

Harrell'sProtectMAX*

MAXIMUM PROTECTION

Against Environmental Stress



BROAD-SPECTRUM ACTIVITY



MULTIPLE MODES OF ACTION



CONTACT AND SYSTEMIC ACTIVITY



Always read and follow label instructions. Not all products are

registered in all states.

Azoxy Chlorothalonil Fluazinam Propiconazole Quinclorac T-Methyl Tebuconazole Title Phyte® Systemic Fungicide

NEW Fluoxastrobin SC NEW Cyazo NEW Mancozeb

VIEW THE CATALOG (4)



ProtectIMA:



REACH OUT TO YOUR HARRELL'S REP

Scott Renfro | srenfro@harrells.com | 206-617-3950





Meet The Future

FARWEST

PORTLAND 2024

Amanda & Wayne Staehely
Columbia Nursery LLC
Farwest Exhibitor

Jim & Jerry Simnitt Simnitt Nursery Farwest Exhibitor

EXCELLENCE

Meet us at the biggest Green Industry trade show in the West.

August 21-23, 2024

Farwest is where the nursery industry moves forward. Meet the experts, discover innovative ideas, products, and services to grow your business, and see the industry's most stunning plants. Do it all at Farwest!

Get Your Booth Today!

www.FarwestShow.com

July 2024 Vol. 68 No. 7





21 Wild about birds and bees

Nurseries respond to interest in wildlife-friendly gardens with new varieties.

17 Going underground

Subsurface drip irrigation tape is proving to be a water and energy-saving option.

33 City dwellers

OSU Plant Breeding Program developing cultivars for tougher urban landscapes.

FARWEST

PORTLAND 2022

Highlights of seminarsAfter 20 New VarietiesShowcase



COLUMNS

- 7 President's Message
- 38 Director's Desk

DEPARTMENTS

- 8 Calendar
- 10 Northwest News
- 29 Classifieds
- **33** Growing Knowledge
- **37** Digger Marketplace



On the cover: First Editions Fiber Optics® Buttonbush (Cephalanthus occidentalis 'BAILOPTICS' PP29475) is a compact selection of the native buttonbush, with tremendous wildlife benefits including nectar-filled flowers and a seed head that is eaten by waterfowl. PHOTO COURTESY FIRST EDITIONS® COURTESY FIRST EDITIONS®

On this page: Left: Native snowberries fruit in November and provide food going into winter for birds. Photo Courtesy Oregon Flora Right: Subsurface drip irrigation involves applying low volumes of water at low pressure through drip tape buried near plant roots. The system saves water and saves energy. Photo Courtesy Rivulis



Meet The Future

FARWEST

PORTLAND 2024



Farwest Tours
Tuesday, August 20, 2024

Farwest Show & Seminars
Wednesday-Friday,
August 21-23, 2024

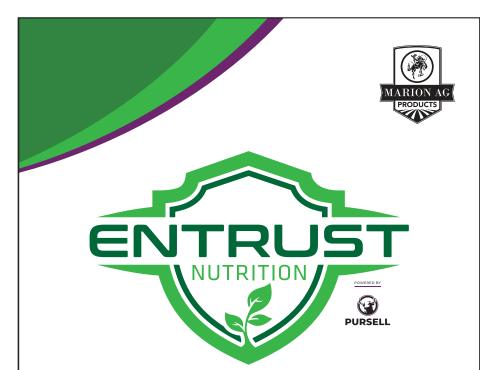
Early Bird Registration Discount Ends
July 31, 2024 • FarwestShow.com



Hotel Registration is open!

Stay at an official Farwest host hotel and save!

FarwestShow.com/Hotel



TRUST THE

People30 years of controlled released fertilizer experience.

ProductThe highest levels of safety and predictability.

PurpleBacked by industry leading Pursell Agri-Tech.

PROCESS





29751 S.W. Town Center Loop West Wilsonville, OR 97070

PH 503-682-5089 PORTLAND PH 888-283-7219 NATIONWIDE FAX 503-682-5099 MAIN OFFICE FAX 503-682-5727 PUBLICATIONS info@oan.org **EMAIL** www.oan.org OAN WEBSITE www.diggermagazine.com DIGGER WEBSITE

STAFF

Jeff Stone JStone@OAN.org EXECUTIVE DIRECTOR 503-582-2003 **Tess Chapman** TChapman@OAN.org MARKETING COORDINATOR 503-582-2004

SCollins@OAN.org Stephanie Collins DIRECTOR OF FINANCE 503-582-2001 & ADMINISTRATION

Beth Farmer BFarmer@OAN.org DIRECTOR OF MARKETING & 503-582-2013 MEMBER SERVICES

Curt Kipp CKipp@OAN.org DIRECTOR OF COMMUNICATIONS
& PUBLICATIONS 503-582-2008 Tana Klum TKlum@OAN.org

OFFICE COORDINATOR 503-582-2012 Jamie Moore JMoore@OAN.org EVENTS AND EDUCATION 503-582-2010 COORDINATOR

Allan Niemi ANiemi@OAN.org DIRECTOR OF EVENTS 503-582-2005 Vic Panichkul VPanichkul@OAN.org PUBLICATIONS MANAGER 503-582-2009

DIGGER

Curt Kipp CKipp@OAN.org 503-582-2008 EDITOR & DISPLAY ADVERTISING Vic Panichkul VPanichkul@OAN.org 503-582-2009

MANAGING EDITOR & ART DIRECTOR TChapman@OAN.org **Tess Chapman**

E-DIGGER PRODUCER Dr. Lloyd Nackley Lloyd.Nackley@OregonState.edu GROWING KNOWLEDGE

Oregon State University

SERIES COORDINATOR Jon Bell, Mike Darcy, CONTRIBUTING WRITERS Erica Browne Grivas

Mitch Lies, Emily Lindblom, Kym Pokorny. **Debbie Teashon**

Copyright © 2024 by the Oregon Association of Nurseries (OAN). Digger magazine is an official publication and a member service of the Oregon Association of Nurseries, 29751 S.W. Town Center Loop W., Wilsonville, OR 97070.

REPRINTS AND SUBMISSIONS Digger allows reprinting of material with written permission; requests should be directed to the editor. We are not responsible for unsolicited freelance manuscripts and photographs. Contact the editor for contribution information.

SUBSCRIPTION AND CHANGE OF ADDRESS Circulation is controlled. Domestic subscriptions are complimentary to qualified U.S. nursery industry members. Non-qualified U.S. subscriptions are \$42. Qualified foreign subscriptions are \$35 to Canada; \$45 to Mexico; and \$80 for all other countries. Single copy rate is \$6 while supplies last. Notify OAN Publications of change of address. Please allow 3-4 weeks

Postmaster: Change of address correction requested to above address.

ADVERTISING Contact OAN Publications at ads@oan.org for display and classified advertising rates. Deadlines are the 1st of the month

2023-2024 EXECUTIVE COMMITTEE

Amanda Staehely PRESIDENT Columbia Nursery 29490 S, Jackson Road Canby, OR 97013 Wayne@Columbia-Nursery.com 503-263-2623

Todd Nelson PAST-PRESIDENT Bountiful Farms Nursery Inc. 17280 Boones Ferry Rd. N.E. Woodburn, OR 97071 Info@BountifulFarms.com 503-981-7494

Ben Verhoeven PRESIDENT-ELECT Peoria Gardens Inc. 32355 Peoria Rd SW Albany, OR 97321 BenV@PeoriaGardens.com 541-753-8519

Darcy Ruef VICE PRESIDENT Al's Garden & Home 1220 N. Pacific Hwy. Woodburn, OR 97071 DRuef@Als-GardenCenter.com 503-981-1245

Patrick Newton TREASURER Powell's Nursery Inc. 5054 SW Boyd Rd. Gaston, OR 97119 PowellNursery@gmail.com 503-357-0631

Jesse Nelson SECRETARY Hans Nelson & Sons Nursery Inc. 30120 S.E. Waybill Road Boring, OR 970009 JNelson@HansNelson.com 503-663-3348

Chris Robinson MEMBER-AT-LARGE Robinson Nursery Inc. PO Box 100 Amity, OR 97101 Chris@RobinsonNursery.com 877-855-8733

BOARD OF DIRECTORS

Patrick Peterson ASSOCIATE MEMBER Simplot Turf & Horticulture Patrick.Peterson@Simplot.com 541-214-5802

Adam Farley
CONTAINER GROWER

Countryside Nursery
AFarley@CountrysideNursery.com

503-678-0511

Dave Daniel

Fall Creek Farm & Nursery Inc DaveD@FallCreekNursery.com

Blake Nelson

541-937-2973

Bountiful Farms Nursery Inc.

CONTAINER GROWER

Blake@BountifulFarms.com 503-981-7494

Joe Dula FIELD / B&B GROWER Moana Nursery JoeD@MoanaNursery.com 503-266-8170

Sam Barkley FIELD / BARE ROOT GROWER J. Frank Schmidt & Son Co. SamB@JFSchmidt.com 503-663-4128

Jay Sanders FIELD / BARE ROOT GROWER KG Farms Inc. JSanders@KGFarmsInc.com 503-678-3245

Andrea Avila Aragon GREENHOUSE Smith Gardens Andrea.Avila-Aragon@ SmithGardens.com 503-678-5373

Tyler Meskers GREENHOUSE Oregon Flowers Inc. Tyler@OregonFlowers.com 503-678-2580

Gary S. English RETAIL Landsystems Nursery
Gary@LandsystemsNursery.com
541-382-7646

Helping others succeed

One of my favorite things about this association and this industry in general, is everyone's willingness to help and guide one another.

As my husband, Wayne, started Columbia Nursery, he called countless people — truly too many to mention. There was always someone to answer his questions on grafting, business planning, where to buy nursery items, or anything else regarding our new business venture.

Steve Germany was a mentor and was the first person to introduce him to propagation and a love for plants. Wayne was only in second grade when he got that banana plant, but by the time he was in eighth grade he had over 50 varieties of lilies in his back yard. He knew that growing plants was going to be in his future.

For many in this industry, this is what being apart of the association helps you with. It's special to be surrounded by like-minded people that are willing to help one another.

Not too long ago, the main space for this was at board meetings. Those would be a time to bounce ideas off one another.

One of my main goals as president this year was opening that same door of communication and mentorship with new leadership groups that have emerged as the industry has evolved. I am so excited about our leadership groups and feel like they are the perfect addition to our already thriving association.

The first one to start this year was the NexGen group, and boy, did they hit the ground running! The group is aimed at aiding people new to the industry and others hoping to expand their knowledge and career opportunities within the nursery industry.

NexGen has already had several successful social and educational events. Their officer team even went to Sherwood High School and spoke to the students there about future career possibilities in horticulture and gave a demonstration on grafting. This type of outreach is vital in expanding our pipeline of industry professionals and demonstrating the vast spectrum that our industry encompasses.

The next leadership group is just



Amanda Staehely

taking off. Human Resources Leadership Professionals is aimed at providing a space to discuss industry specific challenges and brainstorm solutions that arise around employee retention, business success in general, and other HR-related issues.

Many of you run a small business like I do, and I am the "HR" person. To keep up with all the new things in that arena, as well as my normal day-to-day nursery tasks, can be overwhelming. To have an outlet to be able to get industry-specific information regarding this will be a game changer for me.

Following soon will be a Hispanic leadership group and a grower segment group. I am very excited about both groups getting started. Both allow current (and potential) members a place to engage with one another and get involved in some capacity with our association based on their interests and capacity within the nursery industry.

It will be an incredible asset for the association, as well, to help guide the future leaders of our organization.

This has been one of my main priorities as OAN president: to make sure that the organization is responsive to the changing needs of the industry and those who work in it. And it is vital to ensure a successful OAN for future generations to come.

Please take time to look into events these leadership groups are hosting and continue the industry tradition of mentoring and helping others. I know I will, and I hope to see you there! To find out more or indicate an interest in joining one of these groups, go to OAN.org/LeadershipGroups.

amanda Jackely



Calendar

Get the word out about your event! Email details to Calendar@OAN.org by the 10th day of the month to be included in the next issue of Digger.

VARIOUS DATES

FIRST AID/CPR CLASSES AT OAN

Need a first aid/CPR certification renewal for yourself or one of your employees? The Oregon Association of Nurseries is holding sessions in English on July 18, September 18, and October 16, and sessions in Spanish on July 19, September 19, and October 17. Class times are 8 a.m.-12:30 p.m. The cost is \$60 per person. It's the same for first-time certifications as well as renewals. Certification is good for two years and includes instruction and a certification card. Classes are held at the OAN office, 29751 S.W. Town Center Loop West, Wilsonville, Oregon. Register at OAN.org/Page/CPRclass.

VARIOUS DATES

DEQ HAZARDOUS WASTE MANAGEMENT TRAINING

The Oregon Department of Environmental Quality is providing free in-person and virtual training on the basics of hazardous waste management under the Resource Conservation and Recovery Act (RCRA). In-person RCRA basics training will be in Eugene, Oregon, 9 a.m.-4 p.m., Tuesday, July 9, DEQ Eugene Office, Willamette Room, 165 E. Seventh Ave., Suite 100, Eugene. To participate: email Denise Miller at DEQWR.SolidWastePermitCoordinator@ **DEQ.Oregon.gov** or call her at 541-333-8515. Virtual RCRA Basics training via Zoom will be Wednesday, Sept. 18, 2024, 8 a.m.-noon. (Register at TinyURL.com/RCRA1) and Thursday, Oct. 24, 2024, 1-5 p.m. (Register at TinyURL.com/ DEQWaste).

JULY 13-16

CULTIVATE'24

Attend the green industry event that offers you countless opportunities to grow your business, build your network, and discover the latest industry trends. Cultivate'24 will be July 13-16 in Columbus, Ohio. Take your learning to the next level and attend Saturday workshops and experience some of the industry's best practices with in-depth production tours. To register, go to CultivateEvent.org.

JULY 18

MOUNT HOOD CHAPTER PITCH AND PUTT

Join in on the fun at Oregon Association of Nurseries Mount Hood Chapter Pitch and Putt event, Thursday, July 18, check in starts at 1:30 p.m., shotgun starts at 2 p.m. at McMenamins' Edgefield Golf Course, 2126 S.W. Halsey St., Troutdale, Oregon. Player packages for growers are \$25 and included one ball and one beverage ticket. Registered golfers may bring their own equipment or use the putter and pitching wedge provided with registration. "Happy Hockey" long drive (marshmallow provided) \$100 prize. A 50/50 raffle to benefit the chapter is also planned. Hole Sponsorships are available for allied service and supplier members. Sponsor



PHOTO COURTESY TEXAS NURSERY AND LANDSCAPING ASSOCIATION

AUGUST 14-16

NURSERY/LANDSCAPE EXPO 2024

Get the knowledge necessary to thrive in your respective green industry segment at the 2024 Nursery/Landscape Expo in San Antonio, Texas. Stau up to date on the latest trends, explore new products, and learn to effectively manage issues, and connect with the best minds and experts the industry has to offer. For more information or to register, go to NurseryLandscapeExpo.org.

acknowledgements include company logo in all email blasts, booth and sign with logo at an assigned hole, repeat sponsors have past sign(s) posted, and one player registration. Sponsorships for regular holes are \$350 each; premium holes are \$500 each. Questions? Contact Vladimir Lomen at VladimirL@JHNSY.com.

JULY 29-AUGUST 1

NATIONAL PERENNIAL PLANT SYMPOSIUM

Get ready for an incredible experience at the 2024 National Perennial Plant Symposium July 29-August 1 in Asheville. North Carolina. This event promises to be the ultimate gathering for perennial plant enthusiasts, featuring an array of exciting tours, educational sessions, and networking opportunities. Set in the vibrant heart of downtown, the symposium is carefully curated to deliver an unforgettable horticultural experience: explore inspiring botanical gardens, see the incredible work that leading companies are undertaking, and learn from top experts in the field. For information or to register, go to PerennialPlant.org/page/NationalSymposium.

FARWEST EARLY REGISTRATION AND HOTEL DISCOUNT ENDS

Don't miss your chance to attend the Farwest Show at a savings. Early-bird registration discounts and discounted convention hotel rates end July 31. Go to FarwestShow.com to register and make your hotel reservations.

AUGUST 6-7

THE GARDEN CENTER SHOW

Network with the industry's leading buyers and suppliers at The Garden Center Show for independent garden center owners and professionals, August 6-7 in Rosemont, Illinois. Participate in educational sessions and take one of the pre-event tours hosted on August 5 and visit Chicagoland's leading retailers on the Lawn & Garden Retailer Bus Tour. To register, go to GardenCenterShow.com.

AUGUST 9

NEW PRODUCTS SHOWCASE TIER 3 DEADLINE

Do you have a new and exciting product to unveil? Help your target audience find your newest product at the New Products Showcase! The deadline for Tier 3 submissions is Friday, August 9. Go to FarwestShow.com/ New-Products-Showcase-Submissions.

NOVEMBER 15-16

OAN CONVENTION: LICENCE TO GROW

Save the date! Join us at the picturesque Oregon Coast as we celebrate a great year at the OAN Convention at Salishan Coastal Lodge in Gleneden Beach, Oregon, Friday-Saturday, November 15-16. Enjoy social time with old and new friends, talk about the issues that are vital to Oregon nurseries, enjoy the sandy beaches, and honor the industry's achievers at the annual President's Awards Banquet. Complimentary childcare provided. Registration will open in September.



BAILEY' JUMPSTARTS'



MORE FLEXIBILITY AND CONTROL TO GET THE JUMP ON CONSUMER DEMAND.



fast-finishing times to meet demand for popular varieties



extend growing windows beyond spring to spread out costs



hexagonal tray design minimizes transplant shock and root swirling



new jumbo-sized JumpStarts' 5.5 option streamlines production and freight costs

More than plants, with Bailey as your partner you get access to dedicated grower support, technical expertise and resources to help your operation thrive.



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.



Nursery supplier McConkey shuts down

McConkey, a manufacturer and distributor of horticultural goods based in Sumner, Washington, has shut down operations and closed, according to Eric Wyland at McConkey. No additional details were provided by the company. According to its LinkedIn profile, it employed between 50-200 workers.

The company was established in 1964 by Jack McConkey and at one time had a distribution center in Wilsonville, Oregon, The company was a third-generation, family-owned company.

McConkey is known for its wide selection of containers, including nursery cans, square and round plastic containers, peat pots, coir pots, hanging baskets, azalea pots, color bowls, flats, and trays. The company also offered nursery supplies and equipment such as polyfilm, polycarbonate, greenhouse structures, ground cover, soil, fertilizer, plug trays, dripper systems, irrigation booms, and automation equipment, according to its website.



The team from Patterson Nursery Sales, from left: Brett Macy, Cody Hahnlen, Matt Beutz and Patrick Hawekotte. PHOTO BY CURT KIPP

DUFFERS CLASSIC RAISES \$30K FOR OREGON NURSERIES' PAC

The annual Duffers Classic Golf Tournament, the big political fundraiser for the Oregon Nurseries' Political Action Committee (ONPAC) held on June 6, 2024, raised around \$30,000. "It was great to provide an opportunity for members to get together on a fun and personal level to strengthen relationships and benefit a good cause," Director of Events Allan Niemi said.

ONPAC interviews, evaluates, endorses, and supports candidates during every two-year cycle and involved members drive the process and engagement in the election process helps highlight critical issues facing the industry. To get involved, email JStone@OAN.org.

ONPAC Chairman Tom Brewer (The HC **Companies**) and OAN Government Relations Vice-Chair Tyler Meskers (Oregon Flowers) spoke to the sold out — 144 in total — nursery industry supporters at the awards luncheon at Stone Creek Golf Club in Clackamas, Oregon.

Award winners:

Long Drive — Tiffany Baker and Fritz Benz. Closest to the Pin — Carol Norman and Mike Rotchis.

2024 Duffers Classic winner — **Leonard** Adams Insurance Team: Brian Dooney, Fritz Benz, Jerry Phan, Todd McBride.

Second place — Aldrich CPAs + Advisors: Tom Harbolt, Curtis Sawyer, Jeff Elson, Eric Jamieson.

Many thanks to the sponsors and those who purchased string, mulligans and the variety of score-altering reduction methods. Presenting Sponsors: Brooks Tree Farm, Jordan Ramis **PC.** Banquet Sponsor: Leonard Adams Insurance, Woodburn Nursery & Azaleas. Cart Sponsors: Anderson Pots, Harrell's, Monrovia, Patterson Nursery Sales. Key Hole Sponsors: AgWest Farm Credit, Aldrich CPAs + Advisors, Bountiful Farms Nursery, HC Companies, KG Farms, Rosewoods Transportation, Syngenta **Professional Solutions**. Par 3 Hole Sponsor: American National Property & Casualty Co., Leonard Adams Insurance, Simnitt Nursery. Hole Sponsors: **Brentano's Tree Farm**, Brown & Brown, Dayton Bag and Burlap, Kernutt Stokes, Jordan Ramis PC, Smith Gardens. Beverage Sponsors: Left Coast Logistics, McHutchison, Park's Wholesale Nursery, SBI **Software**. Gift Sponsor: AgWest Farm Credit, Anderson Pots. Women's & Men's Long Drive Sponsor: Marion Ag Services.

FEW ARE USING STATE'S AG OVERTIME RELIEF LOANS, CREDITS

Two years after Oregon lawmakers passed an agricultural overtime law, few of the state's farmers and growers are using a zero-interest

loan program that was included in tandem with it, The Oregonian / Oregonlive reported. The loans were intended to help farmers cover added overtime costs. A tax credit program to help cover it also has been little used. Growers have turned to other methods of keeping labor costs down, like lowering their use of overtime.

"A lot of the agricultural stakeholders said our folks are never going to borrow on a future that they don't know," Jenny Dresler, contract lobbyist for Oregon Farm Bureau, told the newspaper.

OAN Executive Director Jeff Stone told Digger that the loan and credit programs' lack of use isn't surprising.

"Loans and tax credits are not the fixes the industry asked for," he said. "They were better than nothing, but a loan has to be paid back, and a tax credit only comes back later — the grower has

to float the cost in the meantime - so these programs don't provide the necessarv relief."

Stone added that lowering the use of overtime also ends up costing the worker. The OAN is working on an effort to address the burden of agricultural overtime requirements for the 2025 session of the Oregon Legislature.

OREGON STATE UNIVERSITY NAMES HORTICULTURE CHAIR

Dr. S. Patricia Stock has been named head of the Horticulture Department at Oregon State University and will start work on August 5, the university stated in an announcement.

Stock has an extensive background in horticulture, entomology, and agricultural leadership. She most recently served as dean of the College of Agriculture at California State University Chico. Prior to that she served as director of the School

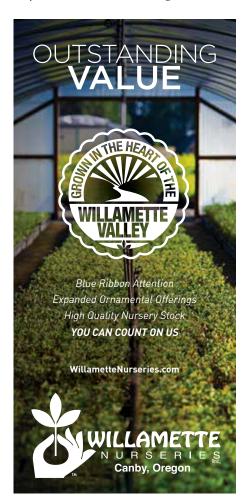
of Animal and Comparative **Biomedical** Sciences in the College of Agriculture and Life Sciences at the University of Arizona, Stock succeeds Bill



S. Patricia Stock

Braunworth, who served as department head of horticulture since 2013.

"Dr. Stock's extensive leadership experience, academic scholarship, and passion for the land-grant mission of teaching, research, and outreach is going to have tremendous impact at OSU,"





said Dr. Staci Simonich, dean of the College of Agricultural Sciences. "I am thrilled to welcome her to Beaver nation."

AMERICANHORT ANNOUNCES **NEW BOARD MEMBERS**

AmericanHort announced the addition of three new industry leaders to its board of directors, along with a new slate of board officers for the coming year.

The new slate of officers for 2024-2025 includes Ed Overdevest of Overdevest Nurseries LP as the incoming board chair and Kent Fullmer of Fullmer's Landscaping as the incoming board vice chair. Rob Lando of AgriNomix will become the immediate past chair and J. Harvey Cotten will continue to serve as board treasurer in a non-voting position.

The new board members:

Ken Altman is the co-president of Altman Specialty Plants (Vista, California), a leading U.S. breeder and grower of horticultural plants with international reach.

Tom Fessler is the president and co-owner of Woodburn Nursery

& Azaleas

(Woodburn, Oregon), and oversees a diverse operation renowned for florist azaleas, annuals, and containerized nursery stock. Fessler is a



Tom Fessler

past president of the Oregon Association of Nurseries.

Christine Fortman's corporate, nonprofit, and political experience serves her well as a third-generation owner of her family's retail nursery, Berridge Nurseries Inc. (Phoenix, Arizona).

U.S. DEPARTMENT OF LABOR **ISSUES FINAL RULE ON** TEMPORARY AG WORKER **PROTECTIONS**

The U.S. Department of Labor has

announced new rulemaking adding more protections for temporary agricultural workers. The new final rule, "Improving Protections for Workers in Temporary Agricultural Employment in the United States," took effect June 28.

The rule makes several changes to H-2A program regulations to bolster the department's efforts to prevent an adverse wage effect on workers in the U.S. The rule is intended to ensure that H-2A workers are employed only when there are not sufficient able, willing, and qualified U.S. workers available to perform the work.

The rule empowers workers to advocate on behalf of themselves and their coworkers regarding working conditions. It bolsters accountability for employers using the H-2A program, boosts transparency and accountability in the foreign labor recruitment process, and enhances existing enforcement provisions. It also improves transparency into the nature of the job opportunity by collecting additional information about owners, operators, managers, and supervisors to better enforce program requirements.

The final rule also strengthens protections for temporary agricultural workers when employers fail to properly notify workers that the start date of work is delayed. It clarifies and streamlines procedures to prevent noncompliant employers from using the Employment Service.

Read the rule at TinyURL.com/ AgLaborRules.

USDA UPDATES BOX TREE MOTH QUARANTINES

The United States Department of Agriculture Animal and Plant Health Inspection Service has posted a new Box Tree Moth Federal Order.

The order updates the box tree moth (BTM; Cydalima perspectalis) quarantined areas and establishes the conditions for the interstate movement of regulated articles of Buxus species, commonly called boxwood, from BTM-quarantined areas.

Boxwood plants may only be moved interstate from a quarantined area from an establishment operating under a com-



Box tree moth quarantined areas include all of Massachusetts, as well as parts of Michigan, New York and Ohio. There are no quarantined areas in Oregon. PHOTO COURTESY USDA

pliance agreement, and only if accompanied by a certificate issued by a state agricultural authority certifying that the requirements of the federal order and the compliance agreement have been met. All other regulated articles of boxwood, including plant parts, pieces, cuttings, clippings, debris, and any portion of the plant, alive or dead, except for decorative purposes, are prohibited from movement.

Quarantined areas include all of Massachusetts, as well as parts of Michigan, New York and Ohio. There are no quarantined areas in Oregon.

Download a PDF of the Box Tree Moth Federal Order at TinyURL.com/ BoxMothOrder.

INDUSTRY GROUPS ADVOCATE FOR PRACTICAL EPA FORMALDEHYDE REGULATIONS

AmericanHort, along with 14 other industry stakeholders, submitted a letter to the Assistant Administrator of the Office of Chemical Safety and Pollution Prevention Michal Freedhoff, addressing the Environmental Protection Agency's 2024 Draft Risk Evaluation for Formaldehyde, according to AmericanHort.

Formaldehyde is essential in the production of nitrogen fertilizers like urea and is also used to control diseases in bulb production, primarily in the Pacific Northwest. Implementing stricter limits on formaldehyde could potentially disrupt fertilizer and bulb production leading to shortages, increased costs, and risks to global plant production. AmericanHort urged the EPA to carefully consider realworld agricultural impacts to prevent unnecessary economic and production challenges.

Read the letter at TinyURL.com/ EPAFormaldehyde.

OREGON MODIFIES FAMILY MEDICAL LEAVE AND PAID LEAVE RULES

Oregon employers are faced with two significant changes in laws affecting the Family Leave Act that went into effect July 1.

Oregon Senate Bill 1515, signed into law March 20, 2024, revised the Oregon Family Leave Act (OFLA) to clarify the interplay between OFLA and Paid Leave Oregon (PLO) and eliminated much of the overlap between OFLA and PLO to avoid duplicate coverage for the same conditions, said attorney Peter S. Hicks of Jordan Ramis PC, in a summary of the changes. Plus, on April 23, 2024, the U.S. Department of Labor increased the minimum weekly salary threshold for certain exempt employees from \$684/week (\$33,696/year) to \$844/week (\$43,888/ vear).

OFLA provides up to 12 weeks of protected unpaid family leave for only these purposes:

- To care for a child of the employee who is suffering from an illness, injury or condition that requires home care, whether or not it is a "serious health condition;"
- Due to the closure of the child's school because of a public health emergency; and
- For bereavement leave related to the death of a family member, up to two weeks per death to a maximum of four weeks per year. This counts towards the total 12 week entitlement.

OFLA no longer provides leave for an employee's own serious health conditions or to care for a family member (other than a child) with a serious health condition, or parental leave to bond with a new child.

These leaves instead will be covered by PLO. Employers will also no longer be able to run OFLA concurrently with PLO.

To read more about the changes, go to TinyURL.com/OFLAChanges.

WILLAMETTE RESERVOIRS IN SOLID SHAPE FOR AG **IRRIGATORS**

The Willamette River system of reservoirs appears in solid condition for agricultural irrigators this summer, according to a report from Capital Press, an ag newspaper based in Salem, Oregon. "From today's perspective, this water year, everything looks good. I don't see any concerns," said Salina Hart, Portland district chief of the U.S. Army Corps of Engineers.

The Willamette basin has 13 reservoirs — 11 that are multiple purpose storage and two that are regulating stream flows below main dams. The 11 multipurpose reservoirs averaged 85.6% above minimum level as of May 30 and several were essentially full.

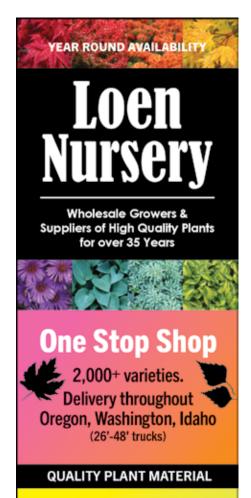
OAN AND OTHER AG **EXECUTIVES DISCUSS PRESSING ISSUES WITH KOTEK**

Executives from agricultural associations, including the OAN, met with Oregon Gov. Tina Kotek recently to discuss pressing issues for the industry including agricultural overtime, water supplies, agricultural housing and more.

The meeting allowed the ag commodity associations and the governor to connect on emerging issues. Kotek has shown interest in discussing issues and solutions with the ag execs. She brought along her natural resource advisers, Geoff Huntington, Chandra Ferrari and Karin Power, as well as Oregon Department of Agriculture Director Lisa Hansen.

Among issues addressed of concern to OAN members:

Ag overtime: The governor was briefed that a solution is being created that is both good for the worker and employer, and the governor was



- Japanese maples: 80+ varieties
- Shade & flowering: 20,000 in prod.
- Fruit trees: 10,000 in prod.
- Perennials, ferns and grasses
- Broadleaf and deciduous shrubs
- Roses: Shrub, groundcover
- Conifers: Grafted, seedling
- Groundcovers
- Rhododendrons and Azaleas
- Natives and vines
- · Berries: Blueberry, Logan, Raspberry
- Contract growing
- Yes, we have it!
- And yes, we can find it for you!

CONTAINER-GROWN AND CONTAINER-ESTABLISHED PREFERRED

Let us quote your COMPLETE plant list.

Wholesale Sales/Growing Facilities (Real people will answer your call)

Local Contractor's Yard

www.loennursery.com

Northwest News

reminded that she committed to examine fixes when the bill originally passed. "We also also informed her that the coalition is trying to enlist Oregon State University's Economic Department to extrapolate the OT impact data from California and Washington to demonstrate how the law would have the opposite intended impact of actually decreasing the earnings of Oregon farmworkers," OAN Executive Director Jeff Stone said.

Two rulemaking efforts that will be landing on the governor's desk were highlighted: Ag labor housing (Oregon OSHA) and conditional use permits/allowances on farmland (Department of Land Use and Development). Frustration was expressed in both rulemaking efforts and the case was made that both will have substantial impact on growers. For example, on the issue of housing, the current rules on square footage allowance would cut the available beds by 50% and temporary

workers set to arrive for harvest may not have housing when they arrive. On conditional use permits/allowances on farmland, the Department of Land Use and Development has started a process to place restrictions on non-farm activity and in the process redefining what is a farm practice or product.

The ag execs and the governor will meet again in the fall to discuss agency budgets, legislative concepts for the 2025 Oregon Legislative Session.

Announcements

TOM BREWER PROMOTED TO **REGIONAL SALES DIRECTOR AT HC COMPANIES**

The HC Companies has promoted Tom Brewer to director of sales covering an assortment western territories. Brewer had previously been district sales manager coving Oregon and Washington. In his new role, he will oversee California, Oregon, Washington, Arizona, New Mexico.



Tom Brewer

Colorado, Utah, Idaho and parts of Wisconsin and Illinois.

HC Companies supplies pots and horticultural containers for the greenhouse, nursery and cannabis industries. It also offers sustainable fiber and bio-based solutions produced with post-consumer and postindustrial materials.

BAUMAN'S MAKES A SPLASH WITH PORTLAND CIDER **TAPROOM**

Oregon agritourism destination retailer Bauman's Farm & Garden (Gervais. Oregon) — known for its bakery, produce and cider offerings in addition to its plants and seasonal events — has opened a new cider taproom in Southeast Portland.

Located in a former microbrewery's taproom, Bauman's on Oak has 30 lines, half of them filled with Bauman's own ciders. The taproom also serves food, showcasing produce from Bauman's Farm & Garden.

Bauman's on Oak is located at 930 SE Oak St, 2-8 p.m. Thursday, 2-9 p.m. Friday and Saturday, 2-8 p.m. Sunday, BaumansCider.com/BaumansOnOak.

OREGON GROWERS AMONG MAGAZINE'S TOP 100

Five Oregon Association of Nurseries members are among Greenhouse Grower's list of Top 100 Growers. The growers: **Everde Growers**, 9; Woodburn Nursery & Azaleas, No. 10: Smith Gardens, 16: Bailey Nurseries, 38; Fessler Nursery, 71.

Prior listees Panzer Nurseries in Oregon and Skagit Horticulture in Washington were noticeably absent. They both closed in the past year.

Quality Barkat Wholesale Prices

Fir and Hemlock Bark • Sawdust **Compost • Hog Fuel • Fines** Rock, Chips, Bark Rock

Marr Bros. Bark has been serving the area with quality products and competitive pricing for over 30 years. And we deliver anywhere in the Willamette Valley!

When you want the best ... Marr Bros. is your only choice!

Call 503-838-1830 to schedule a delivery

Conveniently located at: 875 S. Pacific Hwy, Monmouth, Ore.





A cross section of speakers at the 2024 Farwest Show will reflect the range of members specialties and interests. OAN FILE PHOTO

Seminars cover range of topics

Some sessions will offer Spanish translation or be presented in Spanish

BY VIC PANICHKUL

here's a little something to pique everyone's interest this year at the 2024 Farwest Show in Portland, Oregon, August 21-23, as far as seminar topics go. "We've lined up a wide crosssection of speakers to reflect our member's specialties and interest," said Director of Events Allan Neimi.

"Attendees will find sessions to help them run their business more effectively, navigate challenges, deal with pests more effectively and explore new technologies and solutions," Events and Education Coordinator Jamie Moore said. "For Spanish speak-



ers, several seminars will be translated into Spanish and two will be presented solely in Spanish."

Highlights

Here's a sample of a few of this year's offerings:

Raymond A. Cloyd, Ph.d., professor and extension specialist with Kansas State University will present two sessions: Biological Control: "The Importance of Quality Assessment" and "The Fundamentals of Resistance Management." In the first session at

Raymond A. Cloyd 2:30 p.m. on August 21, Cloyd will provide examples of quality assessment based on his research of commercially available biological control agents including whitefly parasitoids, aphid parasitoids and predatory mites. In his second session at 8:30 a.m. on August 22, he will discuss the factors associated with resistance management including how resistance occurs, mechanisms of resistance and the

biological factors that promote resistance developing in insect and mite populations.

Linda Chalker-Scott, Ph.D., professor and exten-



Linda Chalker-Scott

sion specialist in urban horticulture at Washington State University will present "Gardening in a Changing Climate: What to Do and What to Avoid" at 11 a.m. on August 21. She'll present science-

Seminars cover range of topics

Scan the QR code to download the Spanish Breakroom Flyer.

Descargue el volante de la sala de descanso en español.



based practical strategies to help plants and soils conserve water and create more resilient gardens and landscapes.

Lloyd Traven, president and CEO of

Peace Tree Farm, LLC, will present "I Will Always Love You: Creating and Increasing Market Relevance" at 1 p.m. on August 21. Traven shares his frank obser-



Lloyd Traven

vations and advice about how to stay relevant and why it's crucial to the industry.

Todd Downing, co-founder/managing

partner of BEST Human
Capital & Advisory
Group will present "Building
your Bench:
Recruiting,
Motivating
and Retaining
Talent in the Green
Industry of Today
and Tomorrow"



Todd Downing

at 8:30 a.m. on August 22. The state of the labor market, especially in the green industry, means we must change our thinking about recruiting inside and outside the industry. Learn how your company's recruitment, retention, motivation, training, compensation and your social capital affect the strength of your team's talent.

Spanish sessions

For Spanish speakers, Both of Cloyd's sessions will offer Spanish interpretation as well as the following:

Jerry Weiland, Ph.D., research plant

pathologist, USDA-Agricultural
Research Service,
will present
"Production
Decisions
Influence Risks
for Boxwood
Blight Outbreaks"

at 11 a.m.



Jerry Weiland

August 21, with Spanish interpretation. Learn how production decisions can affect your risks for boxwood blight.

Silvia Rondon, Ph.D.

professor and Extension entomology specialist, Oregon State University and director of the Oregon Integrated Pest Management Cente will pres-



Silvia Rondon

ent "Solve Pest Problems: A New Nursery and Residential Resource to Effectively and Safely Manage Pests" at 1 p.m. August 21, with Spanish interpretation, introducing a new online tool managed by Oregon State University's Oregon Integrated Pest Management Center.

Alison Kutz, consulting director at Sound Horticulture will present "IPM

Strategies to Keep Pesticides in the Toolkit" at 9:45 a.m. August 22, with Spanish interpretation, covering the best practices for keeping beneficial insects



Alison Kutz

and microbial controls as the first line of defense in your greenhouse.

Anissa Poleatewich, Ph.D., senior manager product develop-

ment, Mycorrhizal Applications, will present "Mycorrhizae 101: Biological Root Stimulants," at 8:30 a.m. August 23, with Spanish interpretation, covering



Anissa Poleatewich

how to implement them into your growing operation and their effect on landscape plantings.

Elaine Sawyer, technical sales specialist, Sound Horticulture,

will present
"Creating a
Biocontrol
Program: Tips
and Tricks
for the Busy
Grower," at
9:45 a.m. on
August 23, with
Spanish inter-



Elaine Sawyer

pretation, will showcase best practices for creating a successful biocontrol program.

The two seminars that will be presented in Spanish are both on the Pest Management Track.

E. Vanessa Vassilaros, M.S., will

present "IPM for Horticulture Crops," at 12 p.m. on August 22, examining steps to prevent, decrease or contain pest and disease pressure using inte-



E. Vanessa Vassilaros

grated pest management strategies.

Luisa Santamaria, Ph.D., professor and Extension pant

pathologist at OSU, will present
"Advancing
Boxwood
Blight
Monitoring
Techniques,"
at 1:15 p.m.
August 22, exploring important



Luisa Santamaria

aspects to consider while monitoring and improve observation methods by looking at symptomatology, cultural practices, and environmental factors.

Vic Panichkul is publications manager at the Oregon Association of Nurseries and managing editor and art director for Digger Magazine. Contact him at 503-582-2009 or VPanichkul@OAN.org



Subsurface drip irrigation involves applying low volumes of water at low pressure through drip tape buried near plant roots. The system saves water and saves energy, said Kevin Stewart, director of marketing for Rivulis, a leading manufacturer of subsurface drip irrigation systems. PHOTO COURTESY RIVULIS

Subsurface drip irrigation tape emerges as an effective option

BY MITCH LIES

wenty-five years ago, subsurface drip irrigation was little more than a niche concept in the nursery industry. It was being used in a select number of ornamental tree operations, according to Kevin Stewart, director of marketing for Rivulis, a leading manufacturer of subsurface drip irrigation systems.

Today, as water resources have become scarce and energy costs have soared, more and more nurseries are turning to the technology as a means to improve water- and energy-use efficiency.

"We estimate that around 50 percent of the fruit and ornamental tree nurseries are using subsurface drip to efficiently water their crop," Stewart said.

While the technology may not fit all operations and all fields, growers who have adopted the system say it provides multiple benefits and is worth working

through issues to get the system up and running.

At its core, subsurface drip irrigation involves applying low volumes of water at low pressure through drip tape buried near plant roots.

"Instead of applying a lot of water with flood irrigation and then coming back in seven days and doing it again, with drip irrigation, you're applying a much smaller amount of water, but you're doing it every two or three days or when it is needed at a very high efficiency rate, typically as high as 90-95%," Stewart said.

Growers will typically bury drip tape between 4-6 inches deep, Stewart said, and just off center from the root zone of trees. Sam Doane, production horticulturalist at J. Frank Schmidt & Son Co. in Boring, Oregon, which was an early adopter of subsurface drip irrigation, said he buries the drip tape 5 inches deep and 5 inches off center in the shade tree fields.

"If you go too shallow, there are problems with soil settling, and some of the tape can be too close to the surface," Doane said. "And if you go too close to the tree row, when you put the stakes in, you can puncture the drip tape. So, it's sort of a compromise solution."

Noe Rodriguez, production manager at John Holmlund Nursery, said the Boring, Oregon, nursery buries tape between 5-6 inches deep and just 2-3 inches from plant roots in an effort to ensure that water and nutrients reach roots.

The nurseries will leave tape in for the duration of a crop, typically two to five years, before digging up the old tape and replacing it with new tape.

The benefits

Subsurface drip irrigation reduces a nursery's water use, energy use, fertilizer use and provides significant savings on labor.

"The water savings are amazing, because the water is not affected by wind," said Nancy Seida, sales representative for H.D. Fowler Company in Wilsonville, Oregon, which works with several drip tape manufactur-

Efficiency underground



Workers install drip tape approximately five inches deep while planting ornamental trees at one of J. Frank Schmidt & Son Co.'s farms in Canby, Oregon. Photo COURTESY J. FRANK SCHMIDT & SON CO.

ers. "There's no overthrow and there's no wind effect. The water gets directly to the root zone of the plants, where it can be consumed by that plant."

"We confidently feel like there is a 20 percent benefit in water savings as far as moving from overhead sprinkler irrigation to drip," Stewart said.

Many growers also are finding benefits in injecting fertilizer through subsurface drip systems, according to Stewart. "They're maximizing the full value of that delivery service because you're providing the fertilizer directly to where it is needed, which is right near the root zone of the crop," he said.

Doane said J. Frank Schmidt & Son reduced the amount of fertilizer it uses by about 30 percent when it switched to a subsurface drip system.

Energy savings can also be significant, in part because the improved efficiencies of subsurface drip systems allow growers to have shorter irrigation run times. "Since you're watering so much more efficiently, you tend to water for a lesser run time," Seida said. "And if you have a lesser run time, then you have lower electrical costs on your pumps."

Also, Stewart noted that operating pressure of a Rivulis system is around 10 pounds per square inch (PSI) versus the 50 to 60 PSI that most sprinklers utilize. "If you're pulling water out of a well or a ditch, it requires more than 10 PSI to lift that water and convey it to the field," Stewart said. "So, it's not 10 PSI at the pump. It might be 30 PSI at the pump, but you're still looking at 30 PSI versus 60, so that is pretty significant in terms of energy savings."

Doane said the energy savings provided by the drip system alone covers the cost of the drip tape. Other costs, such as the installation costs of the infrastructure to operate the system, the piping, manifolds and other equipment, need to be amortized over time, Doane said.

Another benefit of the technology is in the increased acreage a nursery is able to irrigate in any one day. "We are able to cover a lot more ground when we use drip tape versus overhead irrigation," Rodriguez said. "If you set a line of sprinklers, you can water maybe 15 to 20 rows at a time, and it uses a lot of water because you're watering 100 percent of the field. With the drip tape, you can water maybe four or five times as many rows and you're only watering the root zone."

Also, with subsurface drip, workers are able to work in a field while irrigation is taking place, something they often aren't able to do in overhead systems.

"If you're overhead irrigating, it's pretty difficult to have workers out there doing whichever horticultural job is being called for," Doane said.

Also, Doane said, it is easier to drive tractors through fields when the area between the trees isn't getting irrigated, a benefit drip provides over sprinkler irrigation.

And because tape is buried, there is less likelihood that a worker will damage the tape during routine work, Seida said.



A fertilizer injection station and subsurface drip irrigation system manifold are pictured at J. Frank Schmidt & Son Co. The nursery applies liquid fertilizer through the system. Photo courtesy J. Frank Schmidt & son Co.

"Because the tape is buried, you don't disrupt it, you don't hurt it, you don't slice it accidentally if you're doing hoeing or some other work. You're not damaging the tape because it's underground."

One of the biggest benefits nurseries derive from using subsurface drip irrigation can be found in labor savings, an issue of particular importance to West Coast nurseries due to the high state minimum wages and now the additional requirement in Oregon of paying overtime wages to farmworkers.

Doane said J. Frank Schmidt saw a significant reduction in the amount of labor required to run its irrigation system after switching to subsurface drip. "Our drip irrigation crew on our Canby farm, which is about 1,200 acres, is three or four people," he said. "If we had overhead, we would probably have a crew of 16 for our irrigation."

Other benefits, such as reduced weed pressure, are less obvious, but still significant, Stewart said, as by putting water only where it is needed, a grower isn't watering between the rows and promoting weed growth. "You're not irrigating the

entire field and so your weed reduction is going to be significant," Stewart said.

Subsurface drip also can reduce disease pressure as drip irrigated fields tend to be less humid than sprinkler irrigated fields. "You're not putting excess water out there, which can create really moist conditions, which can be ideal for fungi to grow in," Stewart said. "With drip, you have a better chance of reducing the impact of those diseases."

The drawbacks

Still, there are drawbacks to subsurface drip irrigation that need to be considered when growers are mulling whether to switch to the system, one of which is the system's high installation costs, a cost that Doane said can be substantial.

Also, removing the drip tape between crops can be labor-intensive, Doane said. "Probably the least efficient part of the process is getting the tape out of the field," he said. Getting a recycler to take the used drip tape can be difficult, given that the tape typically is dirty and needs to be cleaned before it can be recycled. "The price for the recycled plastic has to be high

enough that there are recyclers willing to work through those headaches," Doane said. "When the market is down, they just say, 'Call back later,' or 'No thank you,' and the tape just sits in the yard until we get a big enough pile that somebody is interested in taking it off our hands."

And drip systems have limitations when it comes to jobs like watering in preemergent herbicides or washing dust off leaves to minimize spider mite habitat.

"We will still do a couple of overhead irrigations (a year) just to help with that," said Doane, who noted that I. Frank Schmidt still has dedicated lines for overhead in its drip irrigation fields.

Also, with overhead irrigation, a grower can lower the temperature in a field more so than with subsurface drip, a benefit that can be particularly beneficial in excessive heat events, such as the heat dome that struck Oregon's Willamette Valley in 2021.

"I've seen substantial changes in field temperature following overhead irrigation that you don't see with drip," Doane said.

Also, overhead can provide frost protection during cold snaps, something

Chamaecyparis Sciadopitys Kalmia Thuja Picea



Rhododendron Boxwood Prunus Pieris Ilex

Container and Field Grown Ornamentals

Phone: 503-663-1200 • Fax: 503-663-5134

www.reardonnursery.com info@reardonnursery.com

10050 SE 282nd Ave Boring, OR 97009



OREGON NURSERIES

Your contribution today helps prepare the nursery industry leaders of tomorrow.

Contact the Oregon Association of Nurseries for more information: 503-682-5089 or 888-283-7219.

The ONF is a nonprofit 503(c)3 corporation. Donations may be tax-deductible; consult a qualified tax attorney or accountant.





Specializing in Nursery Lumber Needs!

- Tilt Sticks
 1x1-8' or cut to your length
 2x2-8' or cut to your length
 1x2-8' or cut to your length
- Tree Stakes
- Container/B&B Pallets
- Gates/Gate Boards
 1x4-8' or cut to your length
- Shipping Rack Kits

Call Michelle at **503-803-1175 FLLUMBER@AOL.COM • WWW.FLLUMBER.COM**

Where Great Customer Service is a Given!

We accept Credit Cards

Efficiency underground

drip can't do.

Another potential drawback to subsurface drip irrigation is that an operation might not discover a problem until the problem escalates in importance. "You can't see that there's a problem," Seida said. "You can't see water spraying out. It's not visible." Eventually, a grower will notice an overly wetted area, she said, but in the meantime between the occurrence of the tape's puncture and the identification of the problem, trees at the end of the row will have gone without adequate water for a period of time.

And, depending on the water source, growers often have to apply filters to systems to prevent dirty water from clogging emitters.

No silver bullet

The bottom line, Stewart said, is subsurface drip irrigation is not a silver bullet that can solve all your irrigation issues, but rather a tool that can help growers improve their water-use efficiency.

"Some challenges that need to be considered when adopting drip irrigation are field topography, rodent and insect pressure and water quality," Stewart said. "Each of these challenges can be overcome with proper tape selection, a great field design, proper filtration and a good strategy to address insects and rodents."

Also, Doane said, in some ball-andburlap production systems where trees are harvested individually, subsurface drip often isn't the best choice, given the likelihood that the drip tape will be punctured in the harvest operation.

Still, Doane said that the benefits of subsurface drip irrigation are such that it can be worth working through issues when they arise. "I would encourage people to not quit when they run into a problem, to instead work toward a solution," Doane said, "because I think the benefits of subsurface drip irrigation are very significant."

Mitch Lies is a freelance writer covering agricultural issues based in Salem Oregon. He can be reached at MitchLies@Comcast.net.



Plants such as hawthorn can do double duty in the garden, providing both shelter and food for birds like this cedar waxwing (Bombycilla cedrorum). ADOBE STOCK

Nurseries making it easier for homeowners to create urban habitats for critters

BY ERICA BROWNE GRIVAS

ven the smallest action can create powerful change, starting with the plants we choose to grow. To an animal or bird, a single shrub or grass can be a winter home, nesting cover, or a source of food. While pollinators are getting a lot of attention the green industry is increasingly looking for ways to support wildlife to shore up our ecosystem.

A new landscape

For much of human history, we've viewed nature as inherently separate from us. If it wasn't useful to us, it had better move. Now, losing species at an unprece-

dented rate due to the destruction of habitat, we are seeking ways to bring nature and wildlife back into our landscapes for our mutual benefit.

"As humans, we have to change the way we are thinking about wildlife," said Nicholas Staddon, plantsman and spokesperson for **Everde Growers**, a multistate wholesale grower based in Houston, Texas with nurseries in Oregon, Texas, Florida, and California. "If we want it, it's up to us."

At this writing, over 1400 animal (vertebrate and invertebrate) species are endangered, according to U.S. Fish and Wildlife Service. And the National Wildlife Federation said that approximately one-third of America's wildlife species face extinction.

"Gardening for wildlife, with native plants at its core, is essential right now because natural habitats are disappearing at an alarming rate, causing cascading impacts on the environment," said Mary Phillips, head of native plant habitat strategy/certifications for the National Wildlife Federation (NWF). "When numerous individuals establish wildlife gardens, they form a network of small habitats that substantially boost wildlife resources."

Wildlife is moving wherever it can to find resources, colonizing city parks, skyscrapers, and suburbs. In Seattle, it's not uncommon to see a coyote or raccoon lope down the sidewalk, while hawks nest in bridges and apartment buildings. Thanks to a now-famous mountain lion called "P-22," Los Angeles' Highway 101 is being refurbished with plantings as "the world's largest wildlife crossing" to connect fragmented habitats.

There is hope in the housing



A wildlife buffet



First Editions Fiber Optics® Buttonbush (*Cephalanthus occidentalis* 'BAILOPTICS' PP29475) is a compact selection of the native buttonbush, with tremendous wildlife benefits including nectar-filled flowers and a seed head that is eaten by waterfowl. Photo COURTESY FIRST EDITIONS® SHRUBS & TREES

sector, too. Since 2019, The NWF has partnered with Taylor Morrison, one of the country's largest homebuilders creating more than 7,622 acres of Certified Wildlife Habitat® and 110 Natural Certified Open Spaces™ in its housing communities, said Phillips.

"NWF experts ensure each site features native plants, conserves water, and uses no chemical fertilizers or pesticides. In addition, certifications will require habitat management plans and commitments to both public education and ongoing stewardship of the landscape."

This same thinking can help our growing fields and landscapes.

"We always take a proactive approach to laying out utilities, building roads, and designing buildings," said Alec Charais, chief marketing and product development officer, **Bailey Nurseries**, a wholesale grower with three Oregon farms that is based in St. Paul, Minn.

"It seems obvious that we should put

the same thoughtful, intentional effort into designing our yards, commercial landscaping, etc. to coexist with wildlife in a mutually beneficial way. As the only species on the planet with agency, it's our duty to protect the ecosystem."

Yet there may be some pushback to welcoming wildlife when folks are used to excluding it for various reasons.

"I typically hear clients concerned about deer destroying certain crops and how they need resistant crops, said Josh LaPointe, West Coast sales manager for **Rio Verde Plantas**, an Oregon wholesale grower of container shrubs and trees, and Schwope Brothers Tree Farm, an Oregon supplier of bare root trees, both owned by DCA Outdoor, based in Kansias City Missouri. "This doesn't preclude the necessity of supporting other types of nature though. We are just starting to turn the corner on responsible planting with a mind toward wildlife-supporting habitats."

Gardeners are learning about the

value and beauty native plants can offer, and the ways to nourish and protect wildlife in our outdoor spaces. Oregon's Backyard Habitats program (BackyardHabitats.org), for example, has 12,000 members. Unlike many self-reporting programs nationwide, this program certifies up to three levels, sends people to verify your claims, and asks you to remove invasive species, add native plants, reduce pesticide use, support stormwater management and wildlife.

Thanks to the Columbia and the Willamette rivers, the website said, "The Portland-Vancouver region sits at an incredible ecological crossroads." In fact, it's part of the Pacific Flyway for bird migration. Not only does the region host 209 of Oregon's 500 bird species, but it's also critical habitat for amphibians, fish and other wildlife.

Plant more of the right plants

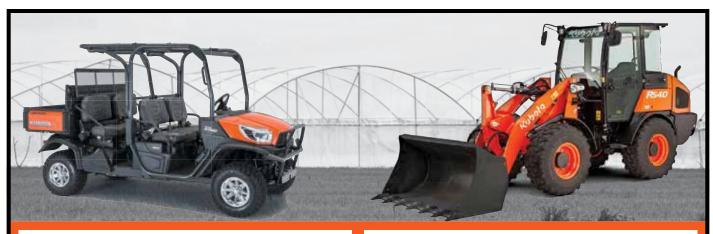
Increasing and connecting our green

spaces are essential, ecologists say, so simply planting more is important, from groundcovers to shade trees, and rain gardens to eco roofs. We can further maximize the leverage of our plantings by choosing keystone species that support greater numbers of species, and by selecting plants so our landscapes support wildlife year-round.

Portland-based designer Amy Whitworth of Plan-it Earth Design (Plan-It-EarthDesign.com) said, "Using the forest as a model, I think about all the layers of plants from the tallest tree to the lowest groundcover and try to incorporate as many of those layers as I can: overstory trees, understory trees, tall shrubs, medium and small shrubs, herbaceous perennial layer and groundcovers, and strive to layer the plants in a way that they will cover the ground, acting as a green mulch, so their shapes interlock and fit well



First Editions Lotus Moon™ Pearlbush (Exochorda) can provide shelter for nesting birds. PHOTO COURTESY FIRST EDITIONS® SHRUBS & TREES



RTV-X1140

- 24.8 Gross HP,† 3-Cylinder Kubota Diesel Engine
- Easily Transitions from Cargo Bed to Second Row of Seating
- Variable Hydro Transmission (VHT-X)

R540

- 50.9 Gross HP† Kubota Diesel Engine
- High Visibility Cab with Enlarged Front Glass, Full Size Right Side Window • New Standard LED Working Lights





OES® MCMINNVILLE 2700 ST. JOSEPH RD. 19658 HWY. 99 E. 33599 HWY 99 E. MCMINNVILLE, OR (503) 435-2700

OES® HUBBARD HUBBARD, OR (971) 216-0111

OES® TANGENT TANGENT, OR (541) 926-1811

OURS: MON.-FRI. 8-5 • SAT. 8-NOON

1-866-385-9073 • orequipmentsales.com • linnbentontractor.com



† For complete warranty, safety and product information, consult your local Kubota dealer and the product operator's manual. Power (HP/KW) and other specifications are based on various standards or recommended practices. K1042-24-150961-5

A wildlife buffet



A blackberry called Taste of Heaven™ (Rubus 'Ponca' PP33330 CPBRAF) from Proven Winners provides sweet fruit for birds and the canes are thornless. Photo COURTESY PROVEN WINNERS



Wholesale Growers of Fruit, Flowering, Shade Trees and Deciduous Shrubs

Frost Peach ® Hanna's Heart ® Katsura

Growing since 1974

360-848-5151 FAX 360-848-5959

Mount Vernon, WA

www.BiringerNursery.com

amongst each other."

Staddon sees hedgerows as a winning strategy providing nesting cover, various foods, and shelter from wind and rain to animals who can't reach trees. In addition to making a great wildlife highway, they can be windbreaks and privacy screens.

"Highways need to be mixture of food-bearing, evergreen, and thick dense plants to allow creatures to move undisturbed from garden to garden and community to community."

His first choice? Hawthorns. "The thornier the better," he said. "They offer great nesting cover, are terrific food source, and some varieties are even evergreen."

Having co-evolved with local wild-life, native plants are likely to be the most successful, and those local to your region even more so. But rather than overplanting the same five foolproof natives, experts say ultimately diversity is more important to resiliency than planting 100% natives. Even within a single plant type, conservationists take care to preserve multiple sources, because they will have different adaptations.

Nature and its creatures are adaptable — as shown by prominent examples

like P-22 in Los Angeles — and can find food and shelter in many plants (with some specialist exceptions). So, while native plants are ideal, diverse plantings of non-invasive plants can also create bountiful habitat.

Are wild gardens messy?

"It's true that native gardens can look a little more on the wild side and regularly cutting back plants and hedging them will cut off flowers and fruits that could otherwise provide food," Whitworth noted. "However, they don't have to look messy.

"Native bunch grasses (fescues) can give a clean look and be tidied up after winter. Native currants and other shrubs can be artfully shaped, and native *Ceanothus* shrubs have clean foliage that is attractive and can be shaped after it blooms. Our native huckleberry also has handsome foliage which could be shaped into a neat low hedge instead of using boxwood."

Some "wild" gardens, like meadows, are planned to be able to be mowed once annually, while hedgerows are meant to knit together in a crazy-quilt style that is rarely if ever pruned.



Red-twig dogwood (Cornus sericea), left, is a one-stop wildlife buffet with its fall berries. PHOTO COURTESY OREGON STATE UNIVERSITY

Another strategy is creating neat boundaries with clean edges or low hedging to add what designer Thomas Rainer calls "cues of care" — showing the hand of the

In addition, breeders are expanding our planting options with new compact or upright "garden-worthy" nativars and selections of classic favorites.

Some new and old favorites

"One of my newest favorites," said LaPointe, "is a blackberry called Taste of Heaven™ (Rubus 'Ponca' PP33330 CPBRAF) by Proven Winners and Spring **Meadow Nursery**." He called this thornless variety "supremely delicious."

He also enjoys elderberries in the garden. "We have started growing elderberry bushes ... [at home] as well," LaPointe said. "These are tasty for birds but we also harvest them to make a little immune system booster that the kids drink each evening."

Jude Hawley, designer for Farmington Gardens, a retailer with locations in Beaverton and Hillsboro, Oregon, said selecting for blooms, seeds and/or berries year-



NUTSETY GUIDE Nursery Guide.com



- Hundreds of Growers
- Thousands of Listings
- Millions of Plants

Search Nursery Guide.com and find it all!

Enter Terms ...

- PLANTS
- COMPANIES
- SERVICES





A wildlife buffet

round creates a garden enjoyed by humans and wildlife.

"Crabapple trees provide food going into winter, as do the native snowberries (Symphoricarpos alba) which usually fruit in November," she said. Red-twig dogwood (Cornus sericea) whose white summer flowers, fall berries, and even its twigs are a one-stop wildlife buffet.

Bailey's Charais found it hard to pick favorites but called out First Editions Fiber Optics® Buttonbush (Cephalanthus occidentalis 'BAILOPTICS' PP29475), a compact selection of the native buttonbush, with "tremendous wildlife benefits including nectar-filled flowers and a seed head that is eaten by waterfowl," and Lotus Moon[™] Pearlbush (*Exochorda* × macrantha 'Bailmoon') which can shelter nesting birds.

Remove the wrong ones

Invasive plants are a significant threat to native plants, so minimizing their spread is critical. Being up-to-date



Native snowberries fruit in November and provide food going into winter for birds. PHOTO COURTESY

EXCLUSIVELY FROM THE HC COMPANIES:

Elevate Your Brand with **Square Pot Printing**





VIBRANT FOUR-COLOR PRINTING - Stunning fourcolor printing on square containers, delivering crisp and precise branding colors that match your standards seamlessly.

ENDLESS ARTISTIC POSSIBILITIES - With four flat sides, each printed individually, our square printed containers offer limitless creative potential. Showcase unique artwork, messages, and imagery on each side.

STREAMLINED BRANDING - Incorporate UPCs, SKU numbers, and QR codes directly onto the container, eliminating the need for separate labeling and saving you money.

PALETTE OF POPULAR COLORS - Square containers are available in a wide range of popular colors to align with your brand's identity or create striking contrasts that capture attention.

COMPATIBILITY GUARANTEED – Our printed square growing containers come in a variety of sizes and seamlessly fit with their corresponding trays and flats, ensuring the perfect match.

LOCAL PRODUCTION, NATIONWIDE DELIVERY - Our containers are proudly manufactured and printed in the USA, guaranteeing quality while supporting Made In America. We deliver across North America for your convenience.

With this new innovative square pot printing capability, you can transform your brand's presence with our growing containers today! Stand out, simplify, and leave a lasting impression. Contact us now!





A wildlife buffet

about noxious weed lists and educating the public on this issue is important.

LaPointe said Rio Verde Plantas avoids growing invasive cultivars and species.

"One of the worst things you can do for any ecosystem is introduce an invasive species that pushes out all the natives so we are cognizant of that in our tree and shrub planning meetings," he said. Rio Verde Plantas is also expanding its range of edible shrubs.

Takeawavs

"Nurseries can take action to increase the availability of native plants, in particular, keystone natives (TinyURL.com/ KeystoneNatives), which have co-evolved with wildlife needs," the NWF's Phillips said.

"In addition, [they can] increase awareness about this issue with promotional displays that show the value of these plants to local wildlife species in the area. They can invite local naturalists and conservation groups to help train workers or directly educate consumers by hosting workshops and events that promote the importance and benefits of wildlife gardening and creating a wildlife demonstration garden at the nursery."

Charais said, "Providing education to both the trade and consumer is a crucial step in helping people recognize the benefits of shrubs that attract wildlife. For example, First Editions® branded plants call out benefits such as "attracts butterflies" or "attracts wildlife" clearly on the label and website."

The nursery industry is uniquely situated to improve the health of the planet, he notes. "The plants are a major part of a landscape that is inviting to wildlife, and we have the power as an industry to create habitats that are not only interesting but leave a legacy of making our world

better and better."

In addition, being open to using new plants that are more adaptable to current needs will benefit growers and consumers in the long run — as well as the planet.

"In some cases, the tried-and-true plants get used because growers are confident that they will have a market. But the more and more we open our design pallets to a broader assortment of species that offer the variability in season and function needed to sustain life, the more we are doing our part as a society and as an industry. We just have to keep trying new things," Charais said.

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

Reach green industry professionals



Advertise in the **Digger** August **Farwest Edition**

Take advantage of the energy and excitement of the largest nursery show in the West

and reach a targeted audience of green industry professionals.

With an increased distribution of 11,500 copies mailed to subscribers and distributed to show attendees, your marketing message will connect with motivated industry decision-makers before, during and after the 2024 Farwest Show.

Display ad deadline: June 24 All OAN members receive exclusive discounts



Contact: **Curt Kipp** Director of Publications and Communications

PORTLAND 2024

CKipp@OAN.org 503-582-2008

www.oan.org/ads

Digge CLASSIFIEDS

CALL Tana 503-682-5089 TO PLACE YOUR AD

PLACE YOUR AD TODAY!

HERE'S HOW IT WORKS:

- Select Standard (words only) or Display (graphic design with words and text) Classified ad format.
- 2. Determine general heading and subhead that ad runs under:
 - General: "Employment," "Plant Material," "Service/Supply," "Real Estate'
 - · Subheads run under general headings. Create your own, but be general: "Conifers." "Liners." "Equipment," etc.
- 3. Indicate number of months to run.
- 4. Indicate any blind box for confidential replies. We assign number and mail any responses.
- 5. Compose ad Designate headlines
- 6. Email ad by deadline, Wednesday, July 10 for the August 2024 issue.
- 7. We bill established clients after publication. New clients may need to
- 8. We reserve right to edit for content.
- 9. Annual contract discounts available (12-month commitment).

AD RATES

CLASSIFIED LINE AD

- \$40/column inch for OAN members / \$60 for nonmembers.
- Regular, one-column, standard typeface, approximately 28-38 characters per line, 7 lines per inch. Use headlines, bold, italics and special characters.
- · Corporate logo (black & white) \$30 additional charge.
- · QR code for URL of choice added free (counts for ad length by inch)

CLASSIFIED DISPLAY AD

- \$50/column inch for OAN members / \$80 for nonmembers.
- · Use logos, display type, borders, screens or reverses.
- Production charges @ \$69/hour.
- Electronic ad files can be supplied. Call for production details

JOB ADS ONLINE

· Employment ads also include online post to DiggerMagazine. com/jobs and OAN.org/jobs. Pay by the inch as above, or use online-only option: \$125/month members, \$150 nonmembers.

Digger Classifieds

29751 S.W. Town Center Loop W., Wilsonville, OR 97070 503-682-5089 503-682-5727 fax ads@oan.org

EMPLOYMENT

PROPAGATION MANAGEMENT **POSITION**

Iseli Nursery is a wholesale grower located in Boring, Oregon, twenty miles east of Portland. Established in 1975 by the late Jean Iseli and his brother André, the nursery has evolved from the original 10 acres to 900 acres and currently has 250 employees. For the last 50 years, Iseli Nursery has pursued the goal of becoming the world's finest provider of dwarf conifers, Japanese and hybrid Asian maples, and complimentary plants to independent garden centers, re-wholesalers, and landscape customers. Our propagation department is the engine of the nursery. Nearly all our products are initiated here in our own facilities by a staff of more than 40 employees, primarily as rooted cuttings, and grafts. We are seeking a horticultural professional who will work alongside our current Propagation Manager, learning the position and acquiring the skills required to eventually take over as the department head. This is a once in a lifetime opportunity that offers the chance to ascend to a critical leadership role at Iseli Nursery.

The position requires a candidate who is skilled at communicating and collaborating. This person must be passionate about learning and applying both the practical and technical aspects of growing and propagating woody plants. We are looking for a leader who will mesh well with our current staff and empower and inspire the team. The right person will be a problem solver who is able to remain flexible, approaching challenges with a humble attitude.

Benefits: • Health, dental & vision insurance • Life insurance: company provided life & AD&D policy • Short and long-term disability insurance offerings • Voluntary life/AD&D insurance offering • Flexible spending plan: pretax accounts for medical & dependent care expenses • Paid time off • Tuition reimbursement

• 401k employer matching contribution is 100% of the first 3%, 50% of the next 2% Required Qualifications: • BS in horticulture or related field • Professional propagation and management experience, minimum 5 years

Please email resume and cover letter to: Alicia Fernandez, Human Resources, afernandez@iselinursery.com



EMPLOYMENT

INSIDE SALES REPRESENTATIVE

TSW Nursery Sales Inc. is seeking a plant-knowledgable inside sales representative with 3-5 years of sales experience. The perfect candidate must be proficient in MS Office Suite and Quickbooks software, provide excellent customer service, have strong verbal and written communication skills, manage their time, and be organized. Salary commensurate with experience.

Please mail or email cover letter and resume to:

TSW Nursery Sales, Inc. Attn: Human Resources P.O. Box 1217. Wilsonville, OR 97070 accounting@tswnurserysales.com



We are always looking for career oriented skilled staff. Our operations include wholesale growing, shipping, landscape contractor sales, and retail nursery. If you have the interest and skills needed to be a part of our team, please apply. We are growers of container and field grown ornamentals.

We are looking for people in the following areas:

- Sales / Customer Service (Wholesale/Retail)
- Production / Growers / Supervisors
- · Shipping & Receiving
- Inventory / Office Mgmt & Admin / Purchasing
- Pesticide / IPM Managers & Applicators
- Irrigation Management / Skilled Laborers
- Outside sales throughout U.S. & Canada
- Controller / Accounting Manager
- · Horticultural Website Developer

Applicants with specific work experience or education in the nursery industry is desired. Computer skills, Spanish / English bilingual, plant ID knowledge and equipment operation skills also preferred.

Pay commensurate with experience. Benefits to include: Paid vacation and sick leave, paid holidays, medical and dental insurance. Respond with resume to hr@loennursery.com to the specific job for which you qualify.

For more information, please visit us online at www.loennursery.com

NURSERY MANAGER

Flower World Nursery in Snohomish, Washington is looking for an ambitious "hands on" Nursery manager who is bilingual in Spanish and English. Must have 5-10 years' growing experience and looking for a career position with generous pay, benefits, and future company ownership. Responsible for 40% of nursery sales. Should be able to coordinate and supervise a crew of 12 -15. Send your application to john@flowerworldusa.com.

EMPLOYMENT

GROWER — LAKE VILLA, IL

Clesen Wholesale is seeking a grower responsible for assisting with plant irrigation, integrated pest management, grow plan compliance, crop care and maintenance and production support. Responsibilities and duties include: 1. Grow greenhouse crops to meet company quality standards. 2. Integrated Pest Management. 3. Monitor quality of incoming and outgoing product alerting SG and OM of any concerns of product that does not meet Clesen quality standards. 4. Crop Production. Plant crops in designated areas according to greenhouse processes and SG directions regarding proper depth, appropriate containers, and with complete trays. 5. Pull customer orders accurately and quickly with quality product and according to individual customer quality standards.

> For full job requirements, qualifications and benefits, and to apply, contact Salvador at 847-869-2257 or salvador@clesen.com



MAKE YOUR NURSERY CAREER HAPPEN!

Looking to grow in the nursery and greenhouse industry, or related businesses? Oregon nurseries post their openings here. We have job listings in print and online. Online postings are updated as we receive them.

Visit OAN.org/Jobs or DiggerMagazine.com/Jobs



SENIOR ACCOUNT **REPRESENTATIVE** — WEST COAST

Schwope Brothers West Coast in Banks, Oregon is seeking a Senior Account Representative for the West Coast. As the selling face of our tree farm operations, you'll be the go-to expert for our customers, providing unparalleled guidance and expertise to help them achieve their goals. You'll be the one who makes the magic happen, driving sales growth, and building lasting relationships with our customers. If you have a background in selling B&B or container shade and ornamental trees, you'll have a rock-solid foundation for success in this role. Your expertise will give you the path to quickly adapt and deliver tangible results from the start.

Knowledge, Skills, and Abilities:

Industry Expertise: • Comprehensive knowledge of the nursery industry, including plant material, market conditions, and regional differences • Understanding of plant hardiness and ability to make informed substitution suggestions

Sales and Customer Service: Ability to think critically and strategically to drive sales growth • Ability to build and maintain strong relationships with key clients • Strong communication and negotiation skills Operational Acumen: • Familiarity with inventory management, growing cycles, and crops on the ground • Understanding of customer needs and preferences

Technical Competency: • Proficiency in CRM software (SalesForce and SBI Preferred) • Experience with order management and logistics • Ability to learn new software and adapt to changing technology

Job benefits:

Health, dental and vision insurance with contribution the first of the month after 30 days; generous 401k match with immediate vesting; company paid life insurance, short term and long term disability; paid time off; paid holidays; a company culture centered around growth and innovation: and career development and recognition. DCA Outdoor Inc is a values based, purpose driven organization in service to our family of 12 brands. We operate in six states and have 700 employee swith revenues of \$99 million. An industry leader, our mission is to cultivate growth for our customers, our employees, our company and our world.

To apply please submit cover letter and résumé to Maria Gonzalez, maria.g@dcaoutdoor.com.

> More details at: DCAOutdoor.com/Careers

SENIOR ACCOUNT REPRESENTATIVE — MISSOURI

EMPLOYMENT

Schwope Brothers Tree Farm in Independence, Missouri is seeking a Senior Account Representative for Missouri. As the selling face of our tree farm operations, you'll be the go-to expert for our customers, providing unparalleled guidance and expertise to help them achieve their goals. you'll be the one who makes the magic happen, driving sales growth, and building lasting relationships with our customers. If you have a background in selling a variety of B&B trees, you'll have a rock-solid foundation for success in this role. Your expertise will give you the path to quickly adapt and deliver tangible results from the start.

Knowledge, Skills, and Abilities:

Industry Expertise: • Comprehensive knowledge of the nursery industry, including plant material, market conditions, and regional differences • Understanding of plant hardiness and ability to make informed substitution suggestions

Sales and Customer Service: · Ability to think critically and strategically to drive sales growth • Ability to build and maintain strong relationships with key clients • Strong communication and negotiation skills Operational Acumen: • Familiarity with inventory management, growing cycles, and crops on the ground • Understanding of customer needs and preferences

Technical Competency: • Proficiency in CRM software (SalesForce and SBI Preferred) • Experience with order management and logistics • Ability to learn new software and adapt to changing technology

Job benefits:

Health, dental and vision insurance with contribution the first of the month after 30 days; generous 401k match with immediate vesting; company paid life insurance, short term and long term disability; paid time off; paid holidays; a company culture centered around growth and innovation; and career development and recognition. DCA Outdoor Inc is a values based, purpose driven organization in service to our family of 12 brands. We operate in six states and have 700 employee swith revenues of \$99 million. An industry leader, our mission is to cultivate growth for our customers, our employees, our company and our world.

To apply please submit cover letter and résumé to Maria Gonzalez, maria.g@dcaoutdoor.com.

> More details at: DCAOutdoor.com/Careers

HELP WANTED

For jobs and key employees throughout California and the Northwest, call Florasearch, Inc. You know us. For more than four decades we have been bringing together key people and excellent companies in the nursery and greenhouse industries and allied trades. Check our references. Confidential. Employer pays fee.

Florasearch, Inc.

1740 Lake Markham Rd. Sanford, FL 32771 Ph 407-320-8177 Fx 407-320-8083

www.florasearch.com search@florasearch.com

FIND WHAT YOU'RE MISSING! Search for plants, products, services: www.NurseryGuide.com

PLANT MATERIAL

CLEARWATER GROWERS LINERS:

Arctostaphylos - 'Mass'; Carex; Ceanothus g. 'Pt Reyes'; Cotoneaster -'Lowfast'/ 'Coral Beauty'; Deschampsia caespitosa; Fragaria; Juncus; Liriope m. 'Big Blue'; Liriope spicata; Mahonia; Pachysandra; Pennisetum; Polystichum; Rubus c. Sarcococca; Thuja o. – Emerald Green'; 'Green Giant'; Vinca

1 GAL AVAILABILITY

Arctostaphylos - 'Mass'; Calamagrostis; Carex; Cotoneaster dammeri - 'Coral Beauty' / 'Lowfast'; Deschampsia; Festuca; Fragaria; Helictotrichon sempervirens; Juncus; Liriope; Mahonia; Pennisetum; Rubus; Sarcococca; Vinca

CUSTOM PROPAGATION AVAILABLE

Ph: 503-359-7540 Fax: 503-357-2282 Forest Grove, OR



BRANCHING OUT



Now offering 14 superior selections of ornamental trees. bit.ly/PW-Trees. Call 800-633-8859 Maria@SpringMeadowNursery.com

ADVERTISE JOBS WITH DIGGER

Call Tana @ 503-682-5089 to list them in print or online!

SCHURTER NURSERY

Arborvitae - Emerald Green Green Giants

Various Sizes & Varieties 503-932-8006





Reach more customers!

To place an ad, email us at ads@oan.org or call 503-682-5089

Ground Covers



Pacific NW **Native Plants**

Container • B&B • Bareroot

Environmental & Ecological Re-vegetation Landscape Contractor

> **Native Trees & Shrubs** Groundcovers Wetland & Riparian Plants **Conifers & Deciduous Trees**

Contract & custom growing year-round



A Valley **Growers** Nurserv

503-651-3535 • FAX 503-651-3044 www.valleygrowers.com email: vlygrwrs@web-ster.com Hubbard, OR • OR and WA Certified D/WBE Company

Northwest Natives



BARE ROOT NATIVE PLANTS

Acer, Alnus, Amelanchier, Betula, Conifers, Cornus, Fraxinus, Holodiscus, Lonicera, Mahonia, Malus, Physocarpus, Populus, Rosa, Salix, Spiraea, Symphoricarpos, Wetland Plants

> Over 300 species of source identified natives

Fourth Corner Nurseries

salesdesk@fourthcornernurseries. com

P: 800-416-8640 fourthcornernurseries.com

READ **ONLINE**

DiggerMagazine.com

Northwest Natives

PLANT MATERIAL



Native, Wetland and Riparian **Specialist**

Growers of Quality, Healthy, Ready-to-Sell Plants.

Phone: 503-632-4787 Fax: 503-632-5412

CONTRACT GROWING YEAR ROUND

21200 S. Ferguson Rd. Beavercreek, OR 97004

www.beaverlakenursery.com

Rhododendrons

The place

TALL RHODODENDRONS

Available up to 10' tall+ Also in cans, most 5' tall.

OPEN TO OFFERS

Hidden Acres Nursery Sherwood, OR

503-625-7390

www.hiddenacresnursery.net

Rootstock

TRECO®

THE FOUNDATION OF YOUR ORCHARD STARTS HERE.

PREMIUM QUALITY OREGON ROOTSTOCK **SINCE 1941**

TRECO® offers the finest apple rootstock, hazelnut trees and softwood cuttings.

WWW.TRECO.NU

Oregon Rootstock & Tree Co. Inc. P.O. Box 98 | Woodburn, OR 97071 p: 1.800.871.5141 f: 503.634.2344

FIND HUNDREDS OF GROWERS, THOUSANDS OF LISTINGS. **MILLIONS OF PLANTS. SEARCH ONLINE!**

Nursery Guide.com

WILLAMETTE NURSERIES

YOUR SOURCE FOR ORNAMENTAL SEEDLINGS, FRUIT TREE ROOTSTOCK, CUTTING LINER VARIETIES & MORE.

We specialize in understock for flowering, fruiting and shade.

WWW.WILLAMETTENURSERIES.COM

Excellent quality. Outstanding service. 25571 S. Barlow Rd. Canby, OR 97013 503-263-6405 Toll-Free: 1-800-852-2018 E-Mail: willamette@canby.com

REAL ESTATE

Retail Nursery Business for Sale



Established 1930, family owned and operated Extremely loyal clientele Consistent strong cash flow Highly profitable Nursery background a plus

Call: 503-223-2400 to book a tour

View on BizBuySell: TinyURL.com/Marbotts

CONTAINERS WANTED

WE BUY \$\$\$ used 1-gallon and 2-gallon nursery containers. Drop in or we'll pick them up (larger quantities),

Beaverlake Nursery. 21200 S Ferguson Rd, Beavercreek ÖR, 97004. Phone 503 632 4787

Email info@beaverlakenursery.com Monday-Friday, 7 a.m.-4:30 p.m



Equipment for sale

2001 GK H7 Tree Digger \$89,000

Chopper and Undercut Blade Included

Discs - \$1,800 each

Dayton, OR 503-437-4833

FIND PLANTS, **PRODUCTS AND SERVICES**

Search at:

Nursery Guide.com 🔪

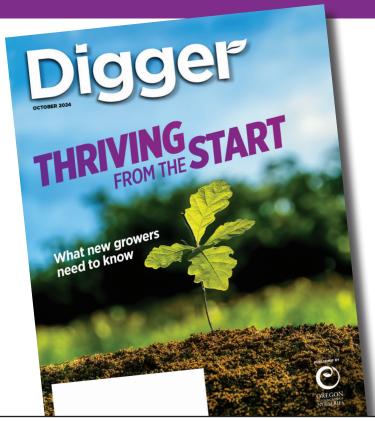


Diggel Advertisers

Please contact our fine advertisers for your plant, service and supply needs. To advertise in Digger, contact Curt Kipp at 503-682-2008 or ckipp@oan.org.

Anderson Pots40	Lane Forest Products11
Aumsville Equipment Sales	Leonard Adams Insurance35
Bailey Nurseries09	Loen Nursery Inc13
Biringer Nursery24	Marion Ag Service Inc06
Bowers Forest Products34	Marr Bros 14
F & L Lumber Inc20	Material Flow Systems25
GK Machine39	Motz & Son Nursery37
Harrell's Inc02	Nutrien Ag Solutions35
HC Companies27	Oregon Valley Greenhouses36
HIP Labelsiii	Reardon Nursery20
Hostetler Farm Drainage37	Rickel's Tree Farm37
J. Frank Schmidt & Son Coxvi	Schurter Nursery37
	Willamette Nurseries Inc11

SPECIAL ISSUE: All about startup nurseries



Advertise in the 2024 Startups Issue of Digger, pubished in October

This special issue covers what startup nurseries need to know about the business environment and growing plants, so they can prosper in the long run.

Reserve your display ad by

September 1

Contact: Curt Kipp CKipp@OAN.org 503-582-2008 www.OAN.org/Ads

GROWING

Series content is coordinated by Dr. Lloyd Nackley, associate professor of nursery production and greenhouse management 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



Leaves of tetraploid (left two) Acer ginnala are thicker and darker green than diploid (right two). Evaluation is underway to determine if polyploidy also confers increased drought stress that will make new cultivars more resilient in urban conditions. Photo courtesy of oregon state university

Ornamental Plant Breeding Program developing new cultivars for city settings

BY RYAN CONTRERAS, LLOYD NACKLEY. AND CAROLYN SCAGEL

ince 2009, the The Oregon State University Ornamental Plant Breeding Program has been dedicated to developing seedless varieties of resilient plant species that were previously considered invasive. This approach is crucial because when we introduce plants to urban and suburban areas, we need them to thrive despite facing challenging conditions such as limited soil space, poor-quality soil, compaction, intense heat, and drought.

Native plants as a solution?

Some suggest that native plants are the perfect solution, arguing that plants naturally found in a region are always better suited to the environment.

However, urban environments, with their disrupted soil, vast

stretches of concrete, and modern challenges such as power lines and underground pipes, hardly resemble natural habitats.

Therefore, many newly developed and selected plants are exceptionally well-suited for thriving in modern urban settings, despite not being native species. Of the seven plants the program has introduced, there are two cultivars of native species and another native hybrid.

Native plants are often beautiful, resilient, and perfectly adapted to their native habitats, but therein lies the rub: our urban environments are not their native habitat, and climate change is pushing the two further apart. As such, developing seedless cultivars of plants that not only survive but thrive in difficult conditions is among the main approaches we are using to breed for the future.

The taxa for which we have seedless selections or are working toward that goal includes several species of Acer, Berberis thunbergii, Buddleja (often complex hybrids), Hibiscus syriacus, Phellodendron amurense, Prunus laurocerasus and

Growing Knowledge

P. lusitanica (developing hybrids), and Spiraea japonica. Many of these are important at every step in the chain — they are economically important for growers, mainstays for commercial landscapers, and desired by consumers. The common thread often is their ease of production, beauty, and resilience.

Polyploidy, fertility, and physiology

For most of these examples, we are developing plants with additional sets of chromosomes (known as polyploids) that exhibit abnormal meiosis, which renders them seedless (or nearly so). This is the same reason that bananas do not set seeds; they are triploids, which means they have three sets of chromosomes.

Using this method we have developed seedless cultivars of Amur and Norway maples, Japanese spirea, althea, and Japanese barberry. It is exciting to

The Plantarray System - Functional Phenotyping Whole-Plant DIRECT PHYSIOLOGICAL Measurements

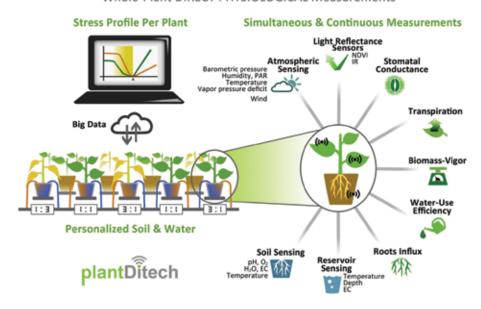
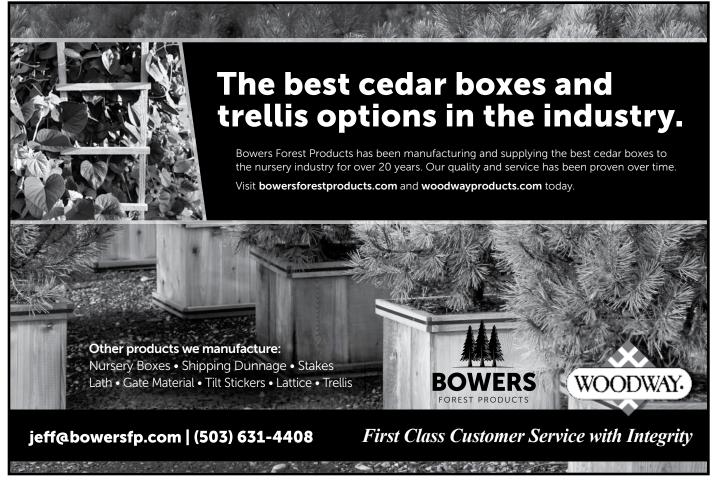


Fig. 1. Schematic overview of automated phenotyping system to impose specific drought stress and evaluate physiological response. Data collected includes key indicators of plants' ability to withstand drought stress, which are used by the software to assemble a complete picture of each plant over time. Photo COURTESY PLANT-DITECHCOM



think about the relatively near future of deploying these cultivars to support our industry. But what is additionally exciting is the potential that we have simultaneously improved their response to heat and drought stress while also rendering them as little to no ecological threat.

The notion that polyploids might confer an adaptive advantage is well-established. Following the influential paper by Blakeslee and Avery in 1937, numerous studies induced polyploidy in plants, aiming to develop new cultivars. However, outcomes varied widely, and the vision of "super-producing" forests remained unfulfilled. In fact, many conifer polyploids exhibit poor growth performance. Also, there are inconsistent results when considering how polyploidy impacts fruit size and quality.

What was less studied early on was how polyploidization impacted physiology. Scientists quickly measured stomata and found that polyploids have larger but fewer stomata, which logically may impact how plants use water since these are the organs for gas exchange (carbon dioxide in, oxygen and water vapor out). Indeed, reduced gas exchange has been observed in polyploids of petunia, phlox, feverfew, sage, chrysanthemum, and marigold (Ghasemi et al., 2021).

We have documented reduced stomatal index in polyploids of Hibiscus syriacus (Lattier et al., 2019) and Prunus lusitanica (Schulze and Contreras, 2017) but gas exchange was not measured. However, there is sufficient evidence to be excited about the prospects of improved drought stress and conduct future studies on the many polyploids we have.

New technology changed the game

Plant breeding is a multidisciplinary field in which the breeder must have some understanding of genetics, physiology, pathology, production, entomology, etc. but may only have true expertise in one or a few areas.

Related to the current topic, to accurately and reliably measure physiological response of plants to drought it is essential to collaborate with physiologists.



Nutrien Ag Solutions

Visit your local Nutrien Ag Solutions location today.

Cornelius, OR Dayton, OR

Brooks, OR Tangent, OR, Corvallis, OR Rickreall, OR

Cody Plath | 503.640.2371 Marc Smalley | 951.830.2164







Looking for a health plan for your business, employees and family?

Providence Health Plan is proud to work with Leonard Adams Insurance to offer members of the Oregon Association of Nurseries access to quality, affordable healthcare.



Standard features available with our various health plans:

- Multiple plan offerings
- Preventive medications with a \$0 copay
- · Chiropractic and acupuncture embedded for each member
- NEW for 2024: Option Advantage Plus plans offering a lab/x-ray benefit with the first \$500 fully covered



Additional member perks are available to cover other aspects of life, including:

- Personal health coaching
- · Fitness center and workout video discounts
- Emergency travel assistance
- ID protection
- · Savings on thousands of activities like movies, travel, or a night out on the town

Interested in learning more?

Visit lacoinsurance.com or contact Leonard Adams Insurance at 503-296-0077, or toll-free at 866-907-1850.

Growing Knowledge

Collaboration makes better science for many reasons, but in the case of physiology it is imperative to properly design and apply treatments and carefully measure plant response using specific tools at specific times.

These studies are more complex than simply growing plants and giving two treatments differing amounts of water over time. This has limited evaluation of our polyploids because of the labor-intensive nature of the work.

Additionally, traditional tools to measure physiological parameters provide a snapshot of how the plant is responding at the instant the measurement was taken. Of course, many observations assembled over time can create a better picture of response, but this increases labor and only so many collection times are feasible.

A recently developed product called the Plant Array (Fig. 1, Page 34) was introduced by Plant Ditech to change how researchers conduct drought stress phenotyping. Instead of challenging instrumentation that often requires coding knowledge or labor-intensive repeated measurements to ensure accurate application of intended drought stress, this new system is fully automated with off-the-shelf software designed with plant breeders in mind.

The data is collected instantaneously and continuously over the whole experiment. This allows for a full profile of the plant response instead of a snapshot. Data collection is fully automated, which prevents errors in data input and allows larger experiments to be conducted.

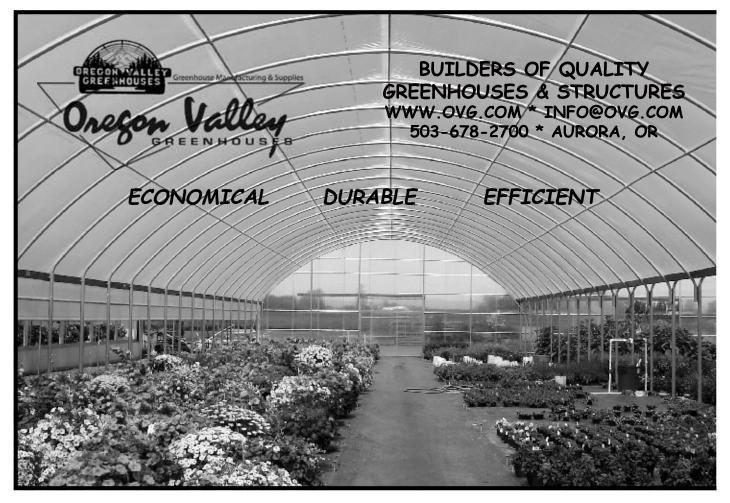
Two disclaimers are necessary. First, we own no stock in this company and have no conflict of interest. This system simply presents a new opportunity to conduct this work and we are excited to put it to the test. Second, we have

yet to install the system and begin using it. So, the excitement is all based on its promise. However, there are more than 50 scientific articles citing these tools such that we have high confidence of success (Plant-Ditech.com/References/Academic-Articles).

Current use and looking ahead

We are beginning this work on a suite of four polyploid taxa that are different geographically, phylogenetically (from four different orders), and functionally. They include deciduous shrubs (*Hibiscus syriacus* and *Spiraea japonica*), an evergreen shrub (*Vaccinium ovatum*), and a deciduous tree (*Acer ginnala*).

We are starting with these polyploids because there is a reasonable expectation that we will observe differences between ploidy levels, as described above. Additionally, these include already intro-



duced cultivars (Hibiscus syriacus Petite Pink Flamingo™ and Vaccinium ovatum 'Cascade Jewel') as well as selections we hope to introduce soon.

The plan is to expand the size of our system in the future so that larger populations can be evaluated including species from different climactic regions, different provenances of a single species, new hybrids, and likely more polyploids.

The horizon of this work hopefully includes evaluating gene edited selections that have been modified to increase gene expression associated with increased drought and heat stress. The preliminary efforts of that work are just beginning but the promise and potential for future application gives one excitement for tomorrow!

Dr. Ryan Contreras is professor and associate head of the Department of Horticulture at Oregon State University. He can be reached at Ryan.Contreras@ **OregonState.edu.** *Dr. Lloyd Nackley* is a plant physiological ecologist at the Oregon State University North Willamette Research and Extension Center (NWREC) in Aurora, Oregon. He can be reached at Lloyd.Nackley@OregonState.edu. Carolyn Scagel is the research Leader at the USDA horticultural-crops-productionand-genetic-improvement-research-unit. She can be reached at Carolyn.Scagel@ USDA.gov.

Literature cited

Blakeslee, A.F. and A.G. Avery. (1937). Methods of inducing doubling of chromosomes in plants: by treatment with colchicine. Journal of Heredity 28(12):393-411. https://doi.org/10.1093/oxfordjournals.jhered.a104294

Ghasemi, M., Aelaei, M., Akbari-Soltankohi, F., Chenar, H.M. and E.B. Rad. (2021). Studies on polyploidy induction for improvement of quality traits in ornamental and medicinal plants. Central Asian J. Plant Sci. Innovation 1:76-90. https://doi. org/10.22034/CAJPSI.2021.02.03.

Lattier, J.D., Chen, H., and Contreras, R.N. (2019). Variation in genome size, ploidy, stomata, and rDNA signals in althea (Hibiscus syriacus L.). J. Amer. Soc. Hort. Sci. 144:130-140.

Schulze, J.A., and R.N. Contreras. 2017. In vivo chromosome doubling of Prunus lusitanica and preliminary morphological observations. HortScience. 52(3):332-337. https://doi.org/10.21273/ HORTSCI11593-16.





HOSTETLER FARM DRAINAGE 503-266-3584

• Plastic Tubing 3"-24" • Laser Grade Control • Open Ditch for Buried Irrigation • Plows and Trenches • Pot-n-Pot Drainage • Oldest Drainage Firm in Oregon • Newest Subsurface **Irrigation Techniques**



Materials and **Technical Assistance Available**

ESALE GROWERS Motz & Son Nursery

SHADE & FLOWERING TREES FRUIT TREES Dwarf, Semi-Dwarf & Standard COMBINATION FRUIT TREES (4 in 1)

Semi-Dwarf & Standard **ESPALIER APPLES** Semi-Dwarf, Combination & One Variety WALNUTS & FILBERTS **DECIDUOUS SHRUBS**

www.motzandson.com 11445 N.W. Skyline Blvd. Portland, Oregon 97231 Phone 503-645-1342 FAX 503-645-6856









Transform your pickup — 3 beds in one!



LOAD > MOVE > DUMP

Easily move equipment & materials

CALL FOR INFO 866-994-3473 skip@truckdecks.pro

EQUIPMENT SALES www.truckdecks.pro



A pledge to America and a call to action

I find myself sentimental toward our nation and its promise to the world.

I feel pride and apprehension for our daring experiment of a form of government, which is powerful and yet at the same time fragile every four years as we pick a new president.

Elections matter. You as voters matter even more. While we celebrate barbecues, we are at a crossroads as to what our nation wishes to be. Recent debates on the Pledge of Allegiance, immigration and the 2024 election have brought into focus.

Debate on the House floor

Our society lacks civic knowledge, and that's not just the fault of our educational system, but all of us. Last month, one such flare up occurred on the floor of the U.S. House of Representatives. Reps. Glenn Grothman (R-Wisconsin) and Jaime Raskin (D-Maryland) got into a debate while discussing adding a citizenship question to the U.S. Census. Rep. Grothman made curious statements that republic stood for "Republican" and mentioned the role that Ben Franklin served and his notion that we are a republic — if we can keep it. Grothman's floor statement was greeted with a snark-filled comment by Rep. Raskin. Raskin mocked Grothman and compared the statement to his sixthgrade report on the Pledge of Allegiance.

The Pledge of Allegiance

The Pledge of Allegiance was written by a Baptist minister named Francis Bellamy on the 400th anniversary of Columbus's arrival in the new world. Bellamy, according to Raskin, an abolitionist from Vermont, was concerned about the continuing salute of the Confederate battle flag in the southern states. He wanted to write a flag salute that would be unifying for the union. He wrote, "I pledge allegiance to my flag of the United States of America, and to the republic for which it stands, one nation indivisible, with liberty and justice for all."

Bellamy's pledge did not include "under God." That was added in 1954 by Congress.

Raskin continued and pointed out that Ben Franklin was a big supporter of immigration to the country, despite an unheralded anti-German bias in some of his writings.

It is important to understand that our principles are set forth in the U.S. Constitution. We count everybody in the Census, and everyone counts as part of the reapportionment process. It has been that way since 1790.

Immigration as a tactic of fear

Such distractions, based on political expedience, are akin to a 5-year-old finger painting on the constitution itself. We are a land built on immigration. I would point to Thomas Payne, who with the help of Benjamin Franklin, emigrated to the American colonies in 1774. Upon his arrival, he began writing political pamphlets and newspaper articles calling for the overthrow of the British colonial government.

In his writings Paine said that this land (America), if it lives up to its principles, would become an asylum to humanity, and a place of refuge for people seeking freedom from religious, political and economic oppression.

That is, in the end, who we are. Our hotel, construction and agricultural sectors need people. What we need also is a lot less demagoguery about who we are as a country. The 14th Amendment tells it all in the census provisions. We are a county that includes everyone who wishes to seek opportunity and hope, willing to follow the law and follow our constitution, and be a part of this great and prosperous nation.

Buckle up for the presidential election

Arthur M. Schlesinger Jr is the preeminent political historian of our age. A former special assistant to President John F. Kennedy, Mr. Schlesinger put in context the relationship between the three branches of government.

To paraphrase a section in the Benjamin Harrison presidential book, Schlesinger wrote, "While the president is a central player in America's political order, the founding fathers would find this in contradiction to the monarchy that they fought so hard to prevent. To that end, our forefathers created



Jeff Stone
OAN EXECUTIVE DIRECTOR

a tripartite separation of powers. Alexander Hamilton's proposition of a strong president was enacted but equally in place was a strong system of constitutional accountability. Presidents can serve us as inspirations, and they also serve us as warnings. The Supreme Court has opined that the nation has no right to expect that it will always have wise and humane leaders and recognize the values, frailties and flaws of the voters who vote for a president and Congress."

A warning from Ulysses S. Grant

"If we are to have another contest in the near future of our national existence, I predict that the dividing line will not be Mason and Dixon's, but between patriotism and intelligence on the one side, and superstition, ambition and ignorance on the other." — Ulysses S. Grant

American democracy, and her republican form of government, is not assured. It is reaffirmed and vindicated every election cycle. As citizens, we have a shared commitment to hold all those in power into account and use our voice to shape our nation.

When I think of the month of July and our nation's enduring test of freedom and independence, I look in the mirror to ask myself: Am I worthy of this great nation in which we live?

I believe the nursery and greenhouse industry is the bedrock for our country and urge everyone to engage in our beautiful, if not flawed, democracy. America is better when we make decisions from a place of hope and freedom, not out of fear and anger. Agriculture is at a crossroads for survival, and we must all look inside, find our center, and vote in November.

M. B

GK MACHINE GREENHOUSES



Quality built commercial greenhouse packages are pre-engineered for easy installation and setup. All steel construction for lasting quality. GK carries fans, shutters, heaters, roll-up sides, doors, fasteners, hardware and a variety of covers.

WWW.GKGREENHOUSE.COM

DONALD, OREGON 503-678-5525

Better Field Pots

Can Increase Your Bottom Line



Anderson Pots is a Family-Owned, Oregon Company.



Anderson Die & Manufacturing 2425 SE Moores Street Portland, OR 97222

Tel: 503.654.5629 • Fax: 503.654.5655 1.866.950.POTS (7687)

