

# Digger

SEPTEMBER 2023

## The replacements

Candidates for diversifying  
the urban canopy

PAGE 25

## Tackling troublesome taproots

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## How genome sequencing helps plant breeding

PAGE 41

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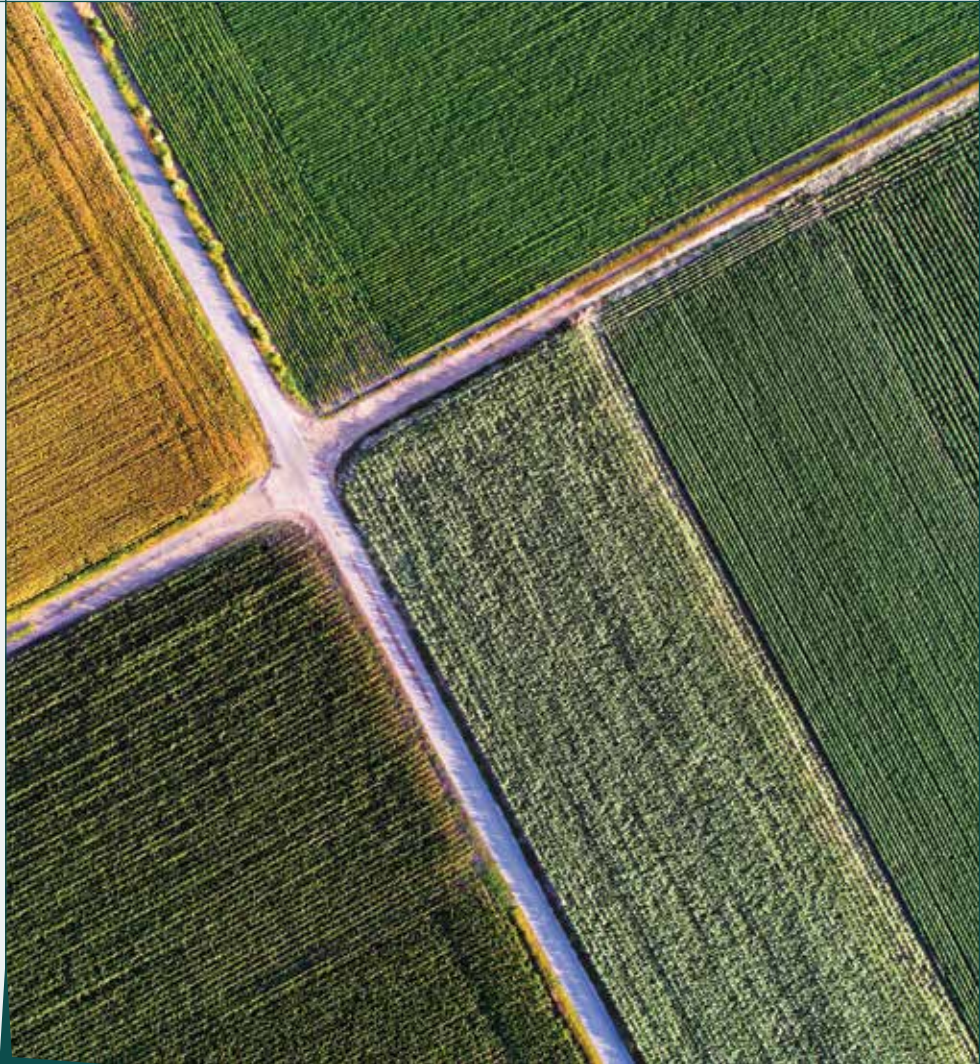
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# Digger



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## 9 2023 Farwest Show recap

New Varieties Showcase and Best in Show winners, plus much more.



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Printed in Oregon on domestic recycled paper when available.

**On the cover:** The inexorable advance of emerald ash borer has prompted growers and specifiers to look for alternatives to the former staple, the ash tree. Emerald City tulip tree is one such option, with its upright habit and deep green, slightly glossy foliage. PHOTO COURTESY OF J. FRANK SCHMIDT & SON CO.

**On this page: Left:** Root pruning containers such as this RediRoot pot are one option to prevent tap roots and circling. PHOTO COURTESY OF REDIROOT

**On this page: Right:** Emerald Avenue<sup>®</sup> hornbeam is not just a good alternative to ash, but also more heat and drought tolerant than other hornbeams.

PHOTO COURTESY OF J. FRANK SCHMIDT & SON CO.

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# Where the lessons are

## A limited perspective leads to a limited experience



Todd Nelson

I once heard a story of a man who had a lifelong dream of sailing the Mediterranean on a cruise ship with his wife. After she passed away, the man decided that if he didn't go now, he never would. So for a year, he saved whatever he could in order to have enough money to purchase a ticket.

Since money was tight, the man decided to pack an extra suitcase full of beans and crackers and powdered lemonade to help supplement the need to pay for food and drink on the ship.

As the cruise continued, the man noticed the endless entertainment and food options that were available. Movies and shows, steak and lobster, and an endless supply of Diet Mountain Dew. He longed to be able to enjoy those activities that many of his fellow passengers seemed to enjoy so freely, but wanting to keep expenses at a minimum, the man did not participate in any of the extra activities.

Though he was able to see many of the places on his bucket list — places like Rome, Istanbul, and Athens — the remainder of his time was spent in his cabin, with his beans and crackers.

On the last day of the cruise a crew member asked him what farewell party he would be attending. The man, not wanting to pay for an extra activity, replied that he did not have the funds and would not be attending any party. The crew member told the man that the parties were complimentary, just as the food and the entertainment had been for the entire cruise. It was all included in the original cost of the ticket.

The man's limited perspective only allowed him to enjoy a limited experience.

Early in my career, I too struggled with limited perspective. I didn't understand the Oregon Association of Nurseries and why it was something I needed to be a part of. Luckily for me, I had a wise mentor — my dad. He said to me: "If you don't participate, how can you have an opinion?" He then counseled me to "Be involved."

Like the man on the cruise ship, my limited perspective allowed me to only have a limited experience with the OAN. So, taking my father's advice, I became involved.

Since doing so, I have come to appreciate what the OAN does for each of us.

There have been many times over the years where I have experienced complex issues and challenges facing our nursery and needed to reach out to those great folks at the OAN. In every instance, they made themselves readily available and were happy to help me work through those specific challenges we were facing, either directly or by pointing me towards those who were able to help. This personalized support has had such a positive impact on me.

Throughout the year I have had opportunities to witness firsthand the OAN's advocacy on our behalf. The things that worry us, worry them. The OAN works tirelessly to ensure that laws and policies being created are in the best interests of our industry. They are dedicated to the long-term success, profitability, and excellence of Oregon's nursery and greenhouse industry.

The OAN has also been successful at seeing into the future. Through established relationships in and out of the industry, we are able to get a glimpse of potential rules and laws that could greatly impact our day-to-day, prior to them actually happening. Seeing ahead gives the OAN the opportunity to learn, prepare a plan, and then act intentionally for what's best for the industry in a timely manner.

If you are on the fence about joining the OAN, I would extend to you the same invitation my father extended to me: participate, be involved, expand your perspective! Your membership allows the OAN to keep on providing personalized support, advocacy, and vision for the future. ☺



# Calendar

Get the word out about your event! Email details to [calendar@oan.org](mailto:calendar@oan.org) by the 10th day of the month to be included in the next issue of *Digger*.

## SEPTEMBER 14

### MT. HOOD CHAPTER TACO TRUCK PRE-HARVEST PARTY

The Oregon Association of Nurseries Mt. Hood Chapter will host a taco truck pre-harvest party from 5-9 p.m. Thursday, September 14 at J. Frank Schmidt Arboretum, 9500 S.E. 327th Ave., Boring, Oregon. The cost is \$20 per person. People can stay for an hour or 3-4. The social gathering with beer opening will start at 5, followed by the taco truck firing up at 5:45. Activities such as cornhole and disc golf will begin at 7 p.m. Simplot is the prime sponsor of the event. For more details, contact Scott Ekstrom at [scott\\_ekstrom@yahoo.com](mailto:scott_ekstrom@yahoo.com). You can find the event and register at [www.oan.org/event/mthoodseptember23](http://www.oan.org/event/mthoodseptember23).

## SEPTEMBER 18-20

### IMPACT WASHINGTON - THE SUMMIT

Green industry advocates will benefit from meeting lawmakers and subject matter experts during the annual Impact Washington event, hosted by national green industry trade group AmericanHort. The conference will take place at the DoubleTree by Hilton, 300 Army Navy Drive, Arlington, Virginia. Former Maryland governor Larry Hogan will deliver a keynote presentation. Additional speakers and details will be announced. The hotel booking deadline will be August 28. For more information and to register go to [www.americanhort.org/impact-washington-summit](http://www.americanhort.org/impact-washington-summit).

## SEPTEMBER 21-24

### NORTH AMERICAN JAPANESE GARDEN ASSOCIATION WORKSHOP

The Gresham Japanese garden and the North American Japanese Garden Association will host a Regional Workshop from Thursday through Sunday, September 21-24 at the Gresham Japanese Garden, 219 S. Main Ave., Gresham. Participants will have the opportunity to tour the healing garden at the Oregon State Penitentiary in Salem, which is the only maximum security prison with a Japanese garden maintained solely by adults in custody. They will enjoy a rare opportunity for members of the public to tour three of the top wholesale nurseries in Multnomah County, including Iseli Nursery, J. Frank Schmidt & Son Co., and Bentwood Tree Farm. There will be presentations at the Gresham Japanese Garden, with many presentations and opportunities to learn more about it, as well as a work project, to include building a paver path and planting the landscape. Find the complete agenda and register at [NAJGA.org](http://NAJGA.org).

## SEPTEMBER 22

### NWREC HARVEST DINNER

The annual Harvest Dinner at Oregon State University's North Willamette Research and Extension Center (NWREC) in Aurora, Oregon,



## OCTOBER 27-28

### OAN CONVENTION

The 2023 Oregon Association of Nurseries' Convention is set for Friday and Saturday, October 27 and 28, at Brasada Ranch resort in Powell Butte, located in Central Oregon near the city of Bend. Situated on over 1,800 acres, Brasada Ranch is a modern mountain retreat with panoramic views, award-winning golf at Brasada Canyons, massage and body treatments at Spa Brasada, and curated experiences ranging from sunset horseback rides to live concerts with local musicians and farm-to-table dinners. The OAN Convention is the annual can't-miss event featuring updates on important green industry issues, new board introductions, celebrating the outgoing board, and honoring the best the nursery industry has to offer. For the latest details, keep checking [www.oan.org/convention](http://www.oan.org/convention). For sponsorship opportunities, contact Allan Niemi, OAN Director of Events, at [ANIemi@OAN.org](mailto:ANIemi@OAN.org) or 503-582-2005.

is an event to celebrate the success of various research and extension programs. NWREC faculty, staff, OSU leaders, elected officials, and stakeholders join this popular event to appreciate and celebrate efforts to address stakeholder needs, contribute to thriving local economies, and promote healthy communities and environment. Beer, wine and appetizers will begin at 5 p.m., followed by dinner at 6:30 p.m. Cost is \$75/person. Details and tickets: <https://tinyurl.com/NWREC-harvest-23>.

## OCTOBER 7

### AMERICAN CONIFER SOCIETY FALL RENDEZVOUS

The Western Region of the American Conifer Society is hosting this year's ACS Fall Rendezvous Saturday, October 7 in the Portland area. The event will include visits to Miller's Manor Gardens in Canby, Oregon, as well as Crowfoot Nursery in Sandy, Oregon, where participants can tour the gardens and purchase plants. The cost for the day is \$20 and transportation is not included. There will be drinks and light refreshments at each stop, but lunch is on your own. For more information, log on to <https://tinyurl.com/ACS-fall-23>, or contact Vinny Grasso, ACS Western Region president, at [VGrasso@EHRnet.com](mailto:VGrasso@EHRnet.com), or Larry Stanley, ACS Western Region director, at [conifer@teleport.com](mailto:conifer@teleport.com).

## NOVEMBER 1-4

### NATIONAL FFA CONVENTION & EXPO

The 96th annual Future Farmers of America (FFA) Convention & Expo will take place in Indianapolis, Indiana. FFA members and guests from across the country will participate in general sessions, competitive events, educational tours, leadership workshops, an expo and shopping mall, volunteer activities and more. Early bird registration opens September 20, followed by standard registration on October 11. Housing registration is already open. For more details, log on to [www.convention.ffa.org](http://www.convention.ffa.org).

## NOVEMBER 27-DECEMBER 1 2023 IRRIGATION SHOW AND EDUCATION WEEK

The Irrigation Association will present its 2023 Irrigation Show and Education Week from November 27-December 1 at the Henry B. González Convention Center, 3150 S. Paradise Road, San Antonio, Texas. The trade show portion of the event will be Wednesday and Thursday, November 29-30, with other events happening all week. The gathering will offer unique education opportunities, access to the latest in irrigation technology and networking within a community of peers, all in one place. Registration is now open, exhibitors are being accepted and lodging is available. The early bird registration deadline is October 16. For full details, log on to [www.irrigation.org/2023Show/](http://www.irrigation.org/2023Show/).





**Above:** Representatives of Farwest's eight 50-year exhibitors cut the cake in celebration, including (l-r) J. Frank Schmidt III, J. Frank Schmidt & Son Co; Jock Demme, Iseli Nursery; Sean Eaton, Gold Family Farms; Bill Moyer, Briggs Nursery; Rick Anderson, Anderson Pots; Jimmy Kuon; Bailey Nurseries; Jake Rasmussen, Monrovia; and Pat Hughes, Everde Growers.



**Left:** Morgan Stewart, Laura Walsh, Virpi Kangas, Erica Hernandez and Cynthia Robinson enjoy the Women in Horticulture networking event.

PHOTOS BY CARLY CARPENTER

# Celebrating 50 years in style

BY CURT KIPP AND VIC PANICKUL

**T**he 2023 Farwest Show celebrated 50 years of bringing nursery professionals together in style August 23–25, with more exhibitors, more attendees — and definitely more fun.

“The nursery and greenhouse industry is Oregon’s leading agricultural sector,” said Allan Niemi, director of events for the Oregon Association of Nurseries, which produces Farwest. “The Farwest Show put that on full display, with many different growers, suppliers and service providers all there to learn, make connections, do business and just grow, in every sense.”

The show brought together more than 4,000 attendees from 14 countries and 44 states for two sold-out nursery tours,



a diverse array of educational seminars, a full floor of expo booths, four social gatherings, and a bundle of surprises celebrating the show’s five decades of existence.

Those surprises included a 28-piece marching band weaving throughout the show floor (The Beat Goes On) complete with dancers and a baton twirler; a bagpiping unicyclist (the Unipiper) going up and down the aisles, costumed in a kilt and a Darth Vader helmet; a 50th anniversary cake-cutting ceremony with plenty to go around; and a well-received visit

from the one and only Caesar the No-Drama Llama.

“We wanted to make the show fun and memorable, and it was, judging by all the people bringing out their cam-





**Above left:** Sam Bidwell (right) and Molly Doherty from Log House Plants share info on pollinator friendly plants during their seminar presentation. **Above right:** Keynote speaker Katie Tamony of Monrovia presents her thoughts on “How to See Differently.” **Below left:** Members of marching band The Beat Goes On entertain Claudia Loy, Kim Robinson and other attendees at the end of Day One of the Show. **Below right:** Fred deBoer of Mainland Floral and Gary “Bert” Bertelson toast to 50 years of success at the Farwest Happy Hour. PHOTOS BY CARLY CARPENTER

eras,” Niemi said. “I can’t tell you how many people took videos of the band and Unipiper, and selfies with Caesar the No-Drama Llama.”

But the show was more than fun moments. It was a worthwhile investment in personal and professional growth. Katie Tamony of Monrovia Nursery Company delivered a memorable keynote address, and there was a full complement of other seminars on marketing, Lean policy deployment, pricing, plants, pest control and more.

Tanner Spirs of Agri Spray Drones in Boonville, Missouri, learned a lot from other exhibitors as well as attendees. “It’s been a chance for me to build my knowledge,” he said. “We don’t have any cus-

tomers here but we’re learning what we need to do to accomplish that. We plan to be back next year.”

As a first-time visitor, Mike Laporte

**“It was a great show. There were a lot of horticulturalists here, and that’s our audience”**

— Nathan Dorn,  
 >\_Farm-Ng, Watsonville, California

of Clearview Nursery in Stayner, Ontario learned about new products by his existing suppliers, and also met some new ones. “I’m used to landscapers’ shows

where there’s bricks and hardscape products,” he said. “This was very focused on nurseries, and it was very refreshing.”

Yoshida Hamono of Hoshida Hamono, a wholesale supplier of garden tools from Japan, was exhibiting at her first Farwest Show. “The vibe of people coming was really great,” she said through a translator. “We are getting great feedback and with that we hope to become a better exhibitor next year. We thought that people here would not be familiar with us, but we were surprised to find that a few attendees who stopped by knew who we were and were pleasantly surprised to see us.”

“It’s been a great show for us,” said John Porter of Sol Soils in Crystal, >>



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## Farwest Show 50th Anniversary Celebration



**Top:** Erica Hernandez and Cynthia Robinson applaud while attending a Farwest educational seminar.

PHOTO BY CARLY CARPENTER

**Middle:** OAN President Todd Nelson, Farwest Show Chairman Robb Sloan and Executive Director Jeff Stone cut the ribbon on the 50th Farwest Show.

PHOTO BY CARLY CARPENTER

**Bottom:** Cindy Lou Pease of Evans Farms and another guest visit with celebrity guest Caesar the No Drama Llama on Day Three of Farwest.

PHOTO BY CURT KIPP



Minnesota, another first-time exhibitor. "We met a lot of new customers and potential customers."

First time Farwest exhibitor Nathan Dorn of >\_Farm-Ng, a manufacturer of electric robotic tractors based in Watsonville, California, found many people in search of ways to manage their labor costs. His product offers exactly that, so he found strong interest. "It was a great show," he said. "There were a lot of horticulturalists here and that's our audience."

Longtime exhibitor Pac Fibre Soils of Canby, Oregon came with a strategy to bring fun and business connections together. They created a treasure hunt with four other exhibitors on the expo floor, including Western Pulp Products Company, Walla Walla Nursery Co., Blooming Nursery and OBC Northwest Inc.

Attendees stopped at each booth, putting together their own plant in a container to take home. Returning to Pac Fibre's booth, they could then claim a bonus prize of a Pac Fibre beverage bottle. This fun treasure hunt brought extra traffic and engagement to all five booths.

"Everyone loved it," said Nate Marsh, sales manager for Pac Fibre. "It brought in new contacts. It was that soft opening for people that probably wouldn't have looked at us." He went on to say that the 2023 Farwest Show was "probably the best it's been in five years. Seeing where your network takes you opens up new possibilities." ☺

# Youngblood Nursery Inc. wins Best in Show booth award

**W**hen it came to creating booths that will attract attendees, this year's Farwest Show exhibitors weren't short on creativity. Judges walked the floor to find the best of the best, recognizing several winners with the Ted Van Veen Best in Show booth awards for 2023.

"There were truly some amazing displays of creativity this year and there was no shortage of competitive spirit," Show Director Allan Niemi said.

Winning the overall **Best in Show booth award** was **Youngblood Nursery Inc.** of Salem, Oregon, for their booth containing tropicals, perennials, shrubs, grasses and more. Youngblood also won for Best 10x20 or Larger Row Booth.

The Best in Show booth award comes with a free 10x10 booth space for the 2024 Farwest Show. Other Best of Division award winners included:

**Growers:** Best 10x10 Booth – **Blooming Nursery**, Cornelius, Oregon; Best Island Booth — **Monrovia Nursery Company**, Azusa, California.



Troy Youngblood and Mackenzie Allaert of Youngblood Nursery with Farwest Show Chairman Robb Sloan of Noname Nursery. PHOTO BY VIC PANICHKUL

**Service and Supply:** Best 10x10 Booth – Mossify, Markham, Ontario, Canada; Best 10x20 or Larger Row Booth – Northwest Nursery Buyers Association, Welches, Oregon; Best Island Booth — **GK Machine Inc.**, Donald, Oregon.

The show also recognized exhibitors

who put extra creativity into their booths with three **Far From Ordinary booth awards**. Winning that award this year were: **Alpha Nursery**, Salem, Oregon; **Bountiful Farms Nursery Inc.**, Woodburn, Oregon; and **Leonard Adams Insurance Inc.**, Portland, Oregon. ☺

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## Eclipse® Hydrangea, Variegated Frydek Elephant Ear capture top New Varieties Showcase accolades

**F**arwest attendees proclaimed Eclipse® Hydrangea (*Hydrangea macrophylla* ‘Eclipse’ PP35544, USPP, CPBRA) as the People’s Choice winner in the 2023 New Varieties Showcase and the professional judges handed the Best in Show award to Variegated Frydek Elephant Ear (*Alocasia micholitziana* ‘Frydek Variegata’). Both were among the 59 outstanding new selections on display at the 2023 Farwest Show, held August 23-25 at the Oregon Convention Center in Portland.

The Eclipse® Hydrangea, bred by Bailey Innovations™ and introduced by **Bailey Nurseries** based in St. Paul, Minnesota, is the first true dark-leaf *Hydrangea macrophylla* on the market according to Bailey. Its intense, dark purple foliage holds its color, even in sunny warm climates. The striking foliage, paired with gorgeous dark-purple- or cranberry-colored blooms, will make a big impact at retail, in the garden, and in a decorative container. Eclipse® is a grower-friendly plant that offers excellent mildew and *Cercospora* fungus resistance, holds up well in a garden center, and is a standout in the landscape. It grows to 3–5 feet wide by 3–5 feet tall, and is hardy in zones 5a–9b. It is available as #2 and #5 containers and JumpStart liners.

The Variegated Frydek Elephant Ear, discovered in the Philippines, was introduced by Andrej Suske and **Cascade Tropicals LLC** based in Snohomish, Washington. This variegated elephant ear is

a sought-after form of ‘Frydek’, for its unique variegation on velvety, soft foliage. Its mature leaves can get up to 18 inches long. It grows to 3 feet wide by 3 feet tall, and is hardy to zones 10a–12. It is available as 2-inch and 4-inch containers.

Runners up in the People’s Choice voting included: Banana Split® Winter Daphne (*Daphne odora* ‘Monzulzay’ PP35217), discovered by Cesar Velazquez and introduced by **Monrovia Nursery Company**; Variegated Frydek Elephant Ear (*Alocasia micholitziana* ‘Frydek Variegata’), introduced by Suske and Cascade Tropicals LLC; and Leprechaun Arborvitae (*Thuja standishii* × *plicata* ‘Leprechaun’ PP33840), discovered and introduced by Frank Kogut of Kogut Nursery LLC, Connecticut.

Runners up in the judges’ voting included: Double Scoop™ Watermelon Deluxe Coneflower (*Echinacea* × *hybrida*, ‘Balscmelux’ PPAF), hybridized by Ping Ren in Elburn, Illinois, and introduced by Darwin Perennials; Banana Split® Winter Daphne (*Daphne odora* ‘Monzulzay’ PP35217), discovered by Cesar Velazquez and introduced by Monrovia Nursery Company; and Peppermint Patty Heartleaf Bergenia or Pigsqueak (*Bergenia cordifolia* ‘Peppermint Patty’ PPAF CPBRA), hybridized by Hans Hansen at Walters Gardens in Zeeland, Michigan and introduced by Walters Gardens/Proven Winners.

All the 2023 New Varieties Showcase selections are viewable at <https://FarwestShow.com/new-varieties-showcase/>. ©

**Best in Show winners (above, 1-r):** Eclipse® Hydrangea and Variegated Frydek Elephant Ear. **Runners up (below, 1-r):** Banana Split® Daphne, Leprechaun Arborvitae, Double Scoop™ Watermelon Deluxe Coneflower, and Peppermint Patty Heartleaf Bergenia.





The 2023 Farwest Retailers Choice Award winners were chosen by show attendees. **Top row (l-r):** Silver Swirl Centaurea from Ball Seed, Frosted Sapphire Bliss Petunia from Ball Seed, Alley Cat Eastern Redbud from Bountiful Farms Nursery and Old Fashioned Smokebush from Youngblood Nursery Inc. **Bottom row (l-r):** Guatemala® Gold Coneflower from Monrovia, Dragon Baby™ Hardy Hydrangea from Van Belle Nursery, Moonstone® Spruce from Iseli Nursery and Liberty Belle Boxwood from NewGen Boxwoods.

## Eye-catching discoveries win Retailers' Choice Awards

**F**ifteen eye-catching products caught the eyes of judges and were lauded with Retailers' Choice awards at the 2023 Farwest Show in Portland, Oregon.

The awards were presented August 24 in a presentation emceed by Danny Summers, managing director of The Garden Center Group. Both live goods and hard goods were eligible.

"Judges based their decisions on whether or not they were interested in carrying the products," Summers said. "Some of the products were also honored at other trade events, echoing the sentiments of other retailers about the potential popularity of the products with consumers."

**Ball Seed Company** had three selections and **Monrovia Nursery Company** had two selections, while 10 other exhibitors had one each.

One of the winners, Variegated Frydek Elephant Ear (*Alocasia micholitziana* 'Frydek Variegata') from **Cascade Tropicals LLC**, also won Best in Show in the New Varieties Showcase and Eclipse® Hydrangea (*Hydrangea macrophylla* 'Eclipse' PP35544, USPP, CPBRA) won the People's Choice award.

Other award winners included Darwin Silver Swirl Centaurea (*Centaurea ragusina*), offered by **Ball Seed Company**; Frosted Sapphire Bliss Petunia (*Petunia hybrida*), offered by >>

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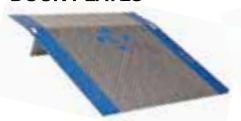
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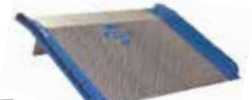
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## Farwest Show 50th Anniversary Celebration

Ball Seed Company; Echinacea Double Scoop Watermelon (*Echinacea x hybrida*), offered by Ball Seed Company; Alley Cat Eastern Redbud (*Cercis canadensis* 'Alley Cat'), offered by **Bountiful Farms Nursery**; Sweetfern (*Comptonia peregrina*), offered by **Briggs Nursery**; BP4LI Battery Operated Backpack Sprayer, offered by **Dramm Corp.**; Moonstone<sup>®</sup> Spruce (*Picea pungens*), offered by **Iseli Nursery**; Banana Split<sup>®</sup> Daphne (*Daphne odora* 'Monzulzay'), offered by **Monrovia Nursery Company**; Guatemala<sup>™</sup> Gold Coneflower (*Echinacea x 'Guatemala Gold'*), offered by **Monrovia Nursery Company**; Liberty Belle Boxwood (*Buxus sinica* var. *insularis* 'RLH-BI' PP24443), offered by **NewGen Boxwood**; Monstrella wall-mounted trellis, offered by **TreLeaf**; Dragon Baby<sup>™</sup> Hardy Hydrangea (*Hydrangea paniculata* 'HYLV17522' PPAF, CPBRAFF) offered by **Van Belle Nursery**; and Old Fashioned Smokebush (*Cotinus coggygria* 'Old Fashioned' PP19035), offered by **Youngblood Nursery Inc.** ©



Dramm's battery operated backpack sprayer (top) and Monstrella's TreLeaf wall-mounted plant supports (left) were among the Retailer's Choice Awards selections at Farwest 2023.



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# Northwest News

OAN members and chapters are encouraged to send in relevant news items, such as new hires, new products, acquisitions, honors received and past or upcoming events. Email [news@oan.org](mailto:news@oan.org).



AmericanHort

## Record-breaking numbers reported for H-2B applications

On July 10, the U.S. Department of Labor announced it had received applications for 40,947 workers during the three-day filing window for the first-half cap (October 1, 2023–March 31, 2024 start dates), exceeding the 33,000 allotments. This is the earliest that the first-half cap has ever been hit.

The Office of Foreign Labor Certification completed the randomization process on July 6 and assigned to National Processing Center analysts all H-2B applications placed in Assignment Group A for review, with the overflow of applications exceeding the 33,000 cap placed into a separate group. Through the randomization process, every filing was assigned a random and unique number and grouped accordingly for review and processing by analysts.

For more information about how to utilize the H-2A and H-2B labor programs, AmericanHort and másLabor have teamed up to provide a three-part series of prerecorded webinars, which are available now. Classes are free for AmericanHort members and \$99 per class for nonmembers. For more information, see [www.americanhort.org/navigating-h-2a-h-2b/](http://www.americanhort.org/navigating-h-2a-h-2b/).



The Farwest Show was started in 1973 in Portland, Oregon, and initially was held in the Memorial Coliseum exhibition halls. Every edition of the show has been held in Portland, except for one year in Seattle. It was later moved to the Oregon Convention Center when that facility opened, and will remain there for the foreseeable future. OAN FILE PHOTO

## FARWEST SHOW WILL REMAIN IN PORTLAND FOR 2024 AND BEYOND

The Farwest Show will remain at the Oregon Convention Center



for 2024 and into the foreseeable future, OAN leaders and staff have determined.

“Over the past year, we felt the concerns that some have raised about COVID-era conditions in Portland, and we knew it was important to explore various alternate locations in light of the ongoing needs of the show,” OAN Executive Director Jeff Stone said. “Ultimately, we found that the Oregon Convention Center is the only event venue in the state of Oregon with the adequate size, scale and services to accommodate the needs of Farwest going forward.”

The 2023 Farwest Show expects to serve more than 4,000 guests when it opens next week, and nearly 350 exhibitors will be there.

“We looked at other venues,” OAN Director of Events Allan Niemi said. “None of them have the room to accommodate all the booths and peo-

ple that come to Farwest, let alone the educational seminars and other show features that we offer. We even looked at going to a smaller venue. That would require putting some exhibitors outside in tents, and even then, it’s questionable who all would fit. The Oregon Convention Center easily handles all our needs and offers us the space that lets us grow again.”

The OAN did hear concerns from some about the state of Portland.

“We all have hated to see what has happened with Portland over the pandemic, with the state of homelessness,” OAN President Todd Nelson said. “It’s a problem that takes time to address, and it’s affecting more than Portland but smaller communities as well. That said, we have seen improvement in conditions downtown. Although Portland is not out of the woods, the Convention Center and Lloyd District neighborhood is in better shape, and the city overall is on a more positive trajectory back to pre-COVID conditions.”

The post-COVID recovery and the industry’s strong growth are positive signs for the nursery industry and for Farwest.

“For 50 years, Farwest has been a grand >>>

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## Northwest News

Nurseries are adapting to the phaseout of the agricultural overtime exemption in Oregon.

OAN FILE PHOTO.

showcase for Oregon growers, who are the best in the country at what they grow,” Stone said. “The industry is growing and the show should grow along with it. Visitors to Farwest next week will find a celebratory mood, more exhibitors to visit, a compelling lineup of seminars, great networking opportunities, and a whole host of ideas and products to help them grow their businesses.”

“Farwest truly took off when it moved to the then-new Oregon Convention Center in the early 1990s,” Niemi said. “It generated a sense of excitement and allowed new room for growth and interaction. It’s still the best convention and event facility in the state and region, making it a suitable home for Oregon’s largest segment of agriculture and the talented growers who drive the industry forward.”

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### OAN OBJECTS TO PORTLAND WATER PLANT PROPOSAL

The Oregon Association of Nurseries is objecting to a proposed City of Portland water treatment plant, to be sited on 95 acres of rural reserve farmland outside the Portland metropolitan area. The site is located east of Gresham, a major suburb.

According to OAN Executive Director Jeff Stone, the proposal would impact some 147 licensed nursery operations in the surrounding area, as well as 8,700 acres of high-quality farmland dedicated to nurseries and other agricultural operations. It would generate excessive construction traffic as well as irreparable impacts to native soils.

The proposal “involves some of the highest quality and most productive agricultural land in the state of Oregon,” Stone stated in a letter to a land use hearings officer in Multnomah County, where the facility would be located. “As proposed, it would remove and convert nearly 95 acres of rural, agricultural land to a facility that serves an urban metropolitan area.”

The City of Portland is under a mandate from the U.S. Environmental Protection Agency to filter its municipal water supply. Up to now, the city has been excused from requirements to do so. The water comes from a protected municipal



watershed in the Cascade Mountains, on the western flanks of Mt. Hood

Oregon land use law has had strong protections for agricultural land for five decades. The law requires the state, cities and regional planners to carefully manage the supply of buildable land, while keeping the best farmland off limits as much as possible. The law was passed in the 1970s, amid mounting concern about urbanization of farmland, particularly the Willamette Valley south of Portland, where nurseries and other agricultural land uses are concentrated.

According to Stone, the proposed water plant encourages urban encroachment on agricultural lands. Allowing it to move forward would generate precisely the types of negative impacts that Oregon’s land use laws are supposed to prevent.

Under the state’s rules, urban uses in rural reserve areas are only allowable if they don’t force a significant change in accepted farm and forest practices, or make such practices more costly. The proposal will do both of those things, not only for the highly disruptive six-year buildout of the plant, but afterwards, Stone said. Portland should site its plant elsewhere, he concluded.

“The city does not need quality soil in order to grow quality plants,” he stated. “We do.”

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### OREGON REPORTS NO COMPLIANCE PROBLEMS YET WITH AG OVERTIME

Oregon’s agricultural worker overtime law has been in effect for seven months now, and so far, according to the Oregon Bureau of Labor and Industries, no complaints have been received about companies not comply-

ing with it, the Oregon Capital Chronicle online news site reported.

However, farmworker advocacy groups said that few Oregon farmworkers will hit this year’s 55-hour threshold that triggers the overtime pay requirement, so not much overtime pay will be due. Additionally, some might delay reporting any wage theft due to fear of retaliation.

“Many workers don’t make wage claims until the end of the season so they aren’t fired,” Kate Suisman, an attorney with the Northwest Workers’ Justice Project, stated in an email. She said many farmworkers are just now learning that they are entitled to overtime pay after 55 hours.

Oregon’s ag overtime threshold will fall to 48 hours in 2025 and 40 hours in 2027. Both Washington’s and Oregon’s laws attempt to rectify a historic omission of farmworkers from key labor laws meant to protect workers. In the 1930s, the National Labor Relations Act and the Fair and Labor Standards Act left out farmworkers, who are predominantly people of color, immigrants and low-income.

Farm owners and industry groups say that at 55 hours, the overtime rules don’t affect them as much as they will in the years ahead. The law steadily lowers the threshold for overtime pay, so that by 2025, farm owners will need to pay overtime after 48 hours, and by 2027, they’ll need to pay after 40 hours. In Oregon, where the current minimum wage is \$14.20 per hour, that means agricultural workers logging overtime should receive at least \$21.30 per hour.

“Fixing the agricultural overtime bill remains the top legislative priority for the association and will be a focus in 2024,” OAN Executive Director Jeff Stone said.

## MORE THAN 40 MILLION LIVING IN U.S. URBAN 'HEAT ISLANDS'

Researchers with the organization Climate Central found that a majority of residents in 44 cities live in a census tract that experiences heat at least 8 degrees higher than surrounding rural areas, The Hill political news website reported. Cities are particularly vulnerable to extreme heat due to the replacement of vegetation and green space with surfaces like pavement, sidewalks and buildings that absorb more heat. This phenomenon is known as the "urban heat island effect."

Nine cities of 1 million or more residents were studied, and saw temperatures more than 8 degrees hotter than their rural neighbors. In eight cities — Dallas, Detroit, Houston, New Orleans, New York, Omaha, Portland (Oregon), and San Antonio —

more than two-thirds of residents face comparable excess heat.

The OAN and the Plant Something program have long promoted plants and trees as a solution to the urban heat island effect, and the OAN has further fought to have this benefit recognized in law.

"Our industry grows solutions to climate change," OAN Executive Director Jeff Stone said. "Oregon wants to regulate carbon and impose cost, with the funds going to pay for mitigation. It so happens that our products provide that exact mitigation. We won passage of a tree canopy bill in this recent session of the Oregon Legislature, and we hope that becomes a national blueprint. If we want to encourage solutions and not just regulate problems, it makes all the sense in the world."

## EPA PROPOSES PESTICIDE BAN IN AREAS OF OREGON, WASHINGTON

The U.S. Environmental Protection Agency (EPA) has proposed banning most pesticide uses in several pilot areas across the country, including two areas in Western Oregon and several more in Western Washington. The proposed bans in Oregon and Washington are intended to protect the endangered Taylor's checkerspot butterfly, but ag and environmental groups alike consider the proposal excessive.

"It's incredibly extreme and unnecessary," Katie Murray, executive director of the Oregonians for Food and Shelter agribusiness group, told the *Capital Press* agricultural newspaper (Salem, Oregon).

Lori Ann Burd, a senior attorney with the Center for Biological Diversity >>

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nonprofit, agreed the regulated areas are excessive. “We actually agree the areas they’ve proposed for avoidance are over-broad,” she said.

The Oregon Association of Nurseries is wary of this proposed regulation and monitoring closely. “We are working with agricultural allies on this and we will have our own comments on it, as well,” OAN Executive Director Jeff Stone said. “It’s all driven by lawsuits against the EPA by the Center for Biological Diversity. They say this isn’t their intended result, but I have my doubts.”

Under EPA’s proposal, aerial and broadcast spraying of all conventional pesticides would be prohibited with some exemptions, such as indoor, residential and “small scale spot-treatment applications.”

The areas in question cover more than a million acres. They include two circular areas around Eugene and Corvallis, plus various swaths in Washington from Tacoma and southward nearly to Kelso, along the Northern Olympic Peninsula, and the northern Salish Sea including Whidbey Island, the San Juans and an area from Marysville north to past Mt. Vernon. Some of these are key nursery production areas, particularly those around Corvallis, Eugene and Mt. Vernon.

The OAN and AmericanHort have signed on to a letter by the American Soybean Association, and are urging other nursery associations nationally to do the same.

### NEW SURVEY GAUGES OREGONIANS’ OPINIONS ON FARMS

The Oregon Values and Beliefs Center recently surveyed Oregonians regarding their attitudes about farming. The center is a nonpartisan nonprofit that researches public opinion to inform the policy positions of lawmakers, advocates and others. The survey is the center’s first to measure statewide beliefs about agriculture, according to a *Capital Press* report.

Oregonians who took the survey expressed broad support for small-scale farmers across demographic groups: 83% of respondents reported positive views of small

farms, while only 16% were ambivalent and 1% had negative associations.

Opinions were divided about large-scale farms: 25% viewed them positively, 29% viewed them negatively and a 46% plurality saw them neither negatively or positively.

However, 63% of survey respondents agreed large-scale farms are necessary to ensure sufficient food for the population, while only 19% disagreed with that statement. The remainder said they didn’t know or that it depended on crop type.

“This survey shows there’s still a ton of work to do here,” said OAN Executive Director Jeff Stone.

### MT. HOOD CHAPTER GOLF EVENT DELIVERS FUN, FUNDS

Some 56 growers and allied OAN members made connections and had a lot of fun at the annual Mt. Hood Chapter Pitch n’ Putt golf event July 26 at Edgefield Golf Course in Troutdale.

This year’s theme was built around *Tin Cup*, a golf movie with Kevin Costner, Don Johnson and Cheech Marin. The tournament raised funds for upcoming chapter events, including the Pioneer Harvest Party and the annual Christmas Party at Yunki’s on the Sandy River.

Top sponsors Kernutt Stokes CPAs and Simplot covered the cost of the bar tab and special event golf towels. Some 15 other sponsors covered golfing costs. “We are saying thank you so much, as all of the support and attendance has helped keep our other events affordable and family friendly,” organizer Scott Ekstrom said.

Ekstrom singled out new chapter board members Brooke Jerie (Iseli Nursery) and Brad Marjama (Don Marjama Nursery Co.) for helping to organize. Additionally a number of prizes were given:

- **Best Hole Display:** Kernutt Stokes
- **Best Swag:** Crux Insurance Burlap Koosie
- **Longest Marshmallow Drive:** at 132 ft. Henry Golb representing Marion Ag
- **Inaugural Hole in One at Mt Hood Pitch and Putt:** Don Ekstrom

representing Ekstrom Nursery Inc.

- **Youngest Golfer:** Trey Seida at 14 years old representing HD Fowler
- **Longest supporter of Mt Hood Chapter Events:** Janet Poncelet representing BFG Supply Group.

### STREAMLINED ESTATE TAX RELIEF FOR OREGON FARMS BECOMES LAW

Oregon Gov. Tina Kotek has signed a streamlined tax relief measure for farm estates into law, the *Capital Press* agricultural newspaper (Salem, Oregon) reported.

Senate Bill 498 is meant to ease succession problems for family farm, forest and fishing estates with a tax exemption for operations worth up to \$15 million. It creates an exclusion from the estate tax for any interest in natural resource property that is held by a decedent for at least five years prior to death and is transferred, at the time of death, to one or more family members of the decedent. It applies to the estates of decedents dying on or after July 1, 2023.



Henry Golb representing Marion Ag Service hit the longest marshmallow drive at the Mt. Hood Chapter Golf Event in July.

Kyle Fessler of Woodburn Nursery & Azaleas Inc. (Woodburn, Oregon), and Jonathan Jasinski of Microplant Nurseries Inc. (Gervais, Oregon) graduated from the HRI Leadership Academy in July.



There are approximately 37,000 farms in Oregon averaging 423 acres in size, and 96.7% are family-owned.

“We need to do all we can to help families stay farming,” said Sen. Bill Hansell (R-Athena), a chief sponsor of the bill. Otherwise, larger entities may “gobble up” available farmland once owned by families, he said.

## Announcements

### OREGON GROWERS TAKE PART IN HRI LEADERSHIP ACADEMY

The inaugural class of the Horticultural Research Institute (HRI) Leadership Academy presented the results of their real-world leadership projects at the Cultivate’23 trade show, presented by AmericanHort, from July 15-18, 2023, in Columbus, Ohio.

Managed through HRI and supported

by AmericanHort, the program is designed to help ensure a strong future for the green industry by developing leaders at all levels of the industry. The one-year program for 12 to 15 students consists of both in-person training sessions and virtual online classes. In-person sessions for the inaugural class began in September 2022 in Denver,

Colorado. Course principles were put to practical application through course-long leadership projects, which were presented at Cultivate’23.

Kyle Fessler of Woodburn Nursery & Azaleas Inc. and Jonathan Jasinski of Microplant Nurseries Inc. presented before a packed room of industry lead- ➤

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ers, including HRI President-Elect Leigh Geschwill of F & B Farms & Nursery, on the LEAD Project. LEAD was a year-long assignment in which participants Learn and research an industry issue, Engage with their team and others, Adopt a position and solution, and Deliver an analysis and recommendations.

OAN Executive Director Jeff Stone has asked HRI Leadership Academy members to present their report during the OAN Annual Convention, taking place October 27-28, 2023, at Brasada Ranch in Powell Butte, Oregon.

**VIC PANICHKUL JOINS STAFF OF OAN AND DIGGER**

Vic Panichkul, a former writer and editor with the *Statesman-Journal* newspaper (Salem, Oregon) has joined the Oregon

Association of Nurseries as publications manager. He started work August 17 and will work on *Digger* magazine, the OAN Member Update, the OAN's Plant Something Oregon newsletter for gardeners, and various other OAN publications.

For *Digger* specifically, he will serve as managing editor and art director, and work with the publication's team of contributing writers.

"We are excited to have Vic join our team," said Curt Kipp, OAN director of publications and communications and editor of *Digger*. "We were impressed to meet him. He's a great fit for the OAN staff as well as the nursery industry, and brings tremendous skills, vision, perspective, and experience to



help us enhance what we do for members and readers."

Panichkul has been an avid gardener and nature lover and said he was excited to bring his passion for plants and his journalism skills to his new role.


"I'm looking forward to expanding my horticultural knowledge and using my journalism experience to help grow the OAN," he said.

He holds a journalism degree from Baylor University and has worked for *The Springfield News-Leader* in Missouri, the *Austin American-Statesman*, the *Fort Worth Star-Telegram* and *The Baltimore Sun* in various capacities including reporting, editing and designing pages.

Vic can be reached at VPanichkul@OAN.org or 503-582-2009.

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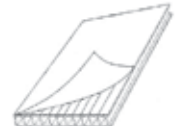
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Pollinator-friendly, mildew-resistant *Phlox paniculata* 'Jeana' was named Perennial Plant of the Year for 2024.

## 2024 PERENNIAL PLANT OF THE YEAR ANNOUNCED

*Phlox paniculata* 'Jeana' has been named the 2024 Perennial Plant of the Year by the Perennial Plant Association.

The plant is described as “an exceptional garden phlox reaching five feet tall and four feet wide,” though size may vary. Noted were its “impressive flowers, held on tall and sturdy stems from midsummer to early fall.” It was lauded as a pollinator friendly plant, attracting hummingbirds and butterflies in particular.

PPA members voted *Phlox paniculata* 'Jeana' as the 2024 PPOY and find it makes an excellent bridging plant between early and later flowering perennials. It is also highly resistant to powdery mildew which makes it look great, even without flowers.

The Perennial Plant of the Year® program began in 1990 to showcase a perennial that is a standout among its competitors. Perennials chosen for this honor are suitable for a wide range of growing climates, require low maintenance, have multiple-season interest, and are relatively pest/disease-free.

The Perennial Plant Association Board of Directors reviews the nominated perennials

and selects three or four perennials to be placed on a voting ballot. PPA members vote for the winner and nominate additional plants for the following year's ballot.

## TERRA NOVA WINS TWO TOP PLANT AWARDS IN GEORGIA

On June 10, the University of Georgia hosted open houses for the industry and the public to vote for their favorite plants for 2023. Terra Nova Nurseries, a wholesale grower based in Canby, Oregon, took two of the top three slots, appearing on both the industry and public lists.

Judges described *Crococsmia* NOVA 'Gold Dragon' by Terra Nova as “Dramatic. Thrilling. Elegant. How does the bashful crococosmia win, compared to an overflowing basket of petunias or a bursting bed of sunflowers? If you have a moist sunny location, crococosmia will give you and your neighbors an endless supply of flowers.”

*Echinacea* SUNDIAL 'Pink', also by Terra Nova, was singled out for its size, massive 5-inch blooms; with a short habit, which makes it ideal for containers or in the front of beds and borders; and its color >>

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## Northwest News

— emerald green eyes give way to a vibrant pink cone and bubble gum-pink petals.

Rounding out the top 3 was *Rudbeckia* MiniBeckia 'Flame' by GardenChoice. "This superstar has been on trial for a few seasons, and seems to keep getting better every year with perfect symmetry and powerful color!" the judges said. ☺

*Crocosmia* NOVA 'Gold Dragon' and *Echinacea* SUNDIAL 'Pink', both by Terra Nova Nurseries in Canby, Oregon, were singled out for praise at an open house hosted by the University of Georgia.





Exclamation!™ London Planetree (*Platanus × acerifolia* 'Morton Circle') is a good, disease-resistant selection ideal for urban canopies, maturing to 40–50 feet wide and 55–65 feet tall.

PHOTO COURTESY OF J. FRANK SCHMIDT & SON CO.



## The replacements

Overreliance on certain trees often prompts the need to turn to newer varieties in place of faltering favorites

BY ERICA BROWNE GRIVAS

**W**HEN IT COMES TO CHOOSING TREES, there's a tendency to opt for reliable favorites. But what happens when a tree falls victim to its success?

Whether a borer, fungus, or weather brings it down, or the tree is bringing down paving and buildings, nurseries need new options. Let's look at some replacements for some of the more challenging popular trees out there, from shade trees and flowering fruit trees to conifers for strong replacements and planting strategies.

If there's one thing nature abhors nearly as much as a vacuum, it's homogeneity. When single varieties are planted en masse, whether as gracious street allées, groves in developments, parks and college campuses or nursery growing fields, it creates a monoculture. Lacking diversity, monocultures are extremely vulnerable to disease, pest, and environmental pressure.

Probably the most well-known example of a monoculture collapsing is the deadly Irish Potato Famine in the 1840s, but among trees, it's the fall of the American Elm.

Beloved for their welcoming umbrella-like canopies, American elms (*Ulmus americana*) once lined Elm Streets in cities big and small.

Sometime in the early 1900s, two species of fungi, *Ophiostoma ulmi* and *Ophiostoma novo-ulmi*, abetted by two different bark beetles, hijacked on some imported European logs meant for furniture. Carrying Dutch elm disease, which was first seen in the Netherlands in 1921, the fungi can travel along adjacent tree roots to rapidly spread to an entire row. By 1970, several epidemics had felled the king of American street trees, having killed hundreds of millions of them.

While both native American elm and European elms are susceptible, Asian species (*U.pumila* and *U.parviflora*) are resistant. Thanks to years of breeding work, clonal varieties of American elms like 'American Liberty', 'Independence', 'Princeton', 'New Harmony' and 'Valley Forge' are available today.  
<https://tinyurl.com/Dutch-Elm-Wisc>



## The replacements

The catalog of wholesale grower **J. Frank Schmidt & Son Co.** (Boring, Oregon) recommends using stock grown on its own roots or grafted onto Asian elms to prevent Dutch elm disease.

### When the default disappears

Elm, of course, isn't the only staple tree to suddenly or gradually require a replacement.

Dr. Bert Cregg, now professor of horticulture at Michigan State University, had a front-line seat at the arrival of emerald ash borer (*Agrilus plagiipennis*), often abbreviated as EAB. The insect likely arrived in North America sometime in the late 80s or early 90s, and attacks green ash (*Fraxinus pennsylvanica*).

"Michigan is the home of emerald ash borer if we want to claim that," Cregg said. "The epicenter was near the airport. It was probably here about 10 years before it was discovered."

The larvae hijacked in on some packing material. Soon it seemed like the dark nursery song "Ring Around the Rosie" had come to life, only the ashes were the ones falling down. "Overnight our nurseries had to cut down and burn up trees," he said.

Such cuts were felt deeply since green ash was the "bread and butter" for many growers.

"The moving target is always the exotic pests," Cregg said. Globalization brings both pests and people together, accelerating the introduction of pests, he said. "I think the nursery trade needs to be self-reflective and look at the extent they can be proactive. The regulators are always going to be slower."

He says the best nurseries are already training employees for scouting for pests, vetting their sources, and paying attention to where their material is going.

Working with colleagues in the horticulture and forestry departments as well as the local extension office, Cregg helped create a dedicated arboretum <https://tinyurl.com/MSU-arbor> showcasing 40 green ash alternatives in 2003 at MSU.



Bloodgood Planetree (*Platanus x acerifolia* 'Bloodgood') is noted for its mottled bark, which adds visual interest. It's widely planted in urban areas and recommended by the City of Chicago.

PHOTO COURTESY OF J. FRANK SCHMIDT & SON CO.

While looking for alternatives, “The thought process is, ‘What did ash do for us?’” Cregg said. “In a lot of ways even for the Northwest, but especially the Midwest and the Northeast, green ash was sort of the default. It was the tried-and-true, tough-as-nails tree to pick if nothing else is going to grow there. In terms of size, it’s kind of a medium-to-large shade tree. What’s going to fill that void?”

Cregg recommends swamp white oak (*Quercus bicolor*), which is right up there in the “tough-as-nails” department. Cregg notes when New York City’s 911 Memorial at the site of the former World Trade Center was planted, swamp white oaks were chosen because “failure was not

an option.” It tolerates dry and wet soils, as well as the salt and compaction that come with city living.

Another top choice is tulip poplar (*Liriodendron tulipifera*), which Cregg used in a street planting for Greening of Detroit ([www.greeningofdetroit.com](http://www.greeningofdetroit.com)), installing Emerald City tulip poplars (*L.t.* 'JFS-Oz'). “We planted them literally with a pickaxe,” he said. “They really took off and did fantastic.”

Other ash alternatives Cregg suggests are bald cypress (*Taxodium distichum*) and dawn redwood (*Metasequoia glyptostroboides*).

Cregg noted that while you might think of drought-tolerant >>



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Jefferson elm (*Ulmus americana* 'Jefferson') has excellent resistance to Dutch elm disease, making it a strong alternative to other selections. It is still advisable to prune and spray it regularly.

PHOTO COURTESY OF J. FRANK SCHMIDT & SON CO.



Emerald Avenue® hornbeam (*Carpinus betulus* 'JFS-KW1CB' PP 22814) is a great ash alternative. It is more tolerant of heat and drought than other hornbeams, and has darker, lusher leaves to boot.

PHOTO COURTESY OF J. FRANK SCHMIDT & SON CO.

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## The replacements

species first for urban sites, studies have shown that bottomland trees adapted to poor aeration make the best street trees, and that if trees can't withstand compaction and poor aeration, they won't survive drought.

Although there are no borer-proof elms, Nancy Buley of **J. Frank Schmidt & Son** recommends the new Summer Elixir® elm (*Ulmus chenmoui* 'JAB Morton'). Alternative choices include Emerald Avenue® Hornbeam (*Carpinus betulus* 'JFS-KW1CB' PP22814); 'Wichita' and 'White Shield', two fruitless and thornless selections of native Osage Orange (*Maclura pomifera*); and several native Kentucky Coffee Trees (*Gymnocladus dioicus*) she recommends for urban and landscape use.

### Finding the weak links

As both a Bartlett Consulting arborist and co-owner of **Urban Forest Nursery**, in Mount Vernon, Washington, Jim Barborinas sees all the vectors affecting trees first-hand. After seeing so many fast-growing trees like red maples, pears and plane trees planted only to develop issues, he began seeking alternatives.

"Just about the time they were developing a beneficial canopy, they began pushing up sidewalks," he said.

Barborinas looked for disease and insect resistance, good structure, branch flexibility, nice fall color and/or seasonal flowering in a perhaps slower-growing package. "What I started to move towards were cultivars of *Carpinus carolinia*, *Parrotia*, *Nyssa sylvatica*, finding better ginkgos and finding out how to grow them faster."

One of the biggest factors he notes in ultimate performance is the soil. If a tree is failing without a known pest cause, he looks there first to confirm the tree has sufficient depth, drainage, and volume of soil.

"If the soils are not good, I don't care what you put in, it's not going to thrive," Barborinas said. "We've had some great examples of putting in replacement >>>

Like Jefferson elm, Accolade® Japanese elm (*Ulmus davidiana* var *japonica* 'Morton') has strong resistance to Dutch elm disease.

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## The replacements

trees and very quickly the replacement is outperforming other trees that have been in the ground 20 years.”

“We try to grow trees that are near bulletproof,” Barborinas said.

Another critical benefit in selecting trees is the option to support a stronger ecosystem and environment with every planting.

“Trees are crucial for lots of different reasons, but they are also crucial for the wildlife on the planet,” said Nicholas Staddon, a spokesman for large grower **Everde Growers**, which is based in Texas and has farms in California, Oregon and other states.

One might choose a tree based on the number of caterpillars it supports. Ecologist Douglas Tallamy consulted with the National Wildlife Federation to create a search tool [www.nwf.org/nativeplantfinder/about](http://www.nwf.org/nativeplantfinder/about).

Our native species are a rich resource, said Staddon. “I think there are enormous opportunities within our indigenous tree group in America to step back and look at those trees that are proven longtime performers. They may not necessarily have all the bells and whistles of new varieties, but they are good disease-resistant well-behaved plants.”

Redbud (*Cercis spp.*), hackberries (*Celtis spp.*), and golden rain-tree (*Koelreuteria paniculata*) are some native trees for which he sees potential for greater use in the landscape. Redbuds have a great diversity of form, flower and leaf, and grow across the U.S., he has seen hackberries take a lot of abuse in urban plantings, and golden rain-tree shrug off stretches of 118-degree weather in Bakersfield, California.

Barborinas sees a significant demand for Garry oak (*Quercus garryana*), for instance, because of the increased interest in pollinator support and native plants.

A beloved native plant with issues is our native dogwood (*Cornus florida*). Because it falls prey to anthracnose, he recommends crosses like ‘Eddie’s White Wonder’ and ‘Starlight’. Sometimes, he notes, governments will accept those as

Armstrong Gold® maple (*Acer rubrum* ‘JFS-KW78’ PP 25301), Crimson Sunset maple (*Acer truncatum* × *Acer platanoides* ‘JFS-KW202’ PP 21838) and Wichita osage orange (*Maclura pomifera* ‘Wichita’) are all survivors of tough conditions, and good for diversifying the urban forest.

PHOTO COURTESY OF J. FRANK SCHMIDT & SON CO.

“native”-approved because of their heritage and resistance.

### Diversity is stability

Ecologists call it the portfolio effect — the idea that as diversity rises in a plant community, stability does too, thanks to the greater average of variable inputs. The experts agreed that diversity is our strongest weapon against the fluctuations of climate, insect and disease stresses.

“The theme of all this is risk and uncertainty, and really your only hedge is diversity,” said Cregg.

“We need safeguards to prevent wholesale destruction, and diversity is the way to do that,” said Scott Altenhoff, manager of the Oregon Department of Forestry, in Salem’s urban and community forestry assistance program.

“More than just species diversity there is intraspecific diversity,” he said. “You might have a species of tree from different elevations, aspects or latitudes that has a different genetic response towards a part pest or pathogen.”

Not to mention size diversity. Because older trees become more susceptible with age, it’s important to include youthful specimens in any given planting, he said.

Appreciating the benefits of getting trees to market (and planted) quickly, he said “hopefully we can strike a balance bet high production methods and safeguarding diversity.”

In addition to seeking diversity in the main varieties, it’s important to diversify grafting material too, he said. “We’ve come a long way — some of the commercial growers have 5–10 times the diversity they had 20–30 years ago.”

“We have long embraced the principle that diversity of species is the best weapon against invasive pests and diseases, and have been, for 40 years, striving to offer a broad range of genus and species,” says Buley. “Our initial effort was spurred by the lessons learned from the earlier devastation of American Elms by Dutch elm disease. Back in 1982, we offered 109 species and cultivars derived from 19 genera. *Acer*, *Betula*, *Fraxinus*, *Malus* >>



Exclamation!™ planetree (*Platanus x acerifolia* 'Morton Circle') tolerates alkaline soil, clay soil, road salt, and dry or wet conditions. It's beautiful three-lobed leaves make it a looker, as well.

PHOTO COURTESY OF J. FRANK SCHMIDT & SON CO.



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## The replacements

and *Prunus* were big sellers. Our 1982-83 catalog lists just four oak species, one dogwood and no elms. Forty years later, our 2023 catalog presents 450 species and cultivars derived from 64 genera.”

It’s a challenge that needs addressing in all aspects of the industry, from growers and designers to scientists, academics, policymakers, customers and homeowners.

“These are no doubt wickedly complex problems,” Altenhoff said. “There are so many feedback loops that a single solution doesn’t exist. We are going to have to rely on a whole host of endeavors. It’s going to take all hands on deck.”

For example, Barborinas says about consulting on a large-scale landscape design, “If we see 40-50-60 of the same tree, we say ‘Why don’t you plant three varieties?’”

“We can’t rely or expect the commercial sector to bear this burden,” said Altenhoff. “The private sector is the engine driving what we do but academic and extensions can play a role and the government and some municipalities need to recognize their role to help incentivize and highlight best management practices.”

Pertaining to a given planting, it’s very crucial everyone thinks in a broad sense, whether it’s a home owner or commercial landscaper,” said Staddon.

“We need to really be challenging ourselves as to the best plant for that application.” If we work together, he said, “we should be able to come up with a beautiful, resilient landscape.” ☺

*Erica Browne Grivas is an award-winning journalist and gardener pushing some boundaries in Seattle, Washington. She can be reached at EBGrivas@Gmail.com.*



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Tyler Kuenzi of Kuenzi Turf and Nursery with a RediRoot air prune pot. This fourth-year hickory plant will be moved to a fabric bag in the fall.

# The problem of the root

Growers, suppliers discourage tap roots and circling with pruning pots and grow bags

BY MITCH LIES

**W**HEN MYRON KUENZI STARTED in the liner business 18 years ago, one of his first steps was to visit grower fields in the Midwest. What he saw was discouraging.

“I walked rows with growers,” said the owner of **Kuenzi Turf and Nursery**, a grower based in Salem, Oregon. “The first products they took me to were their oak trees, and I don’t think they even had 5 percent of their bur oak living. It was that horrible.”

The experience motivated Kuenzi to find a better way to prepare trees for growers. From his perspective, it all came down to the roots.


Today, Kuenzi grows several species of trees in air root prune pots, which are later planted in fabric bags. All of this promotes a fibrous root system devoid of taproots or circling roots. The system brings several benefits, including reduced transplant shock in the fall when transplanting into the bags.

“This means that the leaves remain on the tree four to six weeks, which allows the tree to store carbohydrates,” Kuenzi said. “And with this better carbohydrate storage, plants perform better the following spring, and have better survivability. That results in larger grades than if a tree is started in a solid-wall pot.”

The company uses this process for hickory, oak and other tree species that are prone to setting taproots or are hard to transplant as bare root. The small openings in the sides and bottoms of the pots ‘air prune’ roots that are otherwise prone to circling. And the small openings in the bottom of the pot promote root mass while discouraging a tree from setting a taproot.

Kuenzi said growers have told him they can cut in half the time it takes to get an oak tree ready for market when growing a tree from his operation.

“I’ve had some customers tell us that instead of taking two to three years to selectively harvest trees that make caliper, they can almost clean a field in the first harvest year,” Kuenzi said. “It takes work on their part. They’ve got to plant it right and get water on it. But it can be done. And it’s not only that: Our oaks have a 99 percent survival rate in the field.”

The concept behind developing a fibrous root mass as opposed to a taproot is the same concept used in promoting lateral tree growth, Kuenzi said. Instead of cutting out the top of a tree to remove the apical hormone so that lateral branching can form, with roots, it involves pruning, then callousing the taproot or apical root leader to promote new root growth. The air root prune pot prunes the apical leader in the root so it can produce lateral root branching. 

## The problem of the root

### Diversity is stability

The air prune pots Kuenzi prefers, **RediRoot**, were developed in the early 2000s by company owner and founder Tom Springer. According to Chris Murphey of RediRoot, Springer developed the pot after a discussion with an executive at J. Frank Schmidt & Son Co.

“Tom was sitting in a meeting with Gary Furr (former chief operating officer of J. Frank Schmidt) and the comment came up that they just couldn’t seem to find a pot that suited their needs,” Murphey said. “So, Tom said, ‘What kind of pot do you want?’ And Gary gave him a little sketch drawing and Tom said, ‘Well, let me see what I can do.’ And that is really where we got our start.

“Tom was adept at creating new products,” Murphey added. “His wasn’t a big company at the time. He didn’t have big distribution. He just listened to what people needed and was really good at getting new things made.”

RediRoot today sells several sizes of air root prune pots as well as fabric bags to customers across the U.S. Key to their products, Murphey said, is that they encourage fibrous root growth.

“Roots cannot circle in our pots,” Murphey said. “They are air pruned off. They are redirected, but they don’t circle, so you don’t have any strangulation of the tree later on in life as nobody is ever cutting circling roots or disturbing them in any way.”

### Fabric bags

When Kuenzi Turf and Nursery is ready to move an oak or a hickory tree from the greenhouse to the field, the company eases a tree out of an air root prune pot and places its roots in a fabric bag.

Jim Averna, founder of **Root Pouch**, a Hillsboro, Oregon company that manufactures fabric bags from recycled water bottles, said bags have several advantages over pots.

“Where Root Pouch really excels over

plastic containers is it allows a lot of air to come into the root structure and the roots of a plant are more prone to grow laterally,” Averna said. “They grow to the sides of the bag. They aren’t spending all of their time at the bottom third of the pot like they can do in plastic. They are spending their time going to the side, looking for either oxygen, if it is above ground, or water if it is in the ground.

“When our bags are used for in-ground growing, for instance, they have a great advantage over other products because they contain natural fibers, which is an exclusive of Root Pouch,” Averna added. “The natural fiber will actually suck the water towards it from the surrounding soil, which tells the tree to send its roots laterally to get that water. There is no need for the taproot to go straight down looking for water because it’s com-

**“Roots cannot circle in our pots, they are air pruned off. They are redirected, but they don’t circle, so you don’t have any strangulation of the tree later on in life as nobody is ever cutting circling roots or disturbing them in any way.”**

— Chris Murphey, RediRoot

ing in from all directions.”

Tyler Kuenzi, general manager of Kuenzi Turf and Nursery, which uses root control bags from **High Caliper Growing**, said he likes to see hair roots coming out of bags when looking at harvested trees. “That means that they’re not circling, and the bag is doing its job by trapping some of the small roots,” he said.

“Another benefit to the bags is that we can selectively harvest larger grades a year prior to row digging the rest,” Tyler Kuenzi said. “It’s not like bare root, where you have to harvest a whole row when some of the trees might not be ready.

In a bag, you can pick and choose

individual plants.”

And, Kuenzi noted, transplant shock is dramatically limited for customers who plant trees with fabric bags into their fields. “And later, when growers move a tree into the retail sector, they perform better because the spade-dug trees have more root mass within the root ball.”

“When you harvest a tree in a bag,” Averna pointed out, “you’re not hacking off two-thirds of the root structure to get the trees out of the ground. You bring them up in a Root Pouch and it’s a container coming out of the ground. You can set it right on the ground from that point on. And then when it goes to the next customer, it can sit there until they get to it, as long as they give it water and care for it. There is no burlap that is degrading it with the UV rays and making it hard to water.”

“And when they’re shipping it, they stack really nicely because they form to each other and there are no sharp edges to rub into the trunk of the other tree,” said Ashley Fromm, vice president and co-owner of Root Pouch.

### Extra costs

Producing seedlings in air root prune pots does have some extra expense, Tyler Kuenzi said. For instance, Kuenzi Turf and Nursery can only fit about half as many trees in air prune pots in a greenhouse than if they were using solid-walled pots.

“It takes about double the space in our greenhouses for these air root prune pots, because you’ve got to have air around each pot,” Kuenzi said. And, he said, fabric bags in and of themselves are an added cost, as well as the additional labor to plant trees in the bags.

Also, according to Chris Murphey of RediRoot, a plant in a RediRoot pot can require more water than a plant in a standard solid-wall plastic pot, a fact that has proven to be an impediment to bringing the air prune pot to the retail sector.





Kuenzi Turf and Nursery uses RediRoot air root prune pots on hickory, oak and other trees prone to setting a taproot. The small openings in the bottoms of the pots prevent taproot development through air pruning, promoting a more fibrous root growth.

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## The problem of the root

“Our product does require more water,” Murphey said. “If you just drop our product in the middle of a big garden center and they don’t necessarily acknowledge the difference, our product may get underwatered.”

(That is not the case with the Root Pouch bags, Fromm pointed out. “The Root Pouch retains water and actually requires less water than a hard-walled pot because it doesn’t immediately evaporate,” Fromm said.)

And, while trees emerging from air prune pots typically will need less time in the soil than trees started in solid-wall pots, Tyler Kuenzi noted that their system can require a plant to stay longer in the greenhouse, particularly if they are working to train a taproot or needing to build better roots.

The payback, however, more than makes up for the extra costs, he said.

Kuenzi pointed out that he has had customers leave the company for a lower cost supplier only to come back a year or two later. “Just by having a better root to start with provides our customers with better roots when they receive our trees,” he said. “We have a better plant coming out the other end and our customers keep coming back because of that.” ☺

*Mitch Lies is a freelance writer covering agricultural issues based in Salem Oregon. He can be reached at [mitchlies@comcast.net](mailto:mitchlies@comcast.net).*

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4)Assist with supervising scheduling daily and weekly.
5)Must be self-motivated or to work with a group.
6)Possesses strong communication skills, interpersonal skills, person of good character.
7)Computer knowledge, abilities, and bilingual (English/Spanish) language desired.
8)Strong work ethic, positive attitude.
9)Valid driver's license.
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Experience: Three to five years managerial experience at a horticulture business. Overall seven to ten years related experience or equivalent combination of education and experience required. Demonstrated progression in management of horticulture company preferred.

Computer Skills: Experience with Microsoft Office preferred. Able to manage company website and internet applications. We use Sage 100 for our accounting, inventory, and sales.

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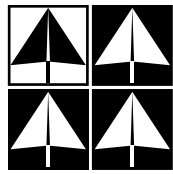
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# GROWING KNOWLEDGE

Series content is coordinated by Dr. Jay Pscheidt, professor of botany and plant pathology at Oregon State University in Corvallis, Oregon.



An ongoing series provided by Oregon State University in collaboration with the United States Department of Agriculture and in partnership with the Oregon Association of Nurseries



## The genetic revolution comes home

OSU Plant Clinic seeks new applications for whole genome sequencing

BY MELODIE PUTNAM

**C**HANGE IS INEVITABLE. Although the world may look more or less the same, you are not living in the one that existed when you were born.

We are in the midst of an ongoing genetic revolution that has radically changed our understanding of nearly every biological process. You have probably heard of the use of genetic engineering to create crop plants resistant to certain types of herbicides. You may also know that marker genes have been used to help plant breeders identify useful traits to speed up development of new lines of material.

However, our knowledge of genetics has deepened and expanded substantially beyond these two concepts in the last 20 years. For example, it is now possible to insert a novel gene with

no functional purpose into a proprietary plant line to curtail illegal propagation. If the characters of a plant look too similar to one developed by a breeding company, that company can test their rival's material for the presence of the inserted gene. If present, they have evidence their competitor unlawfully reproduced their genetics.

This is one simple, but powerful, example of how knowledge of genetic information within an organism can be used for specific purposes.

### The power of modern genetic tools

My colleagues and I in the Department of Botany and Plant Pathology at Oregon State University have been investigating



## The genetic revolution comes home

how to best use the power of modern genetic tools to help growers, specifically in the realm of disease detection, pathogen transmission, and disease management. Bacteria contain relatively little genetic information, compared with fungi and other more complex organisms, so we have been using bacteria as a model system for method development and to mine the genomes for useful information.

Let me back up here a minute.

A genome is all the genetic material that exists within an organism. Bacteria usually have one chromosome (humans have 23 pairs of chromosomes), consisting of a long string of chemical structures called bases. There are four bases that are key portions of the nucleotides that comprise the DNA molecule (Figure 1). The genetic information contained in DNA allows the organism to grow, reproduce, and carry out all functions

needed for life.

The method called whole genome sequencing allows researchers to “read” the building blocks of DNA, its bases, in the order in which they occur. It is somewhat like fingerprinting an organism, only much more precise and informative. Analysis of whole genome sequences of the Covid-19 virus allowed scientists to track the different variants as they moved through a population in real time, not retroactively.

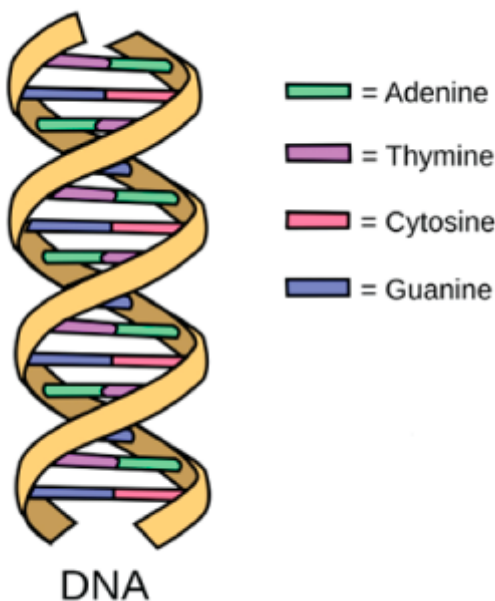
Tracking newly formed lineages is possible because, as DNA replicates, small errors or changes in base order will occur, resulting in genetically distinct variants within a species over time. Bacteria, in addition to the chromosome, often have genes in structures called plasmids. These plasmids may be transferred to other bacteria of the same genus, or less frequently, to bacteria of a closely related genus. Plasmids often

contain genes that govern the ability to cause disease, and hence are important drivers in the evolution of bacteria (Figure 2).

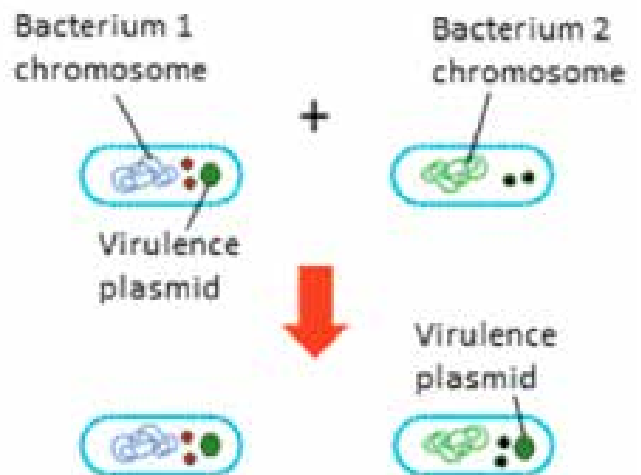
Plasmid DNA, aside from being shared among bacteria, may also show genetic drift through errors in replication.

It is by comparing these small changes in DNA composition, either in the chromosome or a plasmid, that one can determine how long ago variants arose. The greater the number of changes, the more distantly related two organisms are predicted to be.

These minor changes allow tracking of unique strains within a species from one place to another. And since bacteria have regeneration times of hours, distinct genetic changes can appear relatively quickly. They can happen in years instead of hundreds of years.



**Fig. 1.** A simplified diagram of a portion of a DNA molecule comprised of four nucleotides, containing, along with a sugar and phosphate molecule (not shown), the nucleobases adenine, thymine, cytosine, and guanine. The nucleotides are the “rungs” of the ladder.



**Fig. 2.** A donor cell, Bacterium 1, contains a virulence plasmid and two smaller accessory plasmids. The virulence plasmid contains genes that allow the bacterium to infect plants. Bacterium 2 lacks the virulence plasmid and does not cause disease; it also contains two smaller plasmids. When the two bacteria are in physical contact, they fuse and Bacterium 1 donates a copy of its virulence plasmid to Bacterium 2, which can now infect plants and cause disease. This is one way new lineage of bacteria can rapidly develop.

## The next steps with genome sequencing

Significant and rapid improvements in sequencing technology since the first genomes were “read” has placed whole genome sequencing within reach of individual researchers.

To take advantage of this, the OSU Plant Clinic — with funding from a Nursery Research grant from the Oregon Department of Agriculture and the Oregon Association of Nurseries — purchased a DNA sequencer capable of “reading” the order of bases in DNA from a bacterial cell, which could then be organized into a whole genome.

My colleagues — Drs. Jeff Chang, Nik Grünwald, Alexandra Weisberg, and their students and post-doctoral scholars — have been helping me to delve into the genomes of multiple bacterial species to learn about their evolution and movement over time. One of our projects involved the bacterial pathogen *Rhodococcus fascians*, which causes leafy gall disease of plants (Figure 3).

Not all *Rhodococcus fascians* isolates can cause disease. In *R. fascians*, the virulence genes that enable the bacterium to infect a plant are carried on a plasmid, which may not be present in some members of the species. However, the plasmid can be transferred to harmless *R. fascians* cells, which then have the ability to cause disease.

Leafy gall disease is of particular concern in ornamentals nurseries, because there is no control or cure available. I was interested in the problem that some nurseries were having with recurring disease. Did these nurseries just need a better sanitation program? Or were they reintroducing the bacteria with plants they were bringing on site?

We tackled this question by analyzing the whole genome sequences of nearly 100 isolates of *R. fascians*, most of which were collected from nursery samples. We gained some valuable insights into the biology of the bacteria, and discovered an interesting story.

We had in our collection many isolates of *R. fascians* recovered from different species of plants from multiple nurseries over 15 years. When we analyzed the genetics of these bacteria, we found that one nursery had eight different genetic lineages of



**Fig. 3.** Pathogenic isolates of *Rhodococcus fascians* cause growth abnormalities called leafy galls, shown here on a *Lavatera*. The multiple buds produce stunted leaves that do not grow to full size.

*R. fascians*. A second nursery had six different genetically distinct variants, suggesting that both nurseries had obtained the pathogen multiple times, probably from different sources.

We found other instances where multiple nurseries, located in different states, had bacterial isolates that were essentially genetically identical, suggesting that infected plants had been shipped to the nurseries. This can happen with *R. fascians* because symptoms may not be recognized or even visible at time of shipping.

The point of this work was not to place blame on particular nurseries for distributing infected material, but to get a better handle on sources of the bacteria to allow improved management strategies. The nursery with the chronic bacterial reservoir has adopted much more stringent sanitation, scouting, and testing measures to try to exclude the pathogen. The managers are much more aware of the extent of the problem and are acting accordingly.

## Tracking how diseases spread

In the examples given above, we used the genetic similarity and difference between isolates to make inferences on pathogen movement. We assumed it was unlikely that the same genetic background would show up in different nurseries unless the nurseries had

purchased plants from the same source.

But is that a valid assumption? Or is it wishful thinking? We decided to use a recent outbreak of *Xanthomonas hortorum* pv. *pelargonii*, cause of bacterial blight of geranium, to test our assumptions.

In the spring of 2022, *X. hortorum* pv. *pelargonii* was distributed on cuttings from a facility in Central America, and clients were duly notified of this event. An outbreak such as this, with a known source, was an excellent opportunity to demonstrate the ability to track a genetic trail.

We obtained 35 bacterial isolates from plants sent to diagnostic laboratories in Maryland, Indiana, and New York, including some isolates from previous outbreaks, and analyzed their whole genome sequences. We found that all of the geranium isolates from the 2022 outbreak were essentially clonal, which is what you would expect from material that originated from a single source. The bacterial isolates from previous outbreaks had accumulated multiple changes in their genetic code, and were only distantly related to the bacteria in the 2022 incident.

We also found evidence, in one nursery, of disease spread from the plants originating from Central America to plants obtained from a different breeder. Both sets of plants were growing in the same greenhouse.

This test case, using a known



## The genetic revolution comes home

outbreak from a single source, verified our assumptions regarding the use of whole genome sequencing for tracking the movement of bacterial isolates over time and space.

Currently, I am collecting isolates of the crown gall bacterium, *Agrobacterium*, from blueberry, raspberry, and grape grown in western states to determine whether there are similarities between isolates from diverse sources (Figure 4).

This work is being conducted with Dr. Alexandra Weisberg and is funded by the Western Integrated Pest Management Center. The goal is to help growers identify how the pathogen is getting into their vineyards and fields.

Since the bacteria may be present on nursery plants without causing symptoms, might *Agrobacterium* be getting around this way? We also wish to learn if any new traits are developing in the bacteria over time. Another goal is to exploit the information present in the bacterial genes for insights into more effective disease management.

There are two similar biocontrol products for crown gall bacteria that, when used preventively, are very effective in shutting down the disease. However, these products only work against certain strains of *Agrobacterium* – those that have the ability to produce certain types of opines.

Opines are metabolites produced by the bacteria and are used as nutrients and for other cell functions. There are over 20 different kinds of opines that may be produced by a given *Agrobacterium* cell, and which opine is produced depends on what type of plasmid is present in the bacterium.

### Tracking how diseases spread

If the biocontrol products are only effective against those agrobacteria that contain certain opines, what about the other isolates of agrobacteria? Simple: they are not affected in the slightest, and growers using these products who have insensitive agrobacteria in their fields and vineyards are wasting money. If we have *Agrobacterium* cultures from a grower's field, orchard, or vineyard, we should be able to determine what type

of opine genes are present and whether the biocontrol products will be effective.

Ferretting out this, and other types of information, is only possible when there is a large collection of genomic resources available for analysis. To understand trends in pathogen development, we need to analyze the genes of populations of bacteria to determine the breadth of variation of types present. It isn't much help to deeply know a few individual types when there are hundreds or thousands present.

Using *Rhodococcus*, *Xanthomonas*, and *Agrobacterium* model systems, we are developing the sequencing skills and analytical pipelines that will allow us to eventually and routinely analyze all types of bacteria and, eventually, fungi. Uncovering the genetic information within the tiny pathogens will allow us to exploit their vulnerabilities to allow better informed management solutions

and understanding of how growing practices can influence pathogen evolution in real time. ☺

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*The work reported here was funded in part by the USDA National Institute of Food and Agriculture, through the Western Integrated Pest Management Center and the Specialty Crops Research Initiative. Additional support was provided by the Oregon Association of Nurseries/Oregon Department of Agriculture Nursery Research grant program.*

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*Melodie Putnam was the director of the OSU Plant Clinic for 30 years. She has recently retired, but the work described in the article continues. She may be contacted at [putnamm@oregonstate.edu](mailto:putnamm@oregonstate.edu).*



**Fig. 4.** *Agrobacterium* is a genus of bacteria that can cause the disease known as crown gall, shown here as the swollen tissue at the graft union of these grape plants.



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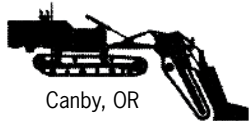
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# We exist to serve members

It is easy to get disconnected from your trade association during the sprint of shipping, not to mention dealing with weather and labor challenges.

However, we all know the great unseen threats that loom over the industry, starting with state and federal regulations. Your volunteer leaders on the OAN Board of Directors and Government Relations Committee serve as your voice and your defense. They are really good at what they do.

Make no mistake about it. As your executive director I understand that your involvement and financial support are not compulsory. You choose whether to invest in your association. When you do, you get our all in return.

As staff and volunteer leaders engaged in the association will tell you, I never stop. My wife would agree. Odd hour phone calls with agency and elected officials, or a member in need, are always answered. When business-altering issues confront the nursery and greenhouse industry, the clock is often ticking. Time is finite.

I wanted to give you a look under the hood of the OAN, so you can understand why we work for you, as well as the what and the how.

## The golden circle

“Start with Why” is leadership expert Simon Sinek’s first and most popular book. It demonstrates that leaders and organizations are successful when they start with a basic question: “Why?”

Everything else flows from that. Features and programs are relevant only to the degree they answer that question.

The Simon Sinek golden circle theory is illustrated as three concentric circles with “why” in the center, followed by “how,” and finally, “what.” According to Sinek, most organizations and individuals only focus on the “what” and “how” of their actions. There are very few people who think about the “why.”

I am proud that your association thinks first about why we are here. Our reason for being is still reflected in the OAN’s mission statement: “The OAN is the community dedicated to the long-term success, profitability and excellence of Oregon’s nursery and greenhouse industry.”

That is pretty simple – we exist to promote, protect to enable all members, both small and large, to do what you do so well, which is to grow, sell and ship green goods around the country and globe.

“Why” matters only when you do something with it. Our what is found in our four-pronged vision statement:

1. Plant buyers have an enduring preference for Oregon product.
2. Government leaders depend on the OAN’s input in making policy decisions.
3. Our members adopt practices that lead to their long-term success.
4. Government and the public understand the contribution of Oregon plants toward the well-being of our communities and the environment.

I find it remarkable that after all these years, the mission and vision remain just as true today as when they were adopted by the membership.

## 2024 is a big year

I am a big believer of the axiom that my former boss, U.S. Sen. Bob Packwood (R-Oregon), would say: Know where you want to go, then build the road to get there. I have carried this mantra through my entire career.

Our community will be recognized with a new class of inductees for the OAN Hall of Fame, and we will continue the evolution of chapters through segments, manager and HR professional gatherings and promoting our new NextGen leaders.

We will be taking the next step with **Nursery Guide** and adding features to increase our online traffic from almost 700,000 visits to close to a million. The OAN was the first online connection to link customers to your website and I am excited for what is ahead.

Labor is a continual problem and the OAN will be working with masLabor to bring H-2A worker visa expertise to your front door. OAN’s five-point plan on immigration will be a big focus on the federal level.

Our advocacy program is elite, offering member advocacy training as well as legislative tours of nursery member operations. Our volunteer leaders are exceptional advocates for the industry, and we’re laying the groundwork for a big push in the 2024 Oregon State Legislature.



Jeff Stone  
OAN EXECUTIVE DIRECTOR

## Impact is our bottom line

It drives me nuts when I hear about the difference in perspective between for-profit organizations and non-profit organizations. Both have services they provide, but while one focuses on profit margin and market share, the non-profit organization focuses on its mission and the people it serves.

The OAN operates on a budget like any other run-of-the-mill business, but our focus is different. We measure success just as any for-profit organization does, but your success is our measuring stick.

Yes, technically, we are a non-profit, but that’s a tax term. It leaves some things out. We view ourselves as an impact organization. We deliver action to drive outcomes of member success. Everything we do is viewed through a single prism — does this help the membership?

I fully recognize that the technology to seek solutions can be found on YouTube and on Google. However, the OAN represents the human connection, and the conversations that happen in between our jobs and our community. Our sole purpose is making sure the industry is here for the next generation.

As an association, I am proud of the team that has been assembled to serve you each day. They are the best of the best. However, treading water is not swimming ahead. We must continue to refine why we are here, evaluate what needs to be done, and ensure that the actions we take truly drive our most vital cause, making each member successful.

We have bolstered our operations and renewed our commitment to our higher calling, which to protect and defend this industry that we respect and admire. ☺

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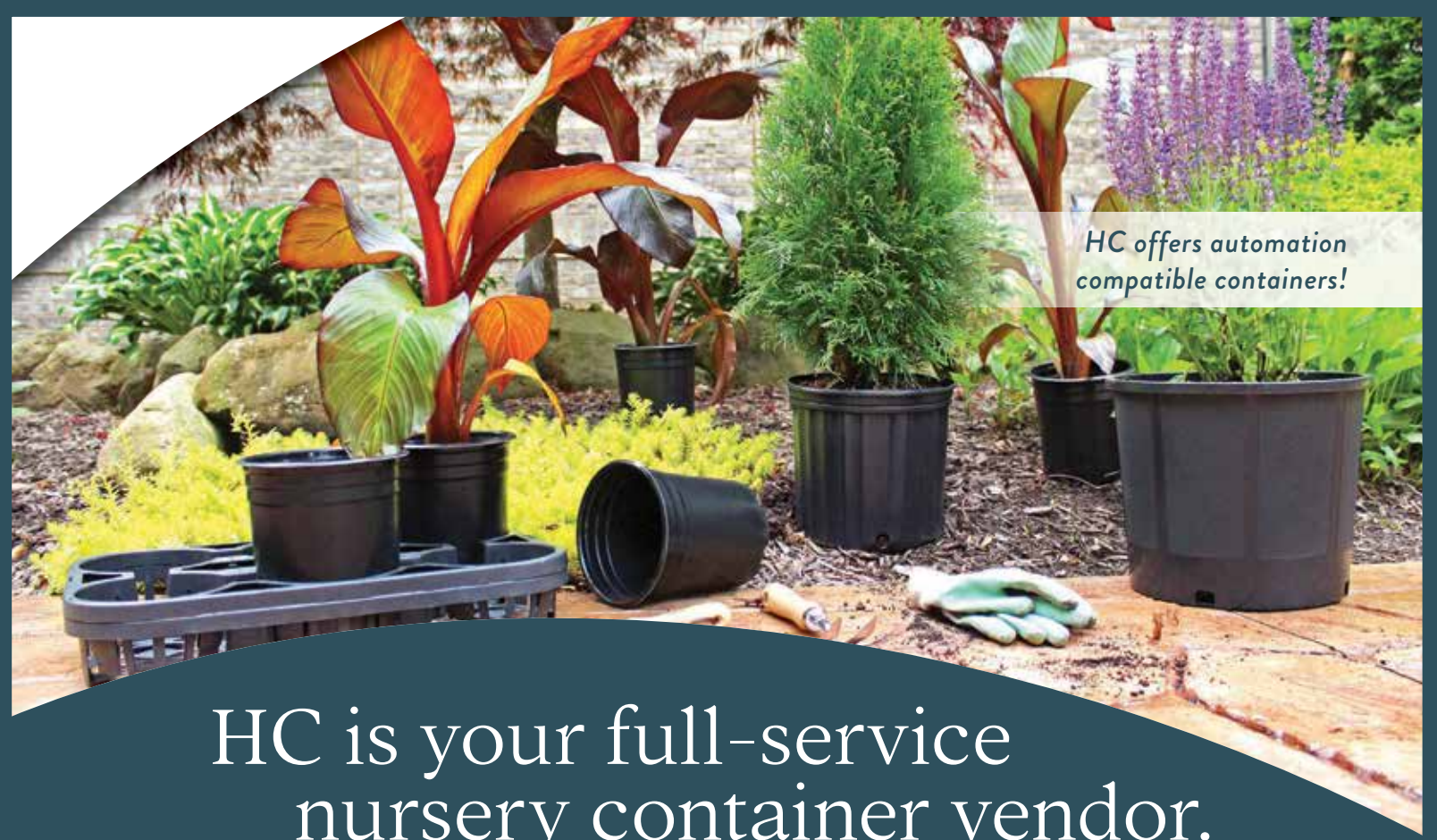


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