RECORD SIZE

Plants aren’t the only things growing in the gardens of Boston these days—so is the number of gardeners. Boston Mayor Thomas M. Menino’s 14th annual Garden Contest saw a record number of entries this year, including an entirely new category for senior gardeners. On August 26, former American Horticultural Society President Arabelle Dane represented the Society at the awards ceremony in Boston, where Mayor Menino presented the coveted “Golden Trowel,” along with a one-year AHS membership and prizes from the City of Boston, Comcast, and HGTV, to each first place winner.

“It’s important to have people show interest in beautifying the neighborhood,” says Camille Carney, who took first place in the Medium Yard Garden category. “This contest fosters the excitement of hard work paying off and the joy of having something you’ve put so much effort into being beautiful.”

Part of a city-wide crusade to make Boston greener, the contest embraces everything from community gardens to storefront, porch, and vegetable gardens. For the past nine years, the AHS has supported the contest by providing all first-, second-, and third-place cast, and HGTV, to City of Boston, Com- and prizes from the AHS membership.

UPCOMING PRESIDENT’S COUNCIL TRIP TO HOUSTON

ONE OF THE special benefits for AHS President’s Council members is an exclusive trip to an exciting horticultural destination each year. In 2011, AHS board member Gay Estes, along with Executive Director Tom Underwood, will host an expedition to the Lone Star State from March 23 to 27.

Highlights of the trip include excursions to Peckerwood Gardens, which exhibits more than 3,000 plants ranging from magnolias to oaks; browsing Treesearch Farms’ ferns, roses, and fruit trees; and marveling at the Mercer Arboretum and Botanic Gardens’ 300 acres of East Texas Piney Woods—the largest collection of native and cultivated plants in the region. Participants will also enjoy a behind-the-scenes tour of the Houston Museum of Natural Science’s butterfly center, a three-story glass building filled with exotic plants and butterflies, as well as a tour of the Museum of Fine Arts’ Bayou Bend Collection and Gardens—home to charming gardens and an extensive assemblage of American decorative arts dating from 1620 to 1870.
From exclusive tours of the city’s best private gardens to backstage tours of its public gems, President’s Council members will discover why—in the horticultural world—Houston is like another country. For more information, contact Sue Galvin at (703) 768-5700 ext. 111 or sgalvin@ahs.org.

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 August 1 and September 30, 2010.

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Shelley and Tommy Mullet

If you would like to support the American Horticultural Society as part of your estate planning, as a tribute to a loved one, or as part of your annual charitable giving plan, please contact: Tom Underwood, Executive Director at (703) 768-5700 ext. 123 or tunderwood@ahs.org.
**On the Wings of Fancy**

A child enjoys River Farm’s new butterfly garden—complete with a fountain and a butterfly-shaped bench. Volunteers teamed up with River Farm Horticulturist James Gagliardi in October to install the garden, which was made possible with a generous donation from the National Capital Area Garden Clubs, District II.

**OCTOBER WEBINAR HIGHLIGHTS NATIVE PERENNIALS**

On October 7, University of Georgia horticulture professor Allan Armitage gave an hour-long presentation on “Native Perennials” to 211 AHS member participants from 41 different states, the District of Columbia, and Canada. The always-engaging and opinionated Armitage enthralled participants with beautiful photographs, witty observations, and landscape design advice, including suggestions for effective plant combinations.

Nancy Furth, a webinar participant from Plano, Texas, remarked, “What wonderful times we live in to be able to sit in front of a screen and listen to such great speakers.”

Armitage also presented an AHS webinar on “Vines and Climbers for American Gardens” in April. To view recordings of these online presentations, visit the members-only area of the AHS website (www.ahs.org).

**2010 GARDEN WRITERS ASSOCIATION MEDIA AWARDS**

From among scores of entries, the Garden Writers Association’s (GWA) annual media awards selects the best garden communicators for recognition. Congratulations to Doreen Howard, who won the GWA’s 2010 Silver Award of Achievement for her article, “Gardens of Recovery,” published in the November/December 2009 issue of The American Gardener.

“I was thrilled that my article on healing gardens won the Silver Trowel, because I felt that the people in the article had a pow-erful story to tell,” says Howard, whose article explored the design and use of therapeutic gardens for patients suffering from a range of maladies, from drug addictions to extensive burns. It was one of 38 winners this year, selected from 238 entries.

For the past 25 years, the GWA awards program has been recognizing the achievements of garden communicators, from traditional writers, photographers, radio and television show hosts, illustrators, and graphic designers to Internet communicators. “It is a means of showcasing the many exceptional works aired and/or published every year on a wide range of topics from home gardening to green industry trade issues,” says Robert LaGasse, GWA executive director. For more information about the GWA and to see a list of all the 2010 winners, visit www.gardenwriters.org.

*News written by Editorial Intern Patrick Morgan.*
NEW from the American Horticultural Society

A season-by-season guide to a sustainable kitchen garden

HOW AND WHEN TO GROW EVERYTHING YOU WANT IN YOUR OWN KITCHEN GARDEN

• Advice on planning, setting up, and designing your garden
• Expert, earth-friendly techniques for successfully growing and harvesting herbs, fruits, and vegetables
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To view an excerpt from the book, visit www.ahs.org.

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• Handy charts that tell you when to sow seeds and harvest different vegetables
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Hardcover, $32.50     304 pages
AHS NEWS SPECIAL: America in Bloom’s 2010 Award Winners

by Patrick Morgan

DURING America in Bloom’s ninth annual competition, cities and communities across the U.S. put their best flowers forward once again. And this year, in addition to encouraging the improvement of urban green space, this nationwide beautification program also scattered seeds in cyberspace. The first America in Bloom (AIB) YouTube Award (see box, opposite) was presented to the city of Arroyo Grande, California, during the AIB Symposium and Awards Ceremony, which took place in St. Louis, Missouri, from September 30 to October 2.

AIB ENJOYS MIDWEST HOSPITALITY

“Bursting with Midwest hospitality, St. Louis and the Gateway Region were tremendous hosts for this year’s symposium,” says Laura Kunkle, AIB’s executive director. “In addition to the awards, this event brings together people from all regions of the country to share ideas that others can take home and implement.”

The awards program recognizes AIB participants in two different categories. The population category allows cities of comparable size to compete against each other, while the criteria awards allow all cities to vie for special recognition.

COMMUNITY INVOLVEMENT AWARD

Since 2004, the AHS has sponsored one of the eight criteria awards—the Community Involvement Award—which honors a city whose residents and organizations best exemplify the spirit of collaboration. Katy Moss Warner, AHS president emeritus, presented this year’s award to Arroyo Grande, California. “Community involvement is at the heart of America in Bloom,” says Warner, “because it is through volunteers and generous donations to community efforts that great things happen.” And the best thing about AIB is that it “gives communities a framework for improvement,” she adds. “From hanging flowering baskets on Main Street to restoring historic buildings, the possibilities are endless when citizens unite to improve their small patch of America.”

Bob Lund, a business owner in Arroyo Grande, says he and his community were “pleased as punch,” to receive the award. “One of the things we have in Arroyo Grande is a true sense of community—and the pride that comes from that involvement. The AIB program brings all our civic groups together—the historical society, the tree guild, and others—so that now we’re working more as a team and helping each other out, which provides a greater base of expertise.”

Arroyo Grande also won a population category award, making it clear that within the colorful bouquet of AIB participants, the city truly stands out. And, to cap it off, Lund himself received the second annual John R. Holmes III Community Champion Award. Named after a beloved supporter of urban beautification, the award recognizes an individual who demonstrates extraordinary civic leader-
Like a true leader, Lund is quick to give credit to others. “It was only through the tremendous contribution of the people in our community that I was able to receive the award,” he says. “It’s their help and efforts that brought us together.”

The same passion is reflected in the other communities that, over the past year, have taken up AIB’s call to transform gray cityscapes into green ones. Since the beginning of the annual competition in 2002, more than 22 million people from 180 cities and 38 states have participated.

From the feel-good benefits of living around beauty and green space to the practical benefits such as slowing stormwater runoff and reducing heat-island effect, the planting projects AIB fosters can’t help but improve America city by city. For more information about the AIB or entering the 2011 contest, call (614) 487-1117 or visit www.americainbloom.org.

—P.M.

Population Category Award Winners
- 2,000 or less: Echo, Oregon
- 2,001–4,000: Lewes, Delaware
- 4,001–10,000: Charles City, Iowa
- 10,001–15,000: Tipp City, Ohio
- 15,001–25,000: Arroyo Grande, California
- 25,001–50,000: Westfield, New Jersey
- 50,001–100,000: Bloomington, Indiana

Criteria Award Winners
- American Horticultural Society Community Involvement Award: Arroyo Grande, California
- Ball Horticultural Company Floral Displays Award: Shipshewana, Indiana
- Environmental Awareness Award: Fayetteville, Arkansas
- J. Frank Schmidt & Son Company Urban Forestry Award: Bloomington, Indiana
- Meister Media Worldwide Heritage Preservation Award: Webster Groves, Missouri
- OFA – The Association of Horticulture Professionals Landscaped Areas Award: Westfield, New Jersey
- Tidiness Award: Rising Sun, Indiana
- Turf & Groundcover Areas Award: Addison, Texas

AIB YOUTUBE AWARD
Arroyo Grande’s award-winning video highlights the efforts of the city’s many hardworking volunteers through a photo montage of the community’s colorful storefronts, streets, and municipal buildings. “I think our video was so successful because everybody in our group feels so deeply about the program,” says Arroyo Grande business owner Bob Lund. “They put their hearts into it.” To view the video, click on the link with this article on the AHS website (www.ahs.org).

Patrick Morgan is an editorial intern with The American Gardener.
Edible Landscaping for small spaces

ARTICLE AND PHOTOGRAPHS BY ROSALIND CREASY
“SMALL SPACE” means different things to different people. Although some folks may consider my total edible garden space (about 2,000 square feet) large, speaking practically, I grow food in a number of small spaces. Containers hold berries, veggies, and herbs on a front yard brick patio. Lining the front walkway are several rectangular beds; both plants and design change from season to season. The area separating my driveway from my neighbor’s is a major fruit-producing spot. Within the confines of these small front and backyard gardens, I produce hundreds of pounds of fresh vegetables and fruits each year.

Maybe you want to enjoy specialty herbs your grandmother used in her cooking, but you live in a condominium and have just a small balcony or patio. Perhaps you’re fascinated by the many different types of apples but have a typical suburban plot. Or you simply want to reduce your grocery bills by growing some of your own food. You can do all this and more in small garden areas by using techniques to maximize your space, including growing edibles in containers, choosing compact varieties, and going vertical.

SMALL-GARDEN BASICS

Small yards present different challenges than large ones. Sometimes you need to get creative to find enough full sun for your tomatoes. Or maybe you think you don’t have room for a large fruit tree, or space for a compost bin. Almost anything is possible in small gardens; you just need to plan carefully and sometimes think outside the box.

One of the first challenges in a small space can be sunlight—or lack thereof. Small gardens, particularly city gardens—unless on the tallest rooftop—receive less sun than larger gardens because surrounding buildings and trees cast shadows on them. A small yard might receive full sun in the winter and be in complete shade in the summer, or the opposite might be true. In planning a garden for a courtyard, patio, or deck of an apartment, study your sun patterns carefully. You may find that containers on rolling casters are a simple solution, allowing you to move your edibles to take advantage of changing sun patterns.

If you’re concerned about your ability to grow fruit productively in a limited area, rest assured that you can grow and harvest plenty. Espaliered fruit trees and deciduous vines, such as grapes, flourish when trellised against a south-facing wall. Because the leaves of these fruit trees and vines shade the wall in summer, while bare limbs let the sun’s warming rays shine through in winter, these plants help to reduce air-conditioning and heating bills. Vining vegetables, including cucumbers, beans, and tomatoes, can work the same magic.

When a gardening book recommends composting, people with small gardens usually sigh and say, “Nice, but…” Yet even small properties often have an out-of-the-way corner or space under a tree that is perfect for a small prefabricated recycled-plastic composter. Or put one of the tumbler-type bins near the back door and camouflage it with plants. Ellen Spector Platt, who gardens on the roof of an 18-story apartment building in New York City, recommends, “Alternate layers of kitchen waste with a layer of fine soil and a nitrogen source like garden foliage and cottonseed meal, and you’re in business.” For some gardeners, a worm bin under the kitchen sink or in the garage is the most space-saving method.

And remember that high yields start with good, rich soil—no matter what size the garden. Adding ample amounts of compost, manure, and other organic mat-
ter to the soil provides nutrients and aeration, eliminating the need for synthetic fertilizers and pesticides that inhibit beneficial soil microbes.

If you don’t have open ground, try creating raised beds. Advocates of raised-bed gardening claim the beds are more productive because the soil drains well and warms up faster in spring.

Another tip for getting the most out of a small growing area is to practice interplanting. Basically, this means utilizing as much garden space as possible. In spring, consider sowing seeds for quick-maturing crops such as radishes, arugula, baby greens, and beets in the open space between slow-maturing tomatoes, peppers, and cucumbers. Because these quick crops are in and out of the garden within 21 to 40 days, they don’t impinge on the main crop. In late summer, remove spent bush bean and early cucumber plants and intercrop with transplants of quick-growing and heat-tolerant lettuces and frost-tolerant kale, cilantro, mustard, and pac choi.

Finally, don’t forget to use vertical space. Grow vining plants up on supports, espalier fruit trees against walls, and plant window boxes.

EDIBLE PLANTS FOR SMALL SPACES

The most obvious way to maximize your harvest in a small space is to select naturally small edibles, such as blueberry bushes, instead of huge walnut trees. Choose super-productive varieties for the greatest yield per square foot. Or opt for a large edible you can control, such as most grape varieties or ‘Black Satin’ blackberry. Although sizeable (its canes can reach 10 feet in length), this blackberry is easy to keep to three or four canes, trained along the top of a wall or fence. Unlike many of its kin, ‘Black Satin’ doesn’t sucker readily, so there is no intimidating thicket to fight off. And it’s thornless, so it doesn’t slash you when you work in close quarters or walk nearby.

Hybridizers and nursery growers are aware of a large new market—people who want to grow edible plants in small yards or in containers—and have responded by developing many compact vegetables and dwarf fruit trees. Quite a few are even more beautiful than their full-size cousins. Instead of six-foot-tall, gawky okra plants, look for diminutive 18-inch-high okras with red foliage. Forget those sprawling 12-foot-long watermelon or winter squash vines; grow small icebox watermelons and ‘Cornell’s Bush Delicata’ winter squash on compact vines.

GOING VERTICAL

Vertical gardening is just plain practical—and pretty, as well. By growing upward, plants do not take up valuable ground—potential growing space—for anything but their roots and branches. Vertically grown plants are generally healthier than
those sprawling on the ground because with increased air circulation and more leaves exposed to sunlight, the fruits do not rot. (Desert gardeners, on the other hand, soon learn that vertical plants are more prone to drying winds; if they face south, the fruits and leaves can get sunburned. Under these harsh conditions, give vertical plantings shelter from the wind and afternoon shade.)

Both vines and climbers will grow up. Vines have evolved ways of pulling themselves off the ground by using supports—think pea, squash, and grape tendrils or the twisting stems of Malabar spinach and hops. Climbers such as tomatoes and roses, on the other hand, may want to grow up, but physically they cannot unless secured onto a support. Although some climbers make good groundcovers when given the space, vines reach for the sky and make superlative wall covers, area dividers, and shade providers. Vines are versatile—they soften stark architectural lines, add privacy, and extend limited garden space. Most of all, they move the focal point up, adding another dimension of garden interest.

GROWING EDIBLES IN CONTAINERS
I’m addicted to growing edibles in containers; I have 20 or more containers going at any one time. Containers allow people who have no open soil to garden on balconies, tiny patios, even the edges of carports—wherever the sun reaches. And containers offer gardeners who have plenty of room convenience and versatility in decorating their outdoor space—they can keep some potted herbs on the kitchen steps and move showy containers from the backyard to the front walkway. Others with yards that are mostly shaded can move containers around on the patio to catch available rays. Containers also bring plants up close so you can readily enjoy the fragrance of otherwise low-growing plants like mint or sweet violets.

As a landscape designer, I find that interesting containers add sparkle to an otherwise dull corner of a garden, no matter what its size, and nicely fill in seasonal empty spaces in a small yard. Containers add dimension to a flat garden. They can function as a focal point—either a large container by itself or a cluster of interesting containers—and add color to a monochromatic planting.

All in all, containers are a delight to use in just about any landscape design. In fact, you can fill a small garden space and produce lots of food in a stylish manner using only containers. (See side-bar on page 18 for tips on successfully growing edibles in containers.)

PLANTING TIPS FOR NOVICES
Get the most food from a small garden by using these techniques:
- Plant mesclun salad and stir-fry greens mixes; they produce a lot in a short time.
- Choose plants such as eggplants, chili peppers, chard, and kale, which yield a large harvest over a long period but don’t take up a lot of space.
- Grow indeterminate tomato varieties, which produce more fruit over a longer period than determinate varieties.
- Plant pole beans, peas, and vining cucumbers, which are more productive than bush types, as they grow vertically and for a longer season.
- Choose day-neutral strawberries, which bear from early summer through fall, outproducing spring-bearing types.
- Include plants that are in and out of the garden quickly—for example, radishes, lettuces, arugula, and green onions—among your other edibles.

—R.C.
GROWING EDIBLES SUCCESSFULLY IN CONTAINERS

Over the last 25 years, my containers have run the gamut from modern metal cylinders, coir hanging baskets, and shallow square terra-cotta containers to self-watering plastic pots. Variety can be nice, of course, but if I had to choose only one style, I’d select wine barrels.

I live in a cool-summer area in California. Most years I struggle to get really sweet tomatoes and melons. The warmest part of my garden is near the driveway, but I grew tomatoes and eggplants in the soil a few too many times and ended up with parasitic root knot nematodes. After trying to deal with these pests to no avail, I decided to install a brick patio over them. I designed a wall on three sides of the area to create a warmer environment for growing my heat lovers—watermelons, tomatoes, and a fig tree—in containers. I had struggled with growing edibles successfully in small containers because of the tendency for the soil to dry out, but I had luck with larger barrels, so I put in a demonstration barrel garden to show off their potential to other gardeners.

There are all sorts of barrels, not just the half wine barrels commonly sold in nurseries and home improvement stores. If you search online, you will find lots of used barrels in all shapes and sizes—whiskey barrels, Japanese sake barrels, and large red plastic pickle barrels, to name just a few. All of these make great containers for growing all sorts of edible plants.

Take my advice when filling large containers with soil. After a few failed attempts using heavy potting mixes, I consulted soil and container experts, who told me to put a lot of twigs in the bottom third of the containers and add more perlite to the soil mix to improve drainage. Since then, I’ve had no problems with soil rotting in large containers. After a few years, I remove the soil and replace the decayed twigs with fresh ones before replanting the containers. —R.C.

SPECIALTY SMALL-SPACE GARDENS

Even in a small yard, you can have a specialty edible garden. Perhaps you’re crazy about Chinese or Thai food. A few large containers of cilantro, chilies, garlic, and stir-fry greens take up little space on a patio or in a raised bed. If heirloom apples are your passion, grow a mini-orchard. Apple trees can be easily kept to the size of most shrubs and restricted to four or five feet across. Use your creativity; you can do much more with a small space than you think.

Mini-Orchards While orchards bring to mind a large area, you can grow many pounds of fruit and many different varieties in a small yard. Growing fruit intensively, however, requires specialized knowledge. Fortunately, there are associations of fruit specialists, such as the Home Orchard Society (www.homeorchardsociety.org) and the North American Fruit Explorers (www.nafex.org), whose members can help get you started.

I have relied on these organizations for years. In fact, at a California Rare Fruit Growers (www.crfg.org) meeting, I learned of a member in Southern California (USDA Zone 10) who converted her small front yard lawn into an Eden of fruit and nut trees. She took the flat, uninspiring area with its straight front walk and created brick paths to either side before putting in her trees, which she underplanted with succulents, herbs, and edible flowers. She now harvests macadamia nuts, many types of citrus, cherimoyas, longans, sapotes, bananas, avocados, and 10 varieties of guava.

Another hobby gardener passionate about fruit is Gene Yale. A member of the Midwest Fruit Explorers (www.midfex.org), he has a most remarkable mini-orchard in his small backyard in suburban Chicago. Not content with a mere collection of trees, Yale planned and planted an eye-pleasing, geometric pleasure garden. Each tree is in its own defined bed; grass paths tie all the beds together. In this creative design Yale grows 93 different apple varieties in his small backyard. Some are modern varieties, others antiques. The smaller trees grow three to four feet tall,

On the author’s blue-walled patio, a shallow terra-cotta tray is ideal for growing Bibb lettuce, while ornamental cabbages, mesclun, carrots, and cauliflower fill other containers.
and produce about two dozen apples per tree each year. His larger trees grow about six feet tall and bear about 50 apples each.

**Water Gardens** Throughout history, people have grown water plants for food, especially in Asia, where tillable land is scarce. There are familiar edible plants such as watercress and water chestnut; plants native to North America such as wild rice and cattail; as well as plants from Asia such as wasabi, lotus, and taro—all of which you can grow in a pot.

As a bonus, most of these plants are highly ornamental.

A small preformed plastic pond kit available from a water garden supply house is all you need to grow a few lotus plants and a good supply of water chestnuts. As long as you have a sunny place, the pond can go anywhere except—because of its weight—on a deck. To make the plastic pond a thing of beauty, sink it into the ground and camouflage the edges with creeping plants.

A submersible pump will keep the water moving to provide enough oxygen for plants and any fish you may have. If you don’t have a grounded outdoor electrical outlet for the pump’s plug, consider a solar-powered pump. In addition to mechanical pumps, water plants such as water lilies can help provide oxygen. Water lily pads, which are actually floating leaves, keep oxygen in the water and maintain stable water temperature. You need one medium to large water lily for every nine square feet of surface area in your pond.

Pot up your edible water plants in plastic containers filled with good, heavy soil enriched with a water-plant fertilizer. After planting, top off each container with gravel or sand to keep the soil from washing out when the pots are submerged. Place the containers in the water according to the directions that come with the plants. Raise the containers as needed using flat rocks or bricks.

**BIG PAYOFFS**
Growing edibles in tight quarters is not only possible, it’s an opportunity to create a small gem of a landscape. Even in very limited space you can have an aesthetically satisfying garden that supplies you with many pounds of produce year after year.

Rosalind Creasy is a landscape designer, writer, photographer, and edible landscaping expert. She lives in Los Altos, California.

**MAXIMIZING FRUIT YIELD IN SMALL SPACES**
For centuries, gardeners have devised many ways to get maximum fruit harvests out of a small area—including growing dwarf trees, using pruning techniques like espalier, and taking advantage of other garden structures to grow plants vertically, such as arbors for grapes. More unusual methods include growing a grapevine as a small weeping tree, a time-honored Italian training technique. Fig arbors are also common in Italy.

Most home gardeners prefer to have a manageable number of fruits throughout the growing season rather than a few huge harvests. Here are a few suggestions for growing fruits for spring-to-fall harvests in small spaces:

- Grow four or more different blueberry varieties for a two-month-long harvest.
- Share adjoining side yards with your neighbors and plant fruit trees.
- Choose compact, self-fertile varieties of standard fruit trees, such as ‘Weeping Santa Rosa’ plum and ‘North Star’ sour cherry.
- Train trees as standards or look for columnar varieties such as ‘Columnade’ apple.

Trees such as peaches, plums, cherries, apricots, and pears are fairly large and need another tree as a pollinizer in order to set fruit. Some nurseries offer space-saving fruit trees with the pollinizer grafted right onto the main tree. It’s important to attract pollinating insects, so include lots of plants with small flowers in your garden. If you have only enough room for one large tree and want to extend your harvest, try planting two dwarf varieties—early and mid-season—in a slightly enlarged planting hole.

For additional information about fruit tree options, techniques for keeping trees small, and for help in selecting varieties for your climate and space limitations, visit “The Home Fruit Tree Grower” web page of Dave Wilson Nursery at www.davewilson.com. —R.C.
Too many gardeners think of moss as something to get rid of. The reason for this, in most cases, is that a great, sweeping green swath of lawn is still de rigueur in American landscaping. To break lawn's hold on us, sometimes fate has to intervene.

For me, this deus ex machina came in the form of a monster snowfall that crushed the roof of my barn, destroying the mower parked inside. At that point I had little interest in spending money on another piece of machinery that took up a lot of room, coughed up great clouds of foul-smelling exhaust fumes, and broadcast its deafening din into the peace of a Saturday morning.

As it turned out, that cave-in presented me with an adult-sounding excuse to stop mowing forever and indulge a fantasy I had entertained since childhood. In the back of my mind there had always been a secret garden, a serene green oasis filled with intoxicating scents and precious wildflowers. And in its heart there would be a magic carpet of moss—an impossibly fine, verdant swath of velvet upon which one could almost imagine fairies dancing.

Of course that's not the sort of thing you tell your neighbors, at least not at first. When my neighbor inquired what had happened to my grass (I had poured aluminum sulfate over it to make the pH...
plummet, in order to kill it), I replied by enumerating the practical aspects of a moss lawn and how much easier it is to maintain than lawn grasses.

THE VIRTUES OF MOSS

First of all, though you never have to mow a moss lawn, it always appears freshly trimmed. All you have to do is remove weeds and fallen leaves. It looks fabulous in winter, when everything else looks ragged and gray. You won’t have to limb up trees to let in more sun, because most of the planet’s 14,500 species of moss prosper in moist, shady places. You’ll never have to spread lime because most mosses thrive on acid soil. And in spite of their preference for moist sites, once established, mosses needn’t be irrigated. In a drought, they become dormant, but revive with the first rain. Finally, you won’t have to aerate the soil because plenty of mosses are content in compacted clay.

One reason that mosses don’t mind compacted soil is that they don’t send true roots into the soil to obtain nutrients and water. Instead, fine, threadlike appendages called rhizoids simply hold them in place. In fact, mosses are so primitive in structure that they have no vascular system; nutrients and water move from cell to cell by osmosis. The downside of this system is that cells have not evolved protective surfaces that block out harmful compounds. If water carries dissolved industrial and urban pollutants, the cells may die.

Mosses come in both clumping and spreading forms. Because they form a relatively seamless carpet that inhibits weedy interlopers, the spreading types are the ones generally recommended for moss lawns. The clumping types have their own beauty, however, offering a quilted, more three dimensional effect.

GOING WITH THE FLOW

While most mosses are denizens of moist, shady woodland settings, others inhabit an immense variety of microclimates from deserts to lakeshore. Even so, they are not for everyone. In order for a moss lawn to succeed, it should be a go-with-the-flow undertaking. Conditions have to be conducive to mosses and vice versa. The best sites for moss lawns are those where mossy patches are already visible here and there in the grass—this is nature gently hinting that mosses are a better choice for the site than turfgrass.

Sometimes, you can give nature a leg up. When moss gardener David Benner bought his Pennsylvania property, he found a suitable groundcover on the site: “I saw patches of moss and got enthused,” he says. He spread sulfur dust on the grass to lower the pH and encourage moss.

“In six weeks, all the grass died,” he remembers. He pulled it out in May and by September a green film had spread everywhere he had cleared. “By the following May, the green film was moss,” he says.

Now, decades later, his moss lawn is on tour every May and has been featured in numerous publications. Benner’s pamphlet on how to start a moss lawn is available through his son Al’s nursery, Moss Acres (see "Sources,” page 24).

When there are mosses in the vicinity of a garden, the likelihood is that moss spores will migrate to a prepared site. The downside, in the short term, is that a prepared site, void of vegetation, is ugly. And it has to stay bare in order to provide a landing pad for spores. That can take months. After I killed my grass and pulled out the stragglers, what had been lawn was bare dirt. I admit to having misgivings as, day after day, I checked in vain for a sign of life.

As I recall, the green tint of embryonic moss appeared within weeks of my having removed the grass, but it took two full growing seasons to establish a swath green and thick enough to be called a lawn.

It’s possible to speed up the process by mixing moss and buttermilk (for acidity) in a blender and then spreading the slurry...
on a prepared site. In his book *Native Ferns, Moss & Grasses* (see “Resources,” page 24), William Cullina also suggests adding to the slurry some of the water-absorbing polymer crystals commonly sold as an additive to container soil mixes.

**PLUGS OR SOD**

One way to avoid the totally bare look of a new moss lawn is to plug in small plants that will be sacrificed later as the moss fills in. This was done at the Bloedel Reserve on Bainbridge Island, Washington (see *The American Gardener*, March/April, 2002). After vegetation was removed and the soil was smoothed out, the future moss garden was planted with Irish moss (*Sagina subulata*), not a moss at all, but a small plant with threadlike, insubstantial stems and leaves. The idea was that airborne moss spores could deposit themselves in
and among the tiny Irish mosses and, eventually, take over. Within a decade, a variety of mosses volunteered.

Purchasing moss sod from a nursery is yet another way to have a little green in place when starting a moss lawn. A number of reputable nurseries sell mosses and disseminate information about maintaining them (see “Sources,” page 24). Acquiring moss sod from the shady yards of agreeable friends is also acceptable, but digging mosses from the wild is not.

Whether purchased or begged, the mosses you select should be transplanted to situations with conditions similar to those in their places of origin. Match shade to shade, sun to sun, moist site to moist site. If in doubt, get several different kinds of mosses. Don’t be surprised if some die out and others prosper. Those that succeed are the ones best suited to your garden. Be sure to provide regular irrigation during the period after planting when the moss is getting established.

COMPANIONS FOR MOSS

When moss spreads enough to truly become a lawn, the garden gains character. Moss suggests great age. It is romantic. It is magical, transforming a typical suburban backyard into a tranquil forest clearing. Woodland elements such as rocks, ferns, and wildflowers augment the mood. “Plants companionable to carpeting moss add body to its flatness,” writes George Schenk in his classic book Moss Gardening, “and add to its uniformity the piquancy of differing textures and colors.”

Finding suitable companions is quite easy, and it’s fun to experiment and see what works. “I’m growing about 40 evergreen groundcovers,” says Benner of the plants that surround his moss lawn. Among these are creeping phlox (Phlox subulata), foamflowers (Tiarella spp.), and Oconee bells (Shortia galacifolia). Benner has also allowed an island of partridgeberry (Mitchella repens) to grow in the moss as well as “lots of bluets.”

Moss functions as a nursery for plants that don’t seem to self seed elsewhere. After years of fruitless efforts to grow bluets (Houstonia spp.) in my garden, they appeared in my moss lawn as if by spontaneous generation. I now permit them to take up as much room as they

HOW TO START A MOSS GARDEN

Starting a moss garden is easy but requires patience to see the payoff. It’s a good idea to start small. That way, the initial bare area is kept to a minimum.

1. Prepare the site, preferably one that already boasts patches of moss, by removing all vegetation. Don’t rototill or incorporate compost, but do acidify the soil to discourage grass, aiming for a pH of 5. To achieve this, you can add aluminum sulfate, powdered milk, acidifier for rhododendrons and azaleas, or sulfur (powder or granules).

2. If, in addition to (or instead of) waiting for spores to arrive, you are planting moss sod, do so on a cloudy day and thoroughly wet the soil before arranging them. The mud slurry will act as a glue to hold them in place. Depending upon how large your future moss lawn will be, you can either lay out sheets of moss or cut them into six-inch squares, spaced about a foot apart. On a slope, you can secure them with stones or with small wire hoops.

3. In either case, irrigate regularly until it is evident the mosses have taken and are making progress. After that, you can irrigate or not, depending upon your inclination and the effect you desire.

4. Keep the area weed- and grass-free before and after the moss establishes itself. Weed often—before the weeds become large—because once they do, they can take chunks of moss with them when they are pulled (shown). Because the usual garden tools are too crude for moss, I have found a fondue fork with tiny tines and a metal shish-kabob skewer make good tools for easing out small weeds.

5. If children, dogs, deer, or wheelbarrows tear up the moss, simply tamp it back into place. Dog urine leaves black spots but these will eventually re-green.

—C.O.
like, a privilege I also give to Oconee bells, but not to many other interlopers.

I also find ferns in all stages from the tiny heart-shaped “seedlings” (known as prothalli) to fully developed clumps. Seedlings of cardinal flower (Lobelia cardinalis), new color forms of alumroot (Heuchera spp.), and tiny evergreens also pop up here and there. I transplant most of these so they don’t shade out the moss, but always allow a few to remain to preserve a spontaneous look.

Weeding is the main, but not endless, chore. Benner reports that, after decades of growth in his garden, his moss has gotten so thick that weeds rarely take root. For the beginning moss gardener, however, weeding is a necessary task, best done regularly while the weeds are still small.

THE ZEN OF MOSS

Actually, I have come to enjoy this ritual of maintenance on my moss lawn. When weeding, I usually seat myself on a stepping stone in the middle of the moss lawn. If it is the rosy hour before dinner, I might set a glass of wine on another stepping stone. Then, picking out weed after weed after weed becomes a kind of rhythmic meditation, something both calming and comforting.

My moss lawn has become the single, greatest source of pleasure my garden has to offer. It is always presentable, a luminous oval of emerald, lime, peridot, and Kelly greens that sets off the wood phlox, hellebores, ferns, native azaleas, hollies, and other plants around it.

There is something wonderfully submissive in the act of inviting moss into the garden by preparing a place for it and then waiting for it to arrive on its own. It is an obeisance to nature that is rare in gardening. I made an all-or-nothing commitment and throughout that period when the lawn-to-be was an ugly oval of mud, I believed with all my heart—well, most of the time—in the moss to come.

That is the Zen of moss growing. I did not plant the moss. The moss came to me.

Carole Ottesen is a contributing writer for The American Gardener. This is an adapted version of an article she wrote for the magazine in 2003.

Sources
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Resources
Outstanding Conifers

This group of trees and shrubs is beautiful year round, but shines brightest in winter.

BY RITA PELCZAR

*Pinus flexilis* 'Vanderwolf's Pyramid' (USDA Hardiness Zones 3–7, AHS Heat Zones 7–1) develops a dense pyramidal habit when young, then becomes more flat-topped with age. This limber pine grows about 20 to 25 feet tall. Here, in a landscape designed by Twombly Nursery in Connecticut, it provides a dramatic backdrop for the berries of *Ilex verticillata* 'Afterglow'.
From spring through fall, conifers assume supporting roles in many gardens, providing a pleasing backdrop for displays of more colorful seasonal flowers and fruit. But conifers are an amazingly varied group of plants; many offer year-round interest and deserve prominent placement in a garden. These plants offer so much diversity and appeal, regardless of the season, that some gardeners devote entire beds to them. To help homeowners with selection, the American Conifer Society (ACS) has developed a series of public reference gardens to display conifer specimens (see “Conifer Reference Gardens,” page 30).

Whether you are a conifer connoisseur or not, once the weather turns cold and fair-weather flora provides minimal distraction, the range of colors, textures, and forms of these plants becomes vividly apparent. Conifers can transform a dull winter scene into one of breathtaking beauty.

Way Beyond Green
Most conifers bear cones—although yews and junipers produce fleshy cones that look more like berries—and are evergreen, that is, they retain their leaves throughout the year. But the range of their foliage color extends well beyond green—including shades of gray, blue, gold, and purple—and some selections are variegated.

While color is consistent throughout the year for some cultivars, winter’s cold accentuates the hues of others. The scalelike needles of Juniperus scopulorum ‘Gray Gleam’, for example, become a more intense silvery gray, while the grayish-blue foliage of the spreading Juniperus virginiana ‘Kosteri’ takes on a purple cast.

Pinus parviflora ‘Tani-mano-uki’—a dwarf Japanese white pine—is a particularly colorful selection recommended by Don Howse of Porterhouse Farms in Sandy, Oregon. It “grows as a low moundering shrub with striking white foliage surrounding coral-colored buds...the older, mature foliage from past years is grayish blue,” says Howse.

The cones or fruit of some conifers contribute additional color. The female cones of oriental spruce (Picea orientalis) start out reddish purple and mature to brown. Those of the deodar cedar (Cedrus deodara) are three to four inches long and soft blue-green. As they age, they turn reddish brown. The silvery-blue foliage of Juniperus virginiana ‘Grey Owl’, a female clone of the eastern red cedar, is embellished with an abundance of small, blue, fruitlike cones.

Texture and Form
Conifer textures are a study in contrast. While needles are the rule when it comes to conifer foliage, they range from the tiny scales of arborvitae (Thuja spp.) to the lanky, eight- to 18-inch needles of the long-leaf pine (Pinus palustris). Needles of the Colorado blue spruce (Picea pungens) are stiff and spiky, while the tiny scales of the Hinoki false cypress (Chamaecyparis obtusa) are arranged to form soft, flat fans.

From sharply pyramidal or tightly globose to gracefully weeping or low and spreading, conifer forms also run the gamut. Cultivar names such as ‘Compacta’, ‘Prostrate Beauty’, and ‘Globosa’ offer clues to the form. Some of the weeping selections, such as Cedrus atlantica ‘Glauc Pendula’, require staking in order to develop a strong leader.

Size Options
While many suburban yards are too small to include a full-sized Norway spruce (Picea abies) or deodar cedar, there are a number of varieties of these and other conifers with more compact habits that fit better in gardens with limited space.

‘Cedrus deodara’ used to be a very popular plant at the turn of the last century, and many large trees remain in the urban landscape,” says Flo Chaffin, past president of the ACS, Southeast Region, and owner of Specialty Ornamentals in Watkinsville, Georgia. Although the species is a great choice for gardens in the Southeast, smaller varieties are better suited to today’s landscapes. “Many new shrub and dwarf forms are now available to fit that niche, with colors from deep steel blues to bright yellows,” says Chaffin.

To help distinguish the little conifers from the big ones, the ACS has established four categories of conifers based on their rate of growth and size (in any direction). Miniatures grow less than one inch per year, and after 10 years are less than 12 inches. Dwarf conifers grow one to six inches per year and reach one to six feet after 10 years. Intermediates produce six to 12 inches of annual growth and attain a size of six to 15 feet after 10 years. Any conifer beyond that is considered large.

We asked several conifer experts to recommend cultivars for suburban landscapes in different parts of the country, with a focus on small- to medium-sized plants with exceptional winter appeal. Some of these are shown on the following pages. Additional recommended selections appear in the chart on page 29.

Rita Pelczar is a contributing editor for The American Gardener.
*Cedrus deodara* ‘Prostrate Beauty’ (Zones 7–9, 9–7) is one of several low-growing selections of the deodar cedar that fit nicely into smaller landscapes. It has blue-green needles and a distinctly horizontal habit, although it tends to develop an upright leader as it ages. It can be easily pruned, however, if a more spreading plant is preferred. It can also be grown in containers.

*Miss Grace*, a cultivar of the deciduous dawn redwood (*Metasequoia glyptostroboides*, Zones 5–10, 12–8), is a favorite of Susan Martin, retired curator of the Gotelli Dwarf Conifer Collection at the U.S. National Arboretum. “It has outstanding fall color and a very interesting winter silhouette. It becomes a narrow, small tree with time,” says Martin.

**Resources**


**Sources**


Above left: Despite this Nordmann fir’s variety name, *Abies nordmanniana* ‘Golden Spreader’ (Zones 4–6, 6–4) tends to grow upright, according to Don Howse, of Porterhowse Farms in Sandy, Oregon. “It can be pruned to form a spreading or horizontal plant, but it will eventually set an upright leader and become a golden-hued broad pyramid,” he says. After 20 years, a plant may be four feet tall with an equal spread at its base.

Above right: *Picea pungens* ‘The Blues’ (Zones 2–8, 8–1) is an excellent choice for carpeting the ground or hanging over a precipice, suggests Howse. “It is weeping and will appear like a blue cascade when staked to a few feet in height and then allowed to fall back to the ground,” he says. “The blue color remains throughout the entire year.”

### MORE CONIFEROUS WINTER BEAUTIES

<table>
<thead>
<tr>
<th>Name</th>
<th>Height/Spread (in feet)</th>
<th>Comments</th>
<th>USDA Hardiness, AHS Heat Zones</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Cedrus deodara</em> ‘Feelin’ Blue’</td>
<td>2/6</td>
<td>blue-green foliage, irregular spreading/cascading form can be used as a groundcover</td>
<td>7–9, 9–7</td>
</tr>
<tr>
<td><em>C. deodara</em> ‘Devinely Blue’</td>
<td>5/5</td>
<td>blue-green foliage with drooping branches, irregular upright habit</td>
<td>7–9, 9–7</td>
</tr>
<tr>
<td><em>Cephalotaxus harringtonia</em> ‘Prostrata’</td>
<td>2–3/4</td>
<td>dark green foliage, new foliage is lime green; low arching branches</td>
<td>6–9, 9–3</td>
</tr>
<tr>
<td><em>Chamaecyparis obtusa</em> ‘Crippsii’</td>
<td>25–50/25</td>
<td>strong gold foliage in full sun, broadly pyramidal specimen tree</td>
<td>4–8, 8–1</td>
</tr>
<tr>
<td><em>Cryptomeria japonica</em> ‘Elegans Nana’</td>
<td>6/4</td>
<td>dark green foliage, develops a lumpy, irregular mound, good choice for rock gardens</td>
<td>6–9, 9–4</td>
</tr>
<tr>
<td><em>C. japonica</em> ‘Globosa Nana’</td>
<td>2–3/3–3½</td>
<td>blue-green foliage becomes reddish in winter, dense mounded form</td>
<td>6–9, 9–4</td>
</tr>
<tr>
<td><em>C. japonica</em> ‘Gyokuryu’</td>
<td>8/6</td>
<td>very dark green foliage, dense and broadly pyramidal</td>
<td>6–9, 9–4</td>
</tr>
<tr>
<td><em>Juniperus scopulorum</em> Sky High™</td>
<td>12–15/3–5</td>
<td>silvery blue foliage, dense columnar form, provides strong vertical accent</td>
<td>3–7, 7–1</td>
</tr>
<tr>
<td><em>Juniperus virginiana</em> ‘Glaucu Compacta’</td>
<td>10/5</td>
<td>blue-green foliage, compact small tree, good for containers</td>
<td>4–9, 9–1</td>
</tr>
<tr>
<td><em>J. virginiana</em> ‘Hancock Weeping’</td>
<td>25–30/8–10</td>
<td>medium-sized tree with distinctly pendulous branches</td>
<td>4–9, 9–1</td>
</tr>
<tr>
<td><em>Picea abies</em> ‘Little Gem’</td>
<td>1½/3–6</td>
<td>rich green foliage with flat-topped globe shape, good for rock gardens</td>
<td>3–8, 8–1</td>
</tr>
<tr>
<td><em>Thuja orientalis</em> ‘Morgan’</td>
<td>3/2</td>
<td>chartreuse-yellow foliage in summer, turns coppery orange in winter; neat, compact, upright habit</td>
<td>5–8, 9–6</td>
</tr>
<tr>
<td><em>Thuja plicata</em> ‘Pygmaea’</td>
<td>2–2½/2–3</td>
<td>blue-green foliage, irregular branching with dense compact form</td>
<td>6–8, 8–6</td>
</tr>
</tbody>
</table>
**CONIFER REFERENCE GARDENS**

The best way to decide which conifers you want to add to your garden is to see them growing in a landscape setting where the conditions are similar to yours. With this in mind, the American Conifer Society has established a series of “Conifer Reference Gardens” in different regions of the country to educate the public about growing conifers in their specific geographic region, to introduce the public to new varieties of conifers, and to demonstrate the ways conifers can be used in home landscapes.

To qualify as a reference garden, the garden must be open to the public and must include a minimum of 30 different conifers representing at least eight genera. The conifers must be properly maintained and accurately labeled. Through these displays, gardeners can compare varieties and easily identify ones of interest. For more information about the American Conifer Society and its reference gardens, visit www.conifersociety.org. —R.P.

**Northeast**
Graver Arboretum, Bath, Pennsylvania
Wellesley College Botanic Gardens, Wellesley, Massachusetts
*Scott Arboretum at Swarthmore College,
Swarthmore, Pennsylvania
*Massachusetts Horticultural Society at Elm Bank,
Wellesley, Massachusetts

**Southeast**
Atlanta Botanical Garden, Atlanta, Georgia
East Tennessee State University Arboretum,
Johnson City, Tennessee
JC Raulston Arboretum, Raleigh, North Carolina
Lewis Ginter Botanical Garden, Richmond, Virginia
Lockery Arboretum, Milledgeville, Georgia
Smith-Gilbert Gardens, Kennesaw, Georgia
South Carolina Botanical Garden, Clemson, South Carolina
State Arboretum of Virginia, Boyce, Virginia
State Botanical Garden of Georgia, Athens, Georgia
University of Tennessee Gardens, Knoxville, Tennessee
University of Tennessee, West Tennessee Research and Education Center Gardens, Jackson, Tennessee

**Central**
Hidden Lake Gardens, Tipton, Michigan
Rowe Arboretum, Indian Hill, Ohio

**West**
The Oregon Garden, Silverton, Oregon

*Gardens currently in development

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*Pinus virginiana 'Wate's Golden' (Zones 5–10, 10–1) is “one of many 'wintergold' pines that are green throughout the growing season and turn golden in the winter,” says Martin. “They really add a spot of golden color to the sometimes dreary winter landscape.” It can grow up to 30 feet tall with a 20-foot spread.

*Juniperus virginiana 'Grey Owl' (Zones 3–9, 9–1) is a wide, spreading shrub with silvery-blue foliage that tolerates dry soil. “A female clone, the plants are loaded with beautiful small blue cones,” says Martin.
Chamaecyparis obtusa 'Nana Gracilis' (Zones 4–8, 8–1) grows to about 10 feet tall and develops a dense pyramidal habit. "The plant just looks expensive," says Bill Thomas, executive director of Chanticleer garden in Wayne, Pennsylvania, who adds that it is slow-growing and gets better and better with age. "Most C. obtusa cultivars are delightful," Thomas says.

'Lemon Thread' false cypress (Chamaecyparis pisifera, Zones 4–8, 8–1) grows five to six feet tall with a slightly greater spread. Although it has an upright habit, its branches droop gracefully downward. Its yellow coloring develops best in full sun.

Don Howse considers Pinus mugo 'Jacobsen' (Zones 3–7, 7–1) to have a "natural bonsai style." He says, "While many selections of mugo pine are low and dense mounds, this plant has character and allows the interior framework to be visible. The rich, dark green needles are short and dense on the ends of the contorted branches." A 20-year-old plant may reach 18 inches at its highest point, with a three-foot spread.
What you do and, more importantly, do not do in your garden now can help winterize plants and preserve habitat for wildlife through the colder months.

Unless you live in a warm region where gardening continues pretty much year round, your garden needs a bit of pre-winter care to prepare for the coming months. Standard fall to-do lists usually include pulling up annuals and emptying out containers, cleaning up perennial and vegetable beds, and gathering fallen leaves. However, there are some things that are better left undone. While tidiness is generally a virtue, overzealous cleaning can result in not only a visually bleak and uninviting winter landscape, but also less of the natural food and shelter sources that wildlife need to survive the coldest months.

Taking a more relaxed approach to winterizing the garden has numerous benefits, such as preserving soil structure, improving plant health, and creating a more hospitable place for wildlife. It only takes minimal effort to yield maximum results. By making the following refinements to your end-of-the-season routine, you can turn your garden into a welcoming place for wildlife throughout winter without causing the neighbors to call the weed ordinance enforcement department.

Cut Back on Cutting Back
While winterizing chores should include clearing out garden debris, you needn’t remove every last scrap, and as Tracy DiSabato-Aust writes it in her book, The Well-Tended Perennial Garden, “what a bore it would be to try.” Instead, focus on waiting until late in the season to cut back ornamental grasses and other perennials helps them overwinter and provides wildlife habitat.
any diseased or damaged vegetation, but leave other plant remains in place to provide protection against freezing temperatures. It may not seem like much, but this can make a big difference, especially for tender plants.

“Marginally hardy perennials, such as ‘Mönch’ aster (Aster × frikartii ‘Mönch’), tender ferns, or mums,” explains DiSaba-to-Aust, “benefit from leaving the old foliage on the plants to provide insulation for the crowns during cold weather.” She also points out that certain late spring-emerging plants, such as leadwort (Geratostigma plumbaginoides) and scarlet hibiscus (Hi-
biscus coccineus) are better left as reminders that “something is growing there, ensuring that the soil isn’t disturbed or something else isn’t planted in its space while it’s taking its time awakening from the winter.”

Carole Brown, a conservation biologist and ecosystem garden designer in Philadelphia, also advocates leaving grasses and seed heads standing through winter. “Many butterflies and other insects spend the winter in these plant stalks. By removing them you are throwing away next year’s beneficial insects,” she says. If you must cut back your plants, Brown recommends using the cuttings as mulch on garden beds so that insects and other wildlife can complete their life cycle and emerge safely in the spring. When pruning, keep an eye out for obvious egg cases attached to stalks and branches; those of praying mantises are easy to identify, for instance, because they are irregular brownish-gray masses that resemble foam insulation.

Birds will also appreciate the cover provided by plants left standing, and they will use last season’s remaining garden materials to make nests in spring. Plus the attractive seed-laden heads remaining on many flowering plants lure in seed-eating birds.

Ellen Sousa, a garden coach and writer who lives in a “cold, snowy valley of southern New England where we often don’t see the ground until well into March,” says that “instead of doing the traditional fall scalping of perennial beds, we leave tall plants such as coneflowers, agastache, asters, and ornamental grasses standing right through winter. Their seeds feed overwintering birds such as juncos, chickadees, and song sparrows when snow has buried most other natural food sources.”

Bird-friendly seed heads include black-eyed Susans (Rudbeckia spp.), sedums, coneflowers (Echinacea spp.), and cosmos. Many of these plants also lend architectural interest and texture to the winter landscape. For example, some sedums flaunt showy deep-red seed heads. Purple coneflower (Echinacea purpurea) produces striking, cone-shaped seed heads that turn black as seeds mature. River oats (Chasmanthium latifolium) are dressed in seed heads that turn from green to a bronzy beige in the fall.

Resources
American Horticultural Society New Encyclopedia of Gardening Techniques
Bringing Nature Home: How Native Plants Sustain Wildlife in Our Gardens

Gardens, like this one, that include a mix of trees, shrubs, perennials, and grasses will serve a greater diversity of wildlife.
that deciduous trees drop in the autumn are a windfall in more ways than one. It always astounds me to see homeowners consigning big bags of leaves to the dump or raking all their leaves to the street for municipal crews to vacuum up; leaves are such a valuable resource! They form an insulating blanket that will keep the soil temperature more constant, improve soil structure, feed beneficial microorganisms, and protect plants from the cold. So if you rake leaves off your lawn or other areas, be sure to spread them under shrubs, tuck away a few small piles in the back corners of your yard, or add them to the compost bin—either whole or shredded. Otherwise, leave them where they fall and they will naturally break down over time.

“Many butterfly larvae overwinter in these leaves, along with spiders and beneficial insects,” Brown explains. “Leaves also provide cover and shelter for frogs, toads, salamanders, and other wildlife.” Resident songbirds will benefit as they pick and scratch around in the leaves looking for insect eggs and caterpillars. I always let some leaves loiter on the outskirts of our courtyard garden for a group of chickadees that come looking for a tasty winter meal.

In some parts of the country, a leafy blanket is essential for protecting dormant plants against extreme temperatures. “Here in northern Colorado, winter temperatures can fluctuate as much as 70 degrees in one day, especially in February and March,” says Pat Hayward, horticulturist and executive director of Plant Select, an award program supported by a coalition of universities and industry groups. “With our dry climate and cold winters, leaving leaves actually helps protect us from these large temperature changes.”

There are a couple of exceptions to the practice of allowing leaves to stay where they fall. One is if you have large, flat leaves from trees such as maples, oaks, and sycamores. These should be cleared from garden beds because they can form a mat that will smother small or delicate plants. You can still use these leaves as mulch—just put them through a shredder or run over them with a lawnmower before applying them to a bed. And if you have an area where you want to start a new bed, you can spread these large leaves there to help kill turf or weeds and make way for your new plot. The second is if you live in a region where crown rot is a problem; you may need to remove leaves altogether from perennial beds because they will retain too much moisture.

**MORE WAYS TO SUPPORT WILDLIFE IN WINTER**

- Include a diversity of vines, perennials, shrubs, and trees of different heights, which provides a complete package of food, shelter, and nesting sites.
- In addition to berried shrubs and trees, include plenty of evergreens, such as juniper, pine, hemlock, and rhododendron.
- Add a few well-placed feeders and nest boxes for non-migrating birds.
- Build a brush pile with tree and shrub trimmings in out-of-the-way areas of your yard. Top it off with a layer of evergreen branches for added protection in colder climates. Birds, small mammals, reptiles, and amphibians all will appreciate this safe haven.

**Plants with berries, such as Virginia creeper (Parthenocissus quinquefolia), are a valuable food source for many garden denizens during the winter.**

**MUCH ADO ABOUT MULCH**

If you don’t have deciduous trees in or near your yard to provide leaves, you can use...
other organic material such as grass clippings, bark chips, and compost to help insulate the roots of woody plants and perennials. In places that experience freezing temperatures, hold off on mulching until you have had a couple of hard freezes to help reduce pests and diseases.

The idea is not to “prevent the soil from freezing” but to prevent it from alternately freezing and thawing,” explains Barbara Damrosch, an organic market gardener in Harborside, Maine, and author of The Garden Primer. It's this alternate freezing and thawing that is most detrimental to overwintering plants. “Have you ever noticed how food becomes mushy if you repeatedly thaw and refreeze it? Something similar can happen to plant roots, and the freeze/thaw cycle can also break them and heave them out of the soil,” adds Damrosch. This is particularly true for marginally hardy species in your region or recently planted ones that haven’t had enough time to get a strong root system established.

In some regions, snow cover also helps protect plants from weather extremes. “We leave plants standing into winter not only to supply a food source for birds, but also to allow tall stems to capture the blowing snow,” says Sousa. “It’s like a thermal coat for roots, slowing down plants that might emerge from dormancy during mid-winter thaws.”

Damrosch likes to use evergreen boughs as a winter mulch in her garden because they “don’t lie flat on the ground, but catch the snow beneath them and hold it there as a protective blanket.” She waits until the ground is frozen to put them down, which means that “boughs from discarded Christmas trees, available at just about the right time in the season, are a great resource and are easy to remove in spring.”

There’s no harm in tidying up a bit and otherwise readying your garden for winter, but keep in mind that sometimes doing less pays bigger dividends in the long run. And if you want to encourage wildlife to visit, now is the time to set out the winter welcome mat.

Kris Wetherbee is a regular contributor to The American Gardener. She and her husband, Rick, garden in Oakland, Oregon.
INTER unquestionably puts a chill on gardening at my home in Connecticut, where temperatures drop well below freezing for weeks at a time. As the days get shorter and colder, I make a sincere effort to appreciate the season’s subtle palette of buffs, browns, and russets, but I still yearn for more. This is the time of year when the “bones” of a garden—shrubs, trees, and rocks—are better appreciated if knit together by colorful company at ground level. In my often-losing race to clean up before snow starts falling, however, I have noticed that a surprising number of herbaceous plants originally planted for summer interest retain their color—not necessarily green—long into winter. By the time these stalwarts are looking worn out late in the season, many other ground-layer plants are ready to spring forth.

Herbaceous plants with cold-season interest usually last through winter or emerge early, rarely both. “Plants most apt to be evergreen come from areas with dry winters, from the Mediterranean, western America, and the steppes of Asia, from places that have sun all winter,” explains Panayoti Kelaidis, director of outreach and senior curator at the Denver Botanic Gardens in Colorado. “Many of our traditional border plants come from wet and cold places, or from the high Alps where they are covered with snow,” he says. “They have no reason to be evergreen.”

Whether your region experiences mild or severe winters, lots of snow or none at all, there is a wealth of herbaceous plants that will tie the garden together and prove to be more than just fair-weather friends.

Winter Stalwarts

ARTICLE AND PHOTOGRAPHS BY KAREN BUSSOLINI

When designing a four-season landscape, find a place for some of these tough herbaceous plants that take center stage when their counterparts are off for the winter.

Enhanced by a kiss of frost, rock cress (Arabis procurrens) and red-stemmed Euphorbia dulcis ‘Chameleon’ are among the many perennials that retain their good looks well into winter.
LONG-LASTING OPTIONS
Most evergreen or semi-evergreen herbaceous plants won’t be ready for close-up portraits after enduring heavy snow, several freeze-thaw cycles, and cold winds, but they still provide appeal in one way or another. There are spikes and mounds, rounded leaves, and linear ones, soft and hard textures. There are groundcovers and upright plants, plants that blend and those that contrast, darks and lights, and color echoes. Nestled around rocks, hanging over walls, and making jazzy combinations with each other, these plants make a garden pleasing to look at from indoors and provide a good excuse to go outside for a closer look and a satisfying bit of snipping on a milder winter day.

In my garden, many silver-hued plants persist. For example, clumps of lamb’s ears (Stachys byzantina, USDA Hardiness Zones 4–8, AHS Heat Zones 8–1) and ’Six Hills Giant’ catmint (Nepeta ×faassenii, Zones 3–8, 8–1) on the protected sunny slope close to my house sail past December fresh and fuzzy. For a touch of sunshine all the way to spring, I depend on the yellow fans of golden dwarf sweet flag (Acorus gramineus ‘Ogon’, Zones 6–9, 9–5), ‘Golden Sword’ and ’Bright Edge’ yuccas (Zones 4–11, 12–5), and Bowles’ golden sedge (Carex elata Aurea’, Zones 5–9, 9–3).

Purple wood spurge (Euphorbia amygdaloides Purpurea’, Zones 6–9, 9–2) is a quiet star most of the year for me, but in winter its upright, almost architectural mounds of blue-green foliage turn deep burgundy with red stems. It can look a bit forlorn toward spring, but new growth emerges early, along with chartreuse bracts and bright yellow flowers. Anthriscus sylvestris ‘Ravenswing’ (Zones 7–10, 10–1) and various Ajuga, Heuchera, Sedum, and Sempervivum cultivars continue the purple/burgundy theme, contrasting nicely with the golds and silvers.

Greens round out the color palette. Rock cress (Arabis procurrens, Zones 3–7,
8–1) keeps its shiny rosettes year-round and sends up clouds of white blossoms very early in spring, Digitalis lutea (Zones 3–8, 8–1), white-striped Carex 'Ice Dance,' mottled Allegheny spurge (Pachysandra procumbens, Zones 5–9, 9–3), and marbled Arum italicum (Zones 6–9, 9–3) remain evergreen. Lenten roses (Helleborus × hybridus, Zones 6–9, 9–6) stay dark glossy green until flower stalks emerge in late February, at which point I cut them back to let flowers take center stage. The finely cut leaves of stinking hellebore (H. foetidus, Zones 6–9, 9–6) often get winter burn, but seen from a distance, their chartreuse bracts and blooms glow against dark green foliage, however spotted.

**RELIABLE REGIONAL FAVORITES**

When I compared notes with gardeners from other regions, everybody had at least a handful of reliable options, and winter reliability ran in families. Locally adapted penstemons, ajugas, epimediums, dianthus, and various ferns were noted coast to coast, north to south. Whatever the region, grasses and sedges, plants with tough, leathery foliage, hardy succulents, herbs, and silver plants appear to be good winter performers.

Garden blogger Kathy Purdy, who lives in “the North Pole of Broome County” in Upstate New York, says plants with fall color that keep their good looks under snow and emerge intact during thaws are key. One of her favorites is Bergenia 'Lunar Glow', which “looks very yellow-green in summer, but come fall when temperatures drop, it turns a glowing red. The leaves stay pretty all winter,” she notes.

In the upper Midwest, “winters are so severe that anything that survives is a surprise, a success, a little treasure,” says Richard Hawke, plant evaluation manager at the Chicago Botanic Garden. He values Geranium macrorrhizum (Zones 4–8, 8–1) cultivars with varied green to burduny to vivid red winter stems and leaves, a persistent pungent scent, and vigorous early revival that coincides with spring bulbs. Hawke notes that the mottled leaves of Ivory Prince hellebore (Helleborus 'Walhelivor') emerge from snow cover unscathed and often Iris tectorum (Zones 5–9, 9–3) looks good throughout winter.

Some perennials, such as Geranium macrorrhizum, top, and Sedum 'Angelina', above left, not only hold up well for much of the winter, but also quickly put on new growth to complement early bulbs. Above right: Blue Reflection® creeping speedwell and Yucca harrimaniae take ice and snow in stride at High Country Gardens in Santa Fe, New Mexico.
Joy Creek Nursery owner Maurice Horn brightens his drizzly, dark Oregon winters with eriogonums, hellebores, di- anthus, silver-leafed Cyclamen hederifolium (Zones 5–7, 9–7), and penstemons. Fine-textured evergreen grasses, such as the steely-blue Idaho fescue (Festuca idahoensis, Zones 4–10, 10–4), and semi-evergreen muhly grasses provide a lot of interest, too. Horn especially likes densely tufted pine muhly (Muhlenbergia dubia, Zones 7–10, 10–7), which he describes as “a mix of old and new, tawny and green at the same time.”

“You can’t go wrong with any creeping thyme or phlox—some stay green, some turn purplish,” says Kelaidis from Denver Botanic Gardens. He also likes succulent sempervivums and sedums, “especially Sedum ‘Angelina,’ which turns electric orange and isn’t too thick, so bulbs can come up through it.” As for grasses, “the queen is little blue stemmed, which turns deep rose-red here in winter.”

A champion of xeric plants for the West, David Salman of Santa Fe Greenhouses in New Mexico, gardens at a 7,000-foot elevation. For winter interest, he relies on evergreen groundcovers from dry alpine regions—such as spring-blooming Veronica pectinata (Zones 2–7, 7–1) and V. oltensis (Zones 4–9, 9–4)—and tough, sculptural agaves and yuccas. Mat-forming hardy ice plant Delosperma ‘Lesotho Pink’ turns lightly bronze for the winter, while D. ashtonii ‘Blut’ (Zones 6–9, 9–6) turns reddish, creating a colorful backdrop to early bulbs that grow up through its loose form.

**EARLY RISERS**

As soon as days get noticeably longer in late winter, an array of super-early plants springs up. These welcome early-risers—for me, golden feverfew (Tanacetum parthenium ‘Aureum’, Zones 4–9, 9–1) and corydalis are among the earliest—give color and context to the first bulbs and offer new possibilities when the stalwarts are at their worst. Grape hyacinths (Muscari spp.) not only provide a grassy texture in winter, they also light up the landscape with their early blooms. Their purple to blue flowers look stunning scattered among the ruby-red spears of emerging...
peonies or poking up through a mat of golden creeping Jenny (Lysimachia nummularia ‘Aurea’, Zones 4–8, 8–1) for some vivid early color. Ferny new astilbe leaves match the peonies’ hue while adding a contrasting texture, with lady’s mantle (Alchemilla mollis, Zones 4–7, 7–1) rounding out the combination in fresh green tones.

Steve Ruce, owner of Heliotrope Garden Design in Minnesota, says his latest-blooming perennial is surprisingly the first up. Blooming into November, monkshood (Aconitum carmichaelii, Zones 3–8, 8–3) turns to mush at about 27 degrees Fahrenheit, but its leathery basal foliage forms dark green spreading clumps early. “It’s so luxurious to see all that foliage surface as soon as the soil thaws,” he says. Ruce grows thousands of daffodils, marking their locations with monkshood clumps. Then he snuggles in long-lasting European ginger (Asarum europaeum, Zones 4–8, 8–1) and early-emerging mayapples (Podophyllum peltatum, Zones 3–9, 8–2), whose large, rounded umbrellas contrast with and later conceal strappy bulb foliage. Also “old-fashioned, super-hardy, edible rhubarb makes a perfect combination for three or four weeks with daffodils,” he adds. “There’s a reddish tinge as rhubarb leaves come up and a wrinkling that unfolds into the mature leaf, which is very structural and architectural-looking.”

“We’re very excited about anything that comes up quickly,” says Hawke of Chicago Botanic Garden, including bleeding heart (Dicentra spp.), lady’s mantle, and Arum italicum. He says Heuchera ‘Purple Petticoats’, ‘Palace Purple’, ‘Obsidian’, and especially ‘Color Dream’ may remain presentable if there has been snow cover, and new growth emerges quickly in spring, covering the old—perfect companions for masses of tiny early bulbs.

Stachys lavandulifolia (Zones 5–7, 7–5) and Symphytum grandiflorum ‘Hidcote Blue’ (Zones 4–7, 7–1) push up very early for Salman in New Mexico. These plants are “outstanding with Scilla, Narcissus, Hyacinthoides, and other early bulbs,” he says.

Garden designer Andrew Durbridge planted barrenworts (Epimedium ×rubrum) as a groundcover under an allée of ‘Heritage’ river birch (Betula nigra) in his yard, forming a carpet of reddish-mahogany color that lasts throughout winter.

MAKING THE MOST OF WINTER GARDENS

With fewer plant choices, design becomes critical. “Winter gardening is about setting scenes,” explain Barbara Kam and Nora Bryan in The Prairie Winterscape: Creative Gardening for the Forgotten Season. The authors stress integrating winter gardens into the overall design, paying attention to repetition, contrast, focal points, mass, texture, shape, color, balance, and proportion as in any season. For year-round interest, they suggest planting about one-third evergreens, one-third deciduous shrubs and trees, and one-third annuals and perennials, especially those that keep some color after frost and “die well.”

Horticulturist Geoff VonBurg at the Indianapolis Museum of Art suggests gardeners “keep it neat and simple by limiting the number of plant species and selecting plant combinations that follow each other.” In front of big groups of shrubs, he likes to plant simple combinations such as Helleborus foetidus and Epimedium versicolor var. sulphureum (Zones 5–9, 9–4) in edged beds to carry through winter. He cuts back early-blooming epimediums in late February, after which winter aconites (Eranthis hyemalis, Zones 4–9, 9–1) and native spring ephemerals such as lungworts (Pulmonaria spp.), Virginia bluebells (Mertensia virginica, Zones 3–7, 7–1), and bloodroot (Sanguinaria canadensis, Zones 3–9, 9–1) “get up early for us and give us some color.”

I advise comparing notes with other gardeners in your area and visiting public and private gardens to find out what plants persist or pop up early where you live. You may be surprised how many survivors can be combined in your own garden. Also, observe where your warm microclimates and protective structures foster these plants, and take advantage of their shelter.

With so many options for adding winter interest no matter where you live, it’s possible to create an engaging garden that lasts the entire year. Regardless of the season, “the more you can create a garden that’s appealing, the more apt you are to be in it,” notes Kelaidis. And a stroll through the garden to marvel at the plants that take winter’s chill in stride is one of the best remedies I know for cabin fever.

Photographer and writer Karen Bussolini gardens in South Kent, Connecticut.
ONE ON ONE WITH...

David Karp: Intrepid Fruit Detective

by Patrick Morgan

Whether he’s writing his weekly column—Market Watch—about farmers markets for the Los Angeles Times, visiting with organic farmers around the country, or looking for a midnight snack, David Karp enjoys “unraveling the complex interaction of factors that influence fruit quality—variety, environment, horticultural practice, ripeness at harvest, and postharvest treatment.” To him, “fruit at its best is one of life’s great pleasures, beautiful, sweet, flavorful, in limitless types and varieties, many of them with colorful origins and traditions.” And he should know about variety, having gone from Wall Street trader to punk rock producer to self-dubbed fruit detective in the past 30 years.

Karp’s interest in fruits takes him around the world, including Yunnan Province in China, where he co-founded the Chinese Citron Germplasm Repository. When he’s not writing about fruit, he’s usually working on one of many projects, such as one for the University of California at Riverside’s Citrus Variety Collection, for which Karp and a colleague photograph and document more than 1,000 kinds of citrus trees. He is also a strong advocate of small, artisanal fruit-growing farms, an alternative to what he calls “corporate ‘fast fruit’.”

Editorial Intern Patrick Morgan caught up with Karp to plumb his thoughts on the best and worst fruits, how to ensure the survival of heirloom fruits, and what fruits are deserving of more widespread cultivation.

Patrick Morgan: What ignited your passion for fruit?
David Karp: I came to love fruit as a child in Los Angeles, by eating apricots from a tree in the yard of my beloved Aunt Elly. Later my enthusiasm for fruit cross-pollinated with other loves. But I would not claim that my passion for fruit truly blossomed until I started writing about the subject for The New York Times in 1992.

You’re a fruit hunter, fruit detective, fruit writer—with so many titles, what’s your typical day like?
When I’m on the road researching fruit I arrive at an orchard before dawn to catch the best light for photography, and spend the day driving to and visiting with three or four farmers, scribbling notes and recording interviews. But for every day on the road I probably spend two organizing the trip beforehand, and afterwards editing photos and transcribing notes. I go to several farmers markets a week, buying, making notes, and taking photos. When I’m writing articles I typically listen to Baroque music—Corelli and J.S. Bach are favorites.

You’ve said with its “atom bomb of flavor,” the greengage plum is your favorite fruit. What’s your second favorite?
My co-favorite fruit, along with greengage plums (which are really several closely related varieties) is the Snow Queen white nectarine. Its dense, buttery white flesh offers a pleasant snap or resistance to the teeth, but the flesh melts in your mouth. It has a perfect balance of sweetness and acidity, and a very intense, complex flavor. It has the wild nectarine tang that is so often lost in modern varieties of that fruit, and a lingering aftertaste. It cracks, it bruises, it ripens unevenly on the tree, but it tastes so darn good that it’s hard to eat any other fruit in its season—mid-June to early July in California’s San Joaquin Valley.

Are there any fruits you avoid?
I can’t stomach the notoriously stinky durian [from southeast Asia]. I have not yet developed a taste for papaya or feijoa (pineapple guava). I find kiwanos [a...
It seems like you want to create a fruit connoisseurship that rivals the wine industry. What is your vision for the world’s fruit-friendly future?

1) More people know the difference between great, good, and mediocre fruit. 2) Farmers are paid for producing fruit with good eating quality, not just for large, colorful, long-storing varieties. 3) Stores identify all fruit by variety, not just apples and pears and a few other kinds, and also by growing area. 4) Stores hire produce buyers and managers who actually know something about produce, rather than corporate zombies who regard fruits as fungible widgets. 5) More people buy produce at farmers markets directly from real farmers—not the peddlers who have proliferated in recent years, in California at least, cashing in on the cachet of “locally grown” food.

Of all the work you’ve done promoting heirloom fruit varieties, what is the most important in ensuring their survival?

The most important thing I’ve done to help preserve older varieties is to write about them, so that farmers grow them and customers buy them.

How can gardeners help protect and enjoy heirlooms and unusual fruit?

Backyard growers can plant fine old varieties, but also very important, they can tell their congressperson to support the land grant university and farm advisor system that has served the United States so well over the past century. This system is gravely imperiled by shortsighted budget cuts. Increasingly, only large farms can afford the consultants, technology, and proprietary germplasm to remain competitive.

If you live near a germplasm repository, consider volunteering, as I did and still do; it’s a unique opportunity to learn about (and devour) fruit. Join an organization, such as the Rare Fruit Council International (www.rarefruitnews.org) suited to your interests and growing area.

Among fruits that are native to the United States, which are deserving of more widespread cultivation or use?

Most are berries. Hybrid blackberries such as boysenberry and marionberry are noble fruits—large, dark purple, juicy, and intense, with a winy tang. These are grown commercially mainly in the Northwest.

The Virginia strawberry (Fragaria virginiana), one of the parents of the common strawberry, is small and soft but exquisitely aromatic and worth further selection and cultivation in home gardens.

The suitability for cultivation of various wild Vaccinium species, such as European blueberry (V. myrtillus) and Cascade bilberry (V. deliciosum), is under study in the Northwest. Other native fruits worth mentioning include beach plums (Prunus maritima), pawpaws (Asimina triloba), and American persimmons (Diospyros virginiana).

Patrick Morgan is an editorial intern for The American Gardener.
Popcorn Perfection

by Kris Wetherbee

I grew up in a family of popcorn lovers. Every night after dinner we took turns popping corn on the stove. No doubt we ate more than our share of the national annual average of 68 quarts of popcorn per person. And we preferred it dressed lightly with salt and butter.

Store-bought popcorn popped in the microwave is how most Americans now consume this delicious treat, but I still find more satisfaction in growing my own and preparing it the old-fashioned way. If you have never grown popcorn before, it’s easy to do and can be a fun project for kids.

Growing Guidelines

Popcorn is one of thousands of corn (Zea mays) varieties. It differs from standard sweet corn primarily in that its kernels have a harder hull and a dense, starchy filling. When popcorn is heated, moisture in the starch vaporizes, causing the kernels to explode inside out. Specific varieties (see next page for recommendations) play a role in popcorn quality, taste, and poppability, but equally important is how the popcorn is grown, harvested, and seasoned.

Popcorn thrives in the same growing conditions as sweet corn: full sun and deep, fertile, well-drained soil. While popcorn grows best in regions with hot summers, it can be grown successfully where summers are cool or the growing season is short, but be sure to wait until the soil temperature has warmed to at least 60 degrees Fahrenheit before planting.

Start popcorn seeds in a smooth seed bed enriched with plenty of compost or aged manure. Follow up with a high-nitrogen fertilizer (from composted manure, fish meal, alfalfa meal, or other organic sources) every two to four weeks, or a foliar spray every seven to 14 days until the corn begins to form tassels—the silky inflorescences at the top that release pollen.

Be sure to water plants regularly and deeply, especially when the stalks begin to form tassels. Using drip irrigation or soaker hoses works best. Mulch with compost or composted manure around plants to conserve moisture and prevent

Like standard sweet corn, ears of popcorn are ready to harvest when the silks turn brown.

Planting Basics

Getting Started

Where spring weather is damp and cool or the growing season is short, start seeds in two-inch pots and transplant the seedlings to the garden when they reach about three inches tall.

Corn is wind-pollinated, so for full, well-filled ears, plant popcorn in blocks of four to six rows rather than individual long rows to increase pollen contact between plants.

If you grow both popcorn and sweet corn, avoid cross-pollination, which can result in tough, starchy sweet corn. You can do this by distance (minimum 250 feet separation), planting time (sow two weeks apart), or maturity date (a 90 day variety with a 120 day variety).

Direct Seeding

Sow seeds directly in the ground once the soil temperature is consistently 60 degrees Fahrenheit. Sow seeds at two to three times the depth of the seed, from a half to one-and-a-half inches deep, with two to three seeds per hole.

Spacing

Space corn tightly, sowing seeds or placing transplants every six to 10 inches depending on the variety, with rows spaced about 12 to 18 inches apart. Thin to one plant per hole when seedlings reach about five inches tall.

Days to Maturity

85 to 110 days from seed, depending on the variety and growing conditions. Subtract seven to 10 days for transplants.
weeds. Water less frequently once the ears have filled out. This will help produce the best yields and quality of popcorn.

**RECOMMENDED VARIETIES**

Popcorn varieties are not limited to kernels of yellow or white. Options also include blue, pink, mahogany, and mixed. If you have a short growing season, opt for varieties that mature in under 100 days, such as ‘Tom Thumb’ (85 days), ‘Early Pink’ (85 to 90 days), or ‘Calico’ (90 to 100 days). For tenderness and a distinct nutty flavor, try ‘Japanese Hulless’, ‘Early Pink’, or ‘Miniature Blue’. ‘Strawberry’—so named for its small, mahogany-colored pinecone-shaped cobs resembling strawberries—is a tender and slightly sweeter variety.

**PEST AND DISEASE PREVENTION**

Corn earworms often find popcorn appetizing (the variety ‘Strawberry’ has shown some resistance). In some areas, corn borers are a problem. Use Bt (Bacillus thuringiensis), a biological control that is toxic to caterpillars, to help control or prevent either pest. Corn borers can also be controlled with an organic insecticide containing pyrethrum.

To prevent pest invasions or diseases from occurring, remove all popcorn stalks and debris from the garden after harvest. Also rotate corn-planting areas on a three-year cycle.

Deer and raccoons love corn. To deter them, try fencing or repellents.

**ENJOYING THE HARVEST**

Popcorn is ready to harvest when the silk turns brown and the kernels are hard, glossy, and well colored. Leave corn on the stalks as long as possible, allowing the kernels to dry naturally. If the weather is damp or frost threatens, harvest the ears, peel back the husks, and bring them inside to cure in a dry and ventilated location such as a shed or garage. Drying time can vary from one week to several months, depending on weather conditions.

When the kernels come easily off the cob, test the popcorn by popping a few kernels. (To pop, put kernels or an ear in a folded paper bag in the microwave oven.) If the kernels pop, it’s time to shell the corn. To shell, roll the kernels from the cob with your hand, pushing firmly with your thumb.

Store the shelled corn in an airtight container in a cool, dry location. Avoid storing popcorn in a warm location or in the refrigerator, which can dry out the kernels and render them unpoppable. You may be able to revive kernels that have become too dry, however, by adding a tablespoon of water per quart of popcorn. Shake or stir the kernels until the moisture is absorbed, close up the container, and try popping again in a few days.

_A regular contributor to The American Gardener, freelance writer Kris Wetherbee lives in Oakland, Oregon._

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**Sources**

Johnny’s Selected Seeds, Winslow, ME. (877) 564-6697.  
[www.johnnyseeds.com](http://www.johnnyseeds.com).

Seeds of Change, Spicer, MN.  (888) 762-7333.  
[www.seedsofchange.com](http://www.seedsofchange.com).

Territorial Seed Company, Cottage Grove, OR. (800) 626-0866.  
[www.territorialseed.com](http://www.territorialseed.com).
TURNING GRAY TO GREEN IN SAN FRANCISCO

Like the 1960s Mamas and the Papas song urges, wearing flowers in your hair while in San Francisco may be getting easier, thanks to Jane Martin. The founder of Plant*SF—or Permeable Landscape as Neighborhood Treasure in San Francisco—Martin, an architect by training, promotes replacing excess city pavement with plantings to not only re-connect urbanites with nature, but also create a permeable surface for capturing stormwater runoff. Without permeable landscaping, stormwater cascades along pavement, gathering heavy metals, gasoline, and other pollutants. When the city’s aging sewer system overflows, these toxins, along with building wastewater contaminants, are deposited into the Pacific Ocean and San Francisco Bay.

It all began in 2003, when Martin tore up a portion of the sidewalk on her property in San Francisco’s Mission District to plant native and climate-adapted plants. Since then, Plant*SF’s efforts have led to the removal of more than 30,000 square feet of pavement and the planting of more than 700 sidewalk gardens. “Our most notable achievement,” Martin says, “was getting a permit process in place that allows San Franciscan property owners to more easily ‘depave’ excess areas of sidewalk to create gardens.”

For more information about Plant*SF or about starting your own sidewalk garden, visit www.PlantSF.org.

BRAINY BACTERIA

There’s no doubt gardening is good for you, but can it make you smarter? A new study of a bacterium—Mycobacterium vaccae—that is widely distributed in soil, air, and plant matter, suggests it just might.

“Their research,” says Matthews, “showed that mice who were fed M. vaccae ran the maze twice as fast as control mice and exhibited half of the anxiety behaviors.” Even after the bacterium was removed from their diet, the mice still ran the maze faster than the control mice, although by the third week, the difference was no longer statistically significant.

“From our study we can say that it is definitely good to be outdoors—it’s good to have contact with these organisms,” says Matthews. “But are gardeners smarter? Well, M. vaccae certainly increases serotonin and decreases anxiety, and that’s got to contribute something.”

STATE OF THE WORLD’S PLANT DIVERSITY

There are now 600,000 fewer plant species on Earth, and for once, extinction is not to blame. It turns out the plants were simply given too many names.

While compiling a list of the world’s scientifically known plants, researchers at the Missouri Botanical Gardens and the Royal Botanical Garden, Kew found that certain plants have been described multiple times and in the process assigned more than one name. Scientists now estimate that there are about 400,000 known plant species.

Extinction isn’t off the hook, though. Another study published in September by Kew researchers indicates that over one-fifth of Earth’s plant species face extinc-
tion, with human-caused habitat loss identified as the major culprit.

Despite this worrying global trend, there are glimmers of hope. For example, after more than 30 years of cooperative conservation, the U.S. Fish and Wildlife Service proposed delisting the Tennessee purple coneflower (Echinacea tennesseensis) as a threatened and endangered species. This plant was originally listed as endangered in 1979 because it was found in only small populations in three Tennessee counties. “These populations have stabilized to the point that the species has recovered and no longer needs the protection of the Endangered Species Act,” says Cindy Dohner, the agency’s Southeast regional director.

And sometimes plants thought to have gone extinct turn up again, such as Hawaii’s epiphytic shrub Clermontia peleana ssp. singuliflora and Ascension Island’s parsley fern (Anogramma ascensionis). The Hawaiian find marks the first sighting since 1920 and came as researchers surveyed snails along the slopes of the Kohala volcano. As for the Ascension Island fern, it was last seen in 1938 and officially declared extinct in 2003 before being re-discovered this year by Kew scientists. Stephen Hopper, Kew Gardens director, echoes the sentiments of many when he says, “At a time of unprecedented loss of biodiversity, this exciting discovery gives us hope that species can cling on and that recovery of species is a real possibility.”

THE LATEST BUZZ ON CAUSE OF COLONY COLLAPSE DISORDER

As many as two-fifths of America’s commercial honeybee colonies have succumbed to colony collapse disorder (CCD) since 2006. The cause of CCD has remained a mystery despite scores of scientists studying the problem, but a team of bee researchers in Montana and Army scientists in Maryland has found a new piece of the puzzle.
2010 Floriculture Hall of Fame Inductions

In September, the late Todd Bachman and Harrison “Red” Kennicott, III, AAF, were named to the Floriculture Hall of Fame by the Society of American Florists (SAF). Recognizing individuals who have made significant and lasting contributions to the advancement of floriculture, the hall of fame is one of the floral industry’s highest honors.

Bachman was president of Minnesota-based Bachman’s, Inc., which is among the largest traditional floral and nursery operations in the world. In addition to his family business, Bachman also held leadership positions in SAF and other organizations. Barbara Bachman accepted the honor on behalf of her husband, who was the victim of a random stabbing during the 2008 Olympic Games in Beijing.

CEO of Kennicott Brothers, a leading importer, grower, distributor, and wholesaler of flowers since 1881 based in Chicago, Illinois, Kennicott has served the floral industry for more than 50 years. He has mentored many budding leaders in the floral industry and oversaw his company’s transition to an employee-owned business. “Kennicott’s influence is everywhere, even if his fingerprints are not,” says SAF Awards Committee Chairman Bob Luthultz. “He has quietly helped to improve facets of every trade channel without asking for recognition, acclaim, or material gain.”

The late Todd Bachman, left, and Harrison Kennicott, right.

Garden Writer and Expert Wayne Winterrowd Dies

Best known for North Hill, his extraordinary private garden in Readsboro, Vermont, garden writer and designer Wayne Winterrowd died in September at the age of 68. He spent more than 30 years creating this seven-acre garden with his spouse, Joe Eck. Winterrowd’s garden became world-renowned through his inspiring and good-humored books—many of which he co-authored with Eck—such as A Year at North Hill, Living Seasonally, and Our Life in Gardens. In addition to these windows into his personal world, he wrote the encyclopedic volume, Annuals and Tender Plants for North American Gardens. A skilled garden designer, Winterrowd was also known for pushing the boundaries of where plants were supposed to be hardy.

New CEO for Santa Barbara Botanic Garden

Starting December 1, Steve Windhager will be the new CEO of the Santa Barbara Botanic Garden (SBBG) in Santa Barbara, California. Currently the landscape restoration director for the Lady Bird Johnson Wildflower Center in Austin, Texas, Windhager inherits several challenges from SBBG’s previous CEO, Edward Schneider, who ended his 18-year tenure at the garden in July.

The garden is still dealing with the effects of the Jesusita Fire, which destroyed large sections of the garden in 2009. SBBG is also struggling to rebuild its shaky financial standing due to the weak economy and other factors, as well as restore relations with the surrounding community after years of disagreement over its future development plans. “There’s a lot of opportunity to rebuild the relationships that the Garden has with the larger community,” Windhager told the Santa Barbara Independent in an October 19 article, “and to really clarify the important role that the Garden can play as a critical component of the cultural life of Santa Barbara.”

For more information about SBBG, visit www.sbbg.org.

According to a study published in October’s PLoS ONE, an online science journal, the combined effect of a fungus and a virus appears to play a large role in CCD. “They’re co-factors, that’s all we can say at the moment,” Jerry Bromenshenk, lead author of the study with the University of Montana, Missoula, told the New York Times in an article published October 6.

Recognizing that this fungus—virus synergy represents a major development in curtailing the worldwide problem of CCD, scientists’ next step is to determine how the fungus and virus unite to kill bees and—eventually—how to prevent further outbreaks.

U.S. DEPARTMENT OF AGRICULTURE FUNDS SCHOOL GARDEN PROGRAM

Dirty hands, fresh air, and a gaggle of children may sound like a scene from recess, but if the USDA’s People’s Garden School Pilot Program has anything to do with it, soon this will also describe an outdoor classroom scene.

The pilot program seeks to teach children in impoverished school districts about agriculture, diet, and nutrition through establishing school gardens. “Learning where food comes from and what fresh foods taste like, and the pride of growing and serving vegetables and fruits that grew through your own effort, are life-changing experiences,” says Agriculture Secretary Tom Vilsack. In addition, schools with successful gardening programs will serve as models for the program’s further expansion.

Through this school gardening initiative, the USDA hopes to foster healthier eating choices for all American households. The produce grown in the gardens...
2010 AMERICAN GARDEN AWARD WINNERS

The grand prize winner of All-America Selections’ second annual American Garden Award contest is **Rudbeckia Denver Daisy™** from Benary of America. This bold lover of the sun attracted voters with its four- to six-inch golden-yellow blossoms with maroon-rimmed, chocolate-brown centers. Over the summer, 18 public gardens across the nation displayed Denver Daisy™ alongside three other entries, all vying for recognition as the best new variety from the world’s top plant breeders. Garden visitors were invited to cast votes for their favorites after seeing the contestants for themselves.

**Echinacea Prairie Splendor™** from Syngenta Flowers took second place in the contest. Teeming with three-inch amethyst-colored blooms, this first-year flowering perennial blooms from early summer to late fall.

The 12-inch-tall ornamental pepper ‘Purple Flash’ from PanAmerican Seed placed third. This drought-tolerant plant features purple-streaked leaves and small, spherical, black fruits. If you fancy picking a peck of these ‘Purple Flash’ peppers to eat, be warned: They are extremely hot.

For more information about the winning plants or participating trial gardens, visit [www.americangardenaward.org](http://www.americangardenaward.org).

**Entrance of the Park Seed Co. in Greenwood**

Earlier in the year, Park Seed, which now sells plants and garden supplies in addition to seeds and conducts horticultural research, shocked the horticultural world by filing for Chapter 11 bankruptcy. Located in Greenwood, South Carolina, Park Seed’s headquarters features nine acres of themed gardens and employs more than 300 people.

Blackstreet Capital has agreed to keep the business running in Greenwood for at least three years. Lawrence Berger, a representative of Blackstreet, says the company plans on rescuing the historic seed company from bankruptcy and making it viable once more.

**PARK SEED COMPANY SOLD TO PRIVATE EQUITY FIRM**

When 15-year-old George Watt Park started selling seeds to neighbors in Ligonier, Pennsylvania, in 1868—therein starting Park Seed Company—he probably never imagined that his company would be sold for close to $12 million 142 years later. In August, Blackstreet Capital, a private equity firm in Chevy Chase, Maryland, became Park Seed’s new owner.

**Written by Editorial Intern Patrick Morgan.**
A Miscellany of Useful Garden Helpers

by Rita Pelczar

As the gardening year comes to a close, I’d like to share a few of the products that have made my work a little easier and more pleasant this season as I’ve planted, pruned, weeded, and harvested in my North Carolina garden. Many of these items have direct application in the garden, others benefit garden visitors. And some are geared toward making the gardening experience safer and more comfortable.

**FOR THE GARDEN**

The large, lightly cushioned grip of the **Ergonomic Stainless Steel Digging Tools** from Lee Valley Tools is designed for comfort, and because the grip is circular, you can grasp it using different hand positions, which helps avoid wrist strain. Another good design feature is the broad, forward-folded stepping surface that allows you to apply foot pressure comfortably and securely. A variety of tools are available in this series including spades, forks, and weeder; I particularly like the transplanting spade with its long, narrow blade.

I used that spade to transplant some young trees this year, and to protect them from both pests and mower damage, **Tree and Plant Guards** from Peaceful Valley Farm and Garden Supply are effective and easy to use. The two halves of these plastic rings snap together around the trunk to form a five-and-a-half-inch-diameter circle that is nine-and-a-half inches tall.

Doesn’t it always seem that the best apples (or pears, peaches, or plums) are just out of your reach? If you grow tree fruit, you will want to invest in a **Harvest Helper Fruit Picker**, available from Gardener’s Supply. No need to climb a ladder when this eight-foot tool is in hand. Its vinyl-coated wire basket is attached to a wooden pole that allows you to reach high into the tree’s canopy to pluck fruit. The basket, which holds three medium-sized apples, is padded to prevent fruit bruising.

One of my favorite discoveries this year is **Silvermark Herb Snips** offered by W. Atlee Burpee & Company and several kitchen supply stores. The super-sharp blades are great for harvesting and mincing herbs, and they come apart for easy cleaning. There are three small, sharp-edged notches between the handle and the blades for stripping leaves off stems—a great time saver!

If you are planning to start flowers, herbs, or vegetables indoors from seed for next year’s garden, consider Burpee’s **Ecofriendly Seed Starting Kit**. It is completely biodegradable and includes 25 fiber planting cells and grow pellets, a bamboo watering tray, a germination sheet, three wooden plant labels, and a one-ounce package of Espoma organic fertilizer.

If you like to hang herbs to air dry, try tying them in bunches with **Paper Ties**—a supple and strong Japanese ribbon, available in 33-foot rolls from Lee Valley. Made of unbleached recycled paper, it’s biodegradable, but its dense pleats make it quite strong, suitable for a variety of garden tasks from bundling yard waste to securing plants. Use it in place of plastic ties and just let it decompose at the end of the season.

**FOR GARDEN VISITORS**

Suet is a great source of energy for the birds that remain in your garden over winter. Songbird Essentials has a durable **Suet Feeder with Tail Prop** made of recycled plastic. The tail prop is a flat surface that extends below the feeding cage for woodpeckers and other large birds to balance
Solar Sipper

To provide birds a drink when temperatures dip, try Duncraft’s Solar Sipper, a bright red insulated bowl with a black plastic cover that absorbs and holds the sun’s heat. It’s important to locate it in full sun, where it will prevent a full bowl of water from freezing, even when temperatures dip to about 20 degrees Fahrenheit. The cover has a small opening that allows birds to sip while the water remains clean. The Sipper can be placed on the ground or mounted with a wall bracket.

Duncraft also offers the Rocky Mountain Spring Bath, which sits on the ground and looks great nestled among plants in a bed. It resembles natural stone, but it’s made of durable molded polysyn and fiberglass. Its weight and low profile prevent it from toppling, even on my windy knoll.

FOR THE GARDENER

Biting bugs can be an outdoor nuisance. Herbal Armor™ from All Terrain is a Deer-free repellent that provides great protection for two to three hours against mosquitoes, deer flies, and other biting insects. Its ingredients include five natural essential oils, and it’s available as both a lotion and a spray.

If biting or stinging insects do get the better of you, help is at hand: Boiron’s Bitecare, comprised of three homeopathic medicines, is a soothing, water-based gel that reduces itching, burning, and swelling. Bite Blaster® from Coastal Solutions is an unscented, topical anesthetic spray containing lidocaine that is available in handy pen sprayers that fit easily into a pocket.

Gardening, like any physical activity, has its share of minor hazards. For blisters, scrapes, burns, and cuts, I like to dab on All Good Goop™ from Elemental Herbs. It’s an organic infusion of herbs and oil. The soothing, petroleum-free ointment is mild enough to use on chapped lips. And if sore muscles bother you after a hard day of hoeing, try Herbal Cool™, also from Elemental Herbs. Made with compounds derived from arnica, it provides temporary relief of muscle pain.

For cleaning up after working in the garden, All Terrain’s Wonder Wash™, a concentrated liquid soap, is powerful on dirt but easy on your skin. And its refreshing peppermint scent helps end a day of weeding, raking, or digging on just the right note.

Rita Pelczar is a contributing editor for The American Gardener.

**Sources**


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From Art to Landscape

MOST GARDEN designers consider themselves artists of sorts, creating sweeping vistas, perhaps, or small portraits around a patio using a palette of plants. In the view of landscape designer W. Gary Smith, those who employ the techniques of painters, sculptors, poets, and dancers end up with the most creative designs.

In his new book, From Art to Landscape, Smith explains how to find inspiration in art and explores the tools that can awaken the imagination. Smith’s objective is to explain how to collaborate with nature in an artistic and meaningful way. As he says in the introduction, “The garden is where landscape and art can come together most potently, where people can find the deepest connections with the living world.”

First, Smith guides the reader through various techniques to foster a dialog with one’s own style in order to make “personally meaningful gardens.” He encourages consideration of basic shapes like circles, triangles, squares, and cubes and the mosaic patterns they might form on the forest floor; he suggests making collages and sketching from nature in order to find “a sense of place.” For example, to design a children’s garden in New York, Smith took photographs of neighborhood architectural details to help him understand the city’s public spaces.

Smith also illustrates how motifs from paintings, dance, and other artistic media can influence garden design. An English garden border, for instance, might draw inspiration from an impressionistic painter; spatial relationships within a garden might be organized as in a dance; a lush and dramatic tropical garden might be patterned after an abstract work of art.

In the second section of the book, Smith reveals how all of these techniques come together in actual projects such as Peirce’s Woods at Longwood Gardens in Pennsylvania, Naples Botanical Garden in Florida, and Garden in the Woods in Massachusetts.

The book is an invaluable guide for designers of any type, and, as Smith puts it, “If you allow yourself the freedom to think like an artist, you will not only be amazed at the results but also find yourself creating gardens—and more—beyond what you could have imagined.”

—Jane Berger


Gardening for a Lifetime

WE ALL HAVE faced, or will face, a time when our ability to do the strenuous work in our gardens diminishes. I did earlier this year after three surgeries due to broken bones. In retrospect, Sydney Eddison’s Gardening for a Lifetime would have provided me some useful perspective during that period. It’s an intuitive primer on “how to garden wiser as you grow older.” Essentially it’s about easing the workload without losing the beauty and gratification of environments we spend years creating, while “trying to hang on to something we love,” writes Eddison.

When age crept up on Eddison, the award-winning writer, gardener, and lecturer realized that, like the 1950s Johnny Mercer song says: “Something’s gotta give.” When it became obvious her garden was too much to handle, even with help, she knew it was time to rethink things. This poignant and practical book draws upon the wisdom she accumulated during nearly 50 years of gardening.

The book begins with a look back at Eddison’s own garden in Connecticut and how it ended up being more than she could manage. In subsequent chapters, she reflects on how she went about solving this dilemma and the lessons learned along the way. Finely rendered pen-and-ink illustrations by Kimberly Day Proctor enhance the author’s lyrical prose. Each chapter ends with a section titled “Gleanings,” which sums up strategies and techniques that reduce garden tasks. For instance, Eddison points out that the good news about shady areas is that they are easier to maintain because less light means fewer weeds and “there are relatively few prima donnas among the shade-tolerant plants.”

Eddison’s advice also includes substituting shrubs for work-intensive perennials and accepting imperfection. Mulch goes a long way as camouflage, she notes. Another strategy is embracing miniature landscapes and containers such as bonsai and trough gardens. Above all, she emphasizes making the most of what you have left, both in terms of “the resources you still have at your command” and in the garden.

While aging gardeners will appreciate this book, it will also appeal to those who are short on time due to career and family obligations.

—Doreen Howard

Doreen Howard is an award-winning author of four books. Her new book, Heirloom Vegetables, Herbs, and Fruits: Savoring the Rich Flavor of the Past, will be released in March by Cool Springs Press.
The World of Trees

Bark

Just when you thought your woody plant library was complete, along come two new books to prove you wrong: The World of Trees by Hugh Johnson and Bark by Cédric Pollet. Originally published in 1973, The World of Trees has been extensively revised based on the author’s additional 37 years of experience with trees. Johnson’s aim is to “make vivid through words and pictures the essential differences between the great groups of trees, to tell their story, and then go on to enjoy the pleasures of their subtly, elaborately, almost endlessly varying designs—the species and varieties from all over the temperate world.” The book certainly does all of this, while also offering practical tips for selecting, planting, and maintaining trees in the landscape.

The first section of the book provides general information on how trees grow, the life cycle of trees, their classification, and morphological characteristics. Next comes a compendium of more than 600 taxa of trees, divided into conifers and broadleaves. Beautiful color photographs, including portraits and landscape scenes, grace every page. The last section includes a guide to choosing trees for the landscape and a chart comparing the ornamental traits of trees throughout the seasons. The index is extensive, and there is also a separate index of tree species.

As its subtitle, An Intimate Look at the World’s Trees, implies, Bark gets even more up close and personal with trees. After spending more than a decade taking thousands of photographs of plants all over the world, author and photographer Cédric Pollet showcases more than 400 of the most spectacular images comprising some 200 taxa. Each of the close-up images of bark is a work of art, offering “a great diversity of textures and an exquisite range of natural colours, as good as any rainbow.” Pollet also includes images of the trees in their natural habitat. For some trees, such as pines, stunning montages illustrate the amazing bark variations within a genus. The images are accompanied by brief passages about the species, origins, uses, habitat, and specific locations of these majestic beauties.

Both Pollet and Johnson clearly have an infectious passion for trees, and their books are must-haves for any tree lover.

—Vincent A. Simeone

The director of Planting Fields Arboretum State Historic Park in Oyster Bay, New York, Vincent A. Simeone is the author of four books on woody plants.
The season of giving is the perfect time to share the joy of gardening with everyone on your gift list. Here are some ideas that are sure to be appreciated for years to come.

**Homegrown Harvest**

Hot off the press, the American Horticultural Society’s *Homegrown Harvest* is the perfect season-by-season guide to creating a sustainable kitchen garden. It is lavishly illustrated and suited to green thumbs of every shade. Available for $32.50 through www.ahs.org.

**Floating Rain Gauge**

The perfect combination of beauty and functionality, this rain gauge features a blue inner tube that floats upward as rainwater gathers in the solid copper tube. Available for $39.95 from Gardener’s Supply. (888) 833-1412. www.gardeners.com.

**Rhododendron Earrings**

These elegant sterling silver earrings feature fine prints of rhododendron flowers displayed behind crystal cabochons. Dangling from French hooks and accented with Czech glass peridot beads, they measure 1 1/2 inches in length. Available for $52 from Joy Newton Designs. (860) 653-8218. www.joynewtondesigns.com.

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Display fresh-cut flowers like a professional florist with this pliable wire floral arranger that accommodates stems of all sizes. Pairs of four-, five-, and six-inch blossom crowns are available for $5.20, $5.70, and $6, respectively. Set of three crowns—one of each size—available for $8.40 from Lee Valley Tools. (800) 871-8158. www.leevalley.com.

Gardening with style never felt more comfortable! These lined waterproof rubber boots keep feet warm and dry in any weather. Available in a variety of colors and patterns from Bogs Footwear for $92. (800) 201-2070. www.bogsfootwear.com.

For children or the young at heart, this eco-friendly board game—made from recycled paper and printed with soy-based ink—is fun for the entire family. Gather a flower, vegetable, and more for your garden as you travel to each vendor or trade with a friend, all while learning the names of important plants. Available for $18 from eeBoo. (212) 222-0823. www.eeboo.com.

With a 3¼ quart capacity, this compost pail is made from sustainable bamboo and includes dual charcoal filters to minimize odors. A plastic liner makes it easy to empty and protects the bamboo from moisture. Available for $39.99 from Clean Air Gardening. (888) 439-9101. www.cleanairgardening.com.

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REGIONAL HAPPENINGS

Horticultural Events from Around the Country

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


Looking ahead


FLOWER AND GARDEN SHOWS


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


SOUTHWEST
AZ, NM, CO, UT


Looking ahead

WEST COAST
CA, NV, HI


NORTHWEST
AK, ID, MT, OR, WA, WY


Looking ahead


CANADA


Fairchild Festival Draws Chocoholics

COMBINE A GARDEN with chocolate and what do you get? The 5th Annual International Chocolate Festival, taking place from January 21 to 23 at the Fairchild Tropical Botanic Garden in Coral Gables, Florida.

The Chocolate Festival includes cooking demonstrations from Miami’s premier chefs and lectures on a variety of chocolate-themed topics, including how to grow your own cacao tree, *Theobroma cacao*. Festival goers also can expect mouthwatering chocolate samples, world-class chocolate vendors, and fun family activities.

“We’re most proud of the educational component,” says Fairchild Publicist Paula Fernandez. “Learning where chocolate comes from—that it doesn’t just start out all pretty and packaged and tasting the way it does—allows people to appreciate it more.” And appreciation seems inevitable as guests tour Fairchild’s Rainforest during the Chocowalk to learn about the habitat, seasonal changes, and natural history of the cacao plant. Inspired gardeners can even purchase their own cacao tree. The festival also features interactive demonstrations for kids that range from lectures filled with amusing chocolate facts to lessons on how to make chocolate.

AHS members showing a current membership card receive free admission to the Chocolate Festival as part of the AHS Reciprocal Admissions Program. For more information, visit www.fairchildgarden.org or call (305) 667-1651.

Rutherford Conservatory Opens

SPOTTING A TROPICAL FLOWER in the Pacific Northwest might sound like climate change gone awry, but thanks to the Rhododendron Species Botanical Garden (RSBG) in Federal Way, Washington, this is now possible without drastic changes to global weather patterns. On September 25, the garden celebrated the grand opening of its Rutherford Conservatory, which is devoted to tropical rhododendrons in the subgenus *Vireya*.

Named after Francis C. Rutherford, a RSBG lifetime member, it is the first public conservatory built on the West Coast in recent history. However, it’s the plants in the conservatory that the garden is most excited about. “They bloom during times of the year when most people don’t typically think to visit us,” says Shara Smith, assistant director of RSBG, “giving us year-round color.” Visitors in November and December can see several species in bloom, including orange-flowered *Rhododendron stenophyllum*, among others. The conservatory also displays other species of rhododendrons, ferns, and orchids, and features rock sculptures, a waterfall, and an outdoor terrace.

First opened to the public in 1980, the RSBG is home to one of the world’s largest collections of rhododendrons and azaleas. With more than 550 species in total, the garden focuses on wild varieties, including rhododendrons that are native only to the remote areas of Nepal and China.

For more information about the conservatory and the Rhododendron Species Botanical Garden, visit www.rhodygarden.org or call (253) 838-4646.

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

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

**PRONUNCIATIONS AND PLANTING ZONES**

---

**A–D**

Abies nordmanniana AY-beez nord-man-ee-AY-nuh (USDA Zones 4–6, AHS Heat Zones 6–4)

Aconitum carmichaelii ak-a-NY-turn car-may-KAY-lee-eye (3–8, 8–3)

Acorus gramineus AK-or-us grah-MIN-ee-us (6–9, 9–5)

Alchemilla mollis A–D

**E–L**

Echinacea purpurea ek-in-EE-NAE-see-uh pur-PUR-reh (3–9, 9–1)

E. tennesseensis E. ten-uh-see-EN-sis (3–9, 9–1)

Epimedium rubrum ep-im-EDEE-uh-bruh (4–8, 8–1)

E. versicolor var. sulphureum E. vur-SIK-uh-lur var. suh-li-KEE-reh (5–9, 9–4)

Eranthis hyemalis ee-RAN-thiss hi-vih-MAL-iss (4–9, 9–1)

Euphorbia amygdaloides yew-FOR-bee-uh uh-mig-duh-LOH-deez (6–9, 9–2)

E. dulcis E. dul-CISS (4–9, 9–4)

Festuca idahoensis fes-TEW-kuh eye-duh-ho-EN-siss (3–8, 8–1)

Fragaria virginiana frah-GAY-reh-ee-uh vir-jee-EE-uh-AN-uh (5–8, 8–4)

Gaultheria procumbens gawl-THAIR-ee-uh (5–9, 9–3)

G. shallon G. SHAL-lon (6–8, 8–6)

Geranium macrorrhizum juh-RAY-reh-ee-uh mak-ro-RHY-zum (4–8, 8–1)

Helleborus foetidus hehl-eh-BOR-us FEE-tih-dus (6–9, 9–6)

H. xhybridus H. HY-bri-dus (6–9, 9–6)

Hibiscus coccineus hy-BISS-kus kok-SIN-ee-us (6–11, 12–6)

Ilex verticillata I-LEX-ee-uh ver-TYE-kuh (5–8, 8–1)

I. virginiana I-LEX-ee-uh vir-JIN-ih-kuh (5–8, 8–1)

Lobelia cardinalis lob-EEL-yuh kah-RYE-dih-NAL-iss (2–8, 8–1)

Lysimachia nummularia liss-EE-uh MAHK-ee-ee-uh noom-yew-LAY-reh-ee-uh (4–8, 8–1)

**M–R**

Mazus reptans MAY-zus reh-PAHN-tanz (4–8, 8–1)

Mertensia virginica mur-TEEN-ee-uh vir-JIN-ee-uh (3–7, 7–1)

Metasequoia glyptostroboides met-a-SAY-kwee glip-toh-s Trout-deez (3–10, 10–1)

Mitchella repens mi-THEL-uh-EE-pee-uh (3–9, 9–1)

Muhlenbergia dubia mew-len-BUR-jee-uh (3–9, 9–1)

M. capillaris muh-LAY-nee-uh (6–9, 9–6)

Nepeta faassenii NEP-ee-ee-uh fah-SEN-ee-ee-ee (3–8, 8–1)

Pachysandra procumbens pak-EE-uh-SAN-drueh pro-KUM-rehn (5–9, 9–3)

Parthenocissus quinquefolia par-theen-oh-SISS ee-kuh-kwih-FO-lee-ee-uh (4–9, 9–5)

Penstemon digitalis PEN-stee-eh-mon (3–9, 9–1)

**S–Z**

Sanguinaria canadensis san-GWAY-nee-uh kuh-KAY-diss (3–9, 9–1)

Shortia galacifolia SHOR-tee-uh (6–9, 9–6)

Stachys byzantina STAY-kiss bih-zahn-TEE-yuh (4–8, 8–1)

S. lavandulifolia S. lah-vand-ul-EYE-lee-uh-ee-uh (5–7, 7–5)

Symphytum grandiflorum sim-FEE-turn (5–7, 7–5)

Tanacetum parthenium tan-EE-ree-uh-ee-uh (4–9, 9–1)

Theobroma cacao thee-oh-BRO-muh kuh-KAY-uh-EE (minimum 60°F, 12–11)

Thuja orientalis THEW-yuh awe-ree-en-TAL-iss (6–9, 9–6)

Tulbaghia violacea tuh-BAYG-ee-ee-uh vy-O-LAY-see-ee-uh (7–10, 10–7)

Vaccinium deliciosum vak-SIN-ee-uh del-EE-see-O-sum (4–8, 8–4)

V. myrtillus V. myrt-UH-liss (5–7, 7–5)

Veronica oltensis ver-ON-ee-kuh OL-ten-siss (4–9, 9–4)

V. virginiana V. vur-JIN-ee-AN-uh (5–10, 10–1)

**Phlox subulata** FLOKS sub-YEW-LAY-tuh (3–8, 8–10)

Physostachys aureosulcata fil-lo-STAY-kiss aw-reh-o-sul-KAY-tuh (5–11, 12–3)

Picea abies PY-see-uh AH-beez (3–8, 8–1)

P. orientalis P. aw-reh-en-TAL-iss (5–8, 8–5)

P. pungens P. PUN-jenz (2–8, 8–1)

Pinus flexilis PY-nus FLEX-eks-euh-EE (3–7, 7–1)

P. parviflora P. par-vih-FO-lur-reh (6–9, 9–6)

P. virginiana P. vir-jee-EE-uh-AN-uh (5–10, 10–1)

Podophyllum peltatum pah-doh-FIL-uhm pel-TAY-tuhm (3–9, 8–2)

Prunus maritima PROO-nus muh-RIT-uh-ee-uh (3–6, 6–1)

**Sanguinaria canadensis** san-gwy-NAY-reh-ee-uh kan-ee-DEN-siss (3–9, 9–1)

**Shortia galacifolia** SHOR-tee-uh (6–9, 9–6)

**Stachys byzantina** STAY-kiss bih-zahn-TY-yuh (4–8, 8–1)

**S. lavandulifolia** S. lah-vand-ul-EYE-lee-uh-ee-uh (5–7, 7–5)

**Symphytum grandiflorum** sim-FEE-turn (5–7, 7–5)

**Tanacetum parthenium** tan-EE-ree-uh-ee-uh (4–9, 9–1)

**Theobroma cacao** thee-oh-BRO-muh kuh-KAY-uh-EE (minimum 60°F, 12–11)

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**Tulbaghia violacea** tuh-BAYG-ee-ee-uh vy-O-LAY-see-ee-uh (7–10, 10–7)

**Vaccinium deliciosum** vak-SIN-ee-uh del-EE-see-O-sum (4–8, 8–4)

**V. myrtillus** V. myrt-UH-liss (5–7, 7–5)

**Veronica oltensis** ver-ON-ee-kuh OL-ten-siss (4–9, 9–4)

**V. virginiana** V. vur-JIN-ee-AN-uh (5–10, 10–1)

**Zea mays** ZEE-ee-ee MAYS (0–0, 12–1)
GARDEN MARKET

CLASSIFIED AD RATES: All classified advertising must be prepaid. $2.75 per word; minimum $66 per insertion. Copy and prepayment must be received by the 20th of the month three months prior to publication date. Display ad space is also available. To place an ad, call (703) 768-5700 ext. 120 or e-mail advertising@ahs.org.

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AUTHORS

Baggett, Pam. Garden Showstoppers, J/A, 16.
Darke, Rick. What is Wild?...and Why it Matters, J/F, 24.
Irish, Mary. Agaves for Small Gardens, M/A, 36.
Joyce, Alice. Mountain Fringe Vine, M/A, 62.
Neveln, Viveka. Amy P. Goldman: Heirloom Fruit and Vegetable Advocate, J/F, 44. Rissetto Named New AHS Board Chair, J/A, 15.
Norton, Dean. ‘Justin Brouwers’ Boxwood, J/F, 62.
O’Sullivan, Penelope. Covering Ground with Conifers, M/A, 30.
Pleasant, Barbara. Shiitake Mushrooms, J/F, 42.
Rissetto, Harry and Underwood, Tom. Notes from River Farm, J/A, 5; S/O, 5; N/D, 5.
Stafford, Russell. Space-Saving Buckeyes, M/J, 32.
Usrey, Susie and Underwood, Tom. Notes from River Farm, J/F, 5; M/A, 5; M/J, 5.

SUBJECT

Aesculus: see Buckeyes.
Agaves: Agaves for Small Gardens, M/A, 36.
Buckeyes: Space-Saving Buckeyes, M/J, 32.
Fruits: see under Vegetables and Fruits.
Garden Coaches: Cultivators of Confidence, J/A, 22.
Helianthus: see Sunflowers.
Herbs: Basil Offers a World of Flavor, M/J, 44. A Love Affair with Lavender, M/J, 16.
Insects: Making Space for Garden Spiders, J/F, 39.
Lavandula: see Lavenders.
Lavenders: A Love Affair with Lavender, M/J, 16.
Moss: Carefree Moss, N/D, 20.
Quercus: see Oaks.
Rainscaping: Rainscaping, J/A, 37.
Shade: Dynamic Duets for Shade, M/A, 18.
Sunflowers: Sensational Sunflowers, J/A, 28.

**COLUMN INDEX**


**Homegrown Harvest:** Basil Offers a World of Flavor, M/J, 44. Getting the Best out of Broccoli, M/A, 44. The Pleasure of Persimmons, S/O, 44. Popcorn Perfection, N/D, 44. Shiitake Mushrooms, J/F, 42. Summer Squash Secrets, J/A, 44.

**Natural Connections:** Making Space for Garden Spiders, J/F, 39.


Index compiled by Katherine Hoffman, AHS Volunteer, and Patrick Morgan, Editorial Intern.
Gaultheria’s Berry Appeal

by Fiona Gilsenan

Any plant that can be described using viticultural adjectives is likely to catch my attention. So when I asked a gardening friend what I might plant in a semi-shaded spot in my Vancouver Island garden that would look good in winter, he had the perfect suggestion. “Why don’t you try *Gaultheria mucronata*?” he said. “You know, the one with the Beaujolais berries.”

Also known as prickly heath or Chilean winterberry, *Gaultheria mucronata* (syn. *Pernettya mucronata*) is not a plant that shows up on top 10 lists as frequently as its cousins, Northwest native salal (*G. shallon*) or the East Coast winterberry (*G. procumbens*). But if you’re planning a winter garden in USDA Hardiness Zones 7 to 10, this tough little shrub, native to Chile and Argentina, is well worth considering.

While the foliage and form are fairly unremarkable—the leaves are heathlike, with prickly tips, and retain a glossy sheen year round—the outstanding feature of this plant is its long-lasting berries. Copious springtime clusters of tiny white urns give way to generous bunches of marble-sized fruit colored white, pale and dark pink, lilac, crimson, magenta, and mulberry. (Or, if you prefer, rosé, pinot noir, and burgundy.) The berries are plump and will remain on the plant well into the next season’s flowering. The combination of pale flowers and rosy fruit is especially striking.

Most varieties grow no larger than about four feet and can have a somewhat dense and angular growth habit. For this reason, it’s best to plant them in groups or as an informal hedge.

**Worthy Selections**

Some 20 to 30 named selections have been introduced, but only a handful are readily available. Because most types are dioecious—either male or female—fruitting on female plants is enhanced when male selections are planted nearby. ‘Thymifolia’ is a male white-berried selection that is commonly sold as a pollinator. For single specimens in the ground or in containers, choose a hermaphrodite variety such as ‘Bell’s Seedling’. Other selections worth looking for include Snowdrop™ and Pink Snowdrop™. When trying to locate sources for plants, be aware that some nurseries and references still list it under its original genus name, *Pernettya*.

**Planting and Maintenance**

As with other members of the heath family (Ericaceae), Chilean winterberry grows best in moist, well-drained, acidic soil. In a casual woodland arrangement, pair it with conifers and with other acid-loving shrubs such as rhododendrons, camellias, and heathers. Or create a winter vignette with an underplanting of snowdrops (*Galanthus* spp.).

Wait until spring or early summer to cut back straggling stems to tidy up the shrub’s appearance. At any time, if the plant sends out long shoots, simply cut them at the base of the stem.

Chilean winterberry can form large clumps over time, so judicious root pruning may be needed to keep plants in their allotted space. I use a sharp shovel to chop through the underground runners, which are an inch or two below the surface. You can also dig up these rooted suckers in spring to replant elsewhere or give away.

Although *G. mucronata* shows up on lists of poisonous plants, the berries are edible, if not flavorful. Pacific Northwest plantsman Dan Hinkley says that he has added them to fruit salad—mostly for the color—and suffered no ill effects. But to be safe, you can skip the berries and enjoy a glass of Beaujolais instead.

**Sources**


Fiona Gilsenan, a contributing editor for the Sunset Western Garden Book, lives in Vancouver, British Columbia.
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