

Horticultural News and Research Important to American Gardeners



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

AMERICAN DAFFODIL SOCIETY MEMBERS NAME THEIR FAVORITES

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

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

According to Hickman, the qualities that make an outstanding daffodil include "symmetrical form, clear color, and a strong stem holding the flower up well. It is healthy and resistant to rot, increases gradually to form a nice clump but not so quickly that it crowds itself out." The ADS's *DaffLibrary.org* site has the complete list of responses to the 25 daffodil

project if you search via "25 daffodils." Consider adding these tried-and-true favorites this fall for a lovely, easy spring show.

MYSTERY SEEDS BY MAIL

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

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

AMERICAN BEAUTYBERRY COMPOUND OFFERS BOOST TO ANTIBIOTICS

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



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

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

YALE SCIENTISTS SOLVE THORNY ISSUE

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

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



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how thorns evolved, especially in citrus trees. Irish and her Yale research team first showed that in citrus plants thorns arise from the plants' stem cells. Unlike typical stem cells, which continue to divide, thorn stem cells undergo what Irish describes as "a programmed arrest." The scientists found that two chemical regulators gradually shut down stem cell activity in the developing thorn, causing it to taper off into a sharp tip. When the researchers genetically eliminated the two regulators, the citrus plants produced branches instead of thorns. Among the potential benefits of this research, Irish notes, is the development of citrus trees that have more fruit-bearing branches and pose less danger to laborers. For more on this study, which

was published in the June 18 issue of *Current Biology*, visit [www.cell.com/current-biology/fulltext/S0960-9822\(20\)30755-7](http://www.cell.com/current-biology/fulltext/S0960-9822(20)30755-7).

URBAN TREES OFFER IMPORTANT BIRD HABITAT

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

PEOPLE AND PLACES IN THE NEWS

GANNA WALSKA LOTUSLAND NAMES NEW EXECUTIVE DIRECTOR

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



F. TODD LASSEIGNE NAMED EXECUTIVE DIRECTOR AT BELLINGRATH

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



BOWMAN'S HILL WILDFLOWER PRESERVE SELECTS NEW EXECUTIVE DIRECTOR

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



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

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

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

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

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

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

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

Written by Associate Editor Heather Prince.

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