

Digger

FEBRUARY 2023

Greenhouse Issue '23

Profile: Oregon Flowers Inc. 19

Low-water lawn alternatives 23

Stretching poly to the limit 29

Improving your heat efficiency 39



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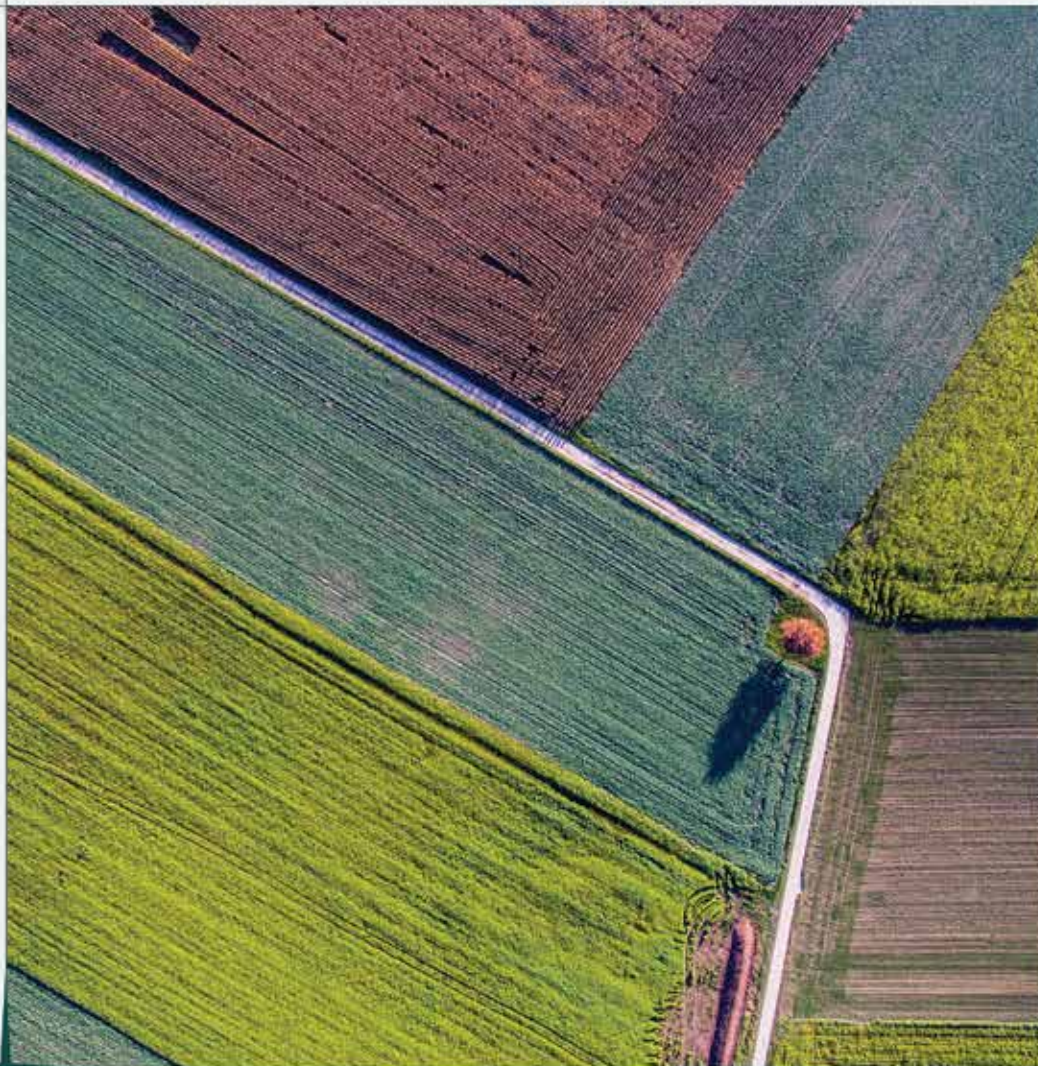
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The Greenhouse Issue

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OAN Member Profile: Tulips and lilies “grown with a Dutch touch” in Aurora, Oregon. **By Emily Lindblom**

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OSU researchers explore whether dogs can assist in vole management. **By Dana Sanchez and Nick Andrews**

On the cover: Dusk over the greenhouses at Oregon Flowers Inc. in Aurora, Oregon. This page, left: Martin and Helene Meskers. PHOTOS COURTESY OF OREGON FLOWERS INC.

Right: Chairs on a lawn of *Mazus radicans*. PHOTO BY AMY WHITWORTH / PLAN-IT EARTH DESIGN

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PRESIDENT'S MESSAGE

Speaking for the trees

Recently, I found myself thinking
about the classic children's book
"The Lorax," written by Dr. Seuss.



Todd Nelson

In his typical writing fashion, Dr. Seuss weaves profound lessons within the book's fun and whimsical pages.

In this story we meet two polarizing characters: the Once-ler, a greedy industrialist who made a living by cutting down beautiful truffula trees, and the Lorax, an unassuming character, short and ordinary in every way. Yet, when confronting the main antagonist of the story, he stands up and boldly proclaims, "I am the Lorax, I speak for the trees."

Like the trees in "The Lorax," the nursery industry faces many challenges. Misguided government overreach handcuffs us and limits our ability to move and act in the industry we all love. Increased fuel costs, power price hikes, labor laws and stringent water right regulations make it increasingly more difficult to succeed in growing this beautiful plant material. In addition to these complex issues, we are faced with the unpredictable force known as Mother Nature, with ever-changing weather patterns and more frequent natural disasters.

Despite the challenges the nursery industry consistently faces, I was buoyed up while in Baltimore for the Mid-Atlantic Nursery Trade Show in January. I was amazed at how many spokespersons there were for the tree and nursery industry.

From Oregon alone, 60 growers were represented, amounting to 10% of the total floor. It was wonderful to see so many familiar happy faces navigate from booth to booth and aisle to aisle. Over the course of two and a half days, more than 11,000 registrants walked around and interacted with the very best individuals who "speak for the trees."

Trees make everything better. They add texture, depth and character to even the most hardened of environments. It is so rewarding and fun to be a part of landscape projects that take a boring and uninteresting space and transform it into an awe-inspiring place to be.

A few years ago, I had the opportunity to work closely with architects in designing the landscape for the Rockefeller Center in New York. The design was modern and unique with topiaries and lots of beautiful and colorful flowers.

When the landscape was complete, I had the opportunity to go and visit. I sat and watched people as they interacted in this newly landscaped space. Despite the pouring rain and unfavorable conditions, people were laughing and taking pictures. I realized that not only do trees transform spaces or landscapes, they can transform people.

Research has shown that trees have a positive impact on one's mental and social well-being. In one recent study ("Psychological benefits of walking through forest areas," [mdpi.com/1660-4601/15/12/2804](https://doi.org/10.3389/fpsyg.2016.00460)), over 500 young Japanese students were asked to report on their moods after taking a 15-minute walk. Some walked in a forest setting and others in a city environment.

The test was conducted at 52 different locations. In each location and in all cases, the participants walking in a forest experienced less anxiety, hostility, fatigue, confusion or depressive symptoms than those who walked in the city environment. They were also reported to have more vigor.

Other studies have found that being around trees can improve our health, lead to less crime and even make us more generous and trusting.

I left Baltimore filled with optimism and gratitude. I am so grateful to be a part of this amazing industry. I am grateful that the things we do on a day in and day out basis not only make a difference in the landscapes of the world but also in the lives of the people who can enjoy them. I am grateful to stand with the members of the OAN and speak for the trees. ☺

Todd Nelson



Calendar

Spread the word 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 AND CPR CLASSES

The Oregon Association of Nurseries offers First Aid and Adult CPR classes so that employees have the needed certification and can render assistance if needed in the workplace. Successful completion results in certification that is good for two years. Participants are urged to register early to guarantee a spot. Registrations are only accepted up to two days before each scheduled class. Classes will be offered in English on February 15 and in Spanish on February 16 at CPR Lifeline Training Center, 9320 S.W. Barbur Blvd., Suite 175, Portland, OR 97219. Classes take place 8 a.m.-12:30 p.m. Cost is \$60. Additional classes will be offered monthly and take place either at Lifeline Training Center in Portland or at the OAN offices. For more dates, details and registration, visit www.oan.org/cpr.

JANUARY 31-FEBRUARY 2

PROGREEN EXPO

ProGreen EXPO is the only green industry conference in the Rocky Mountain Region of its kind. More than 4,000 green industry professionals gather every year to gain vital knowledge and skills to improve business, educate employees and discover the latest information for the upcoming season. The event takes place at the Colorado Convention Center, 700 14th St., downtown Denver, Colorado. For details and to register or exhibit, log on to www.progreenexpo.com.

FEBRUARY 9

NOR CAL LANDSCAPE & NURSERY SHOW

The 2023 Nor Cal Landscape & Nursery Show will take place in the San Mateo Event Center Expo Hall, 1346 Saratoga Dr., San Mateo, California. The show is a one-day collaboration between California's horticulture and landscape industries featuring more than 250 exhibits and five educational seminars. To register, log on to www.norcaltradeshow.org.

APRIL 7-8

HORTLANDIA

The Hardy Plant Society of Oregon sponsors this annual plant and art sale at The Westside Commons (formerly the Washington County Fairgrounds), N.E. 34th Ave. and Cornell Road, in Hillsboro, Oregon. Vendors from all over the Northwest will provide the latest plant introductions alongside old favorites. Handmade, one-of-a-kind garden art made from materials like metal, wood, glass, ceramic, fabric and stone will be on display throughout the event. Admission is free. For more information, log on to hardyplantsociety.org.



FEBRUARY 23-26

PORTLAND SPRING HOME & GARDEN SHOW

Just in time for spring gardening season, the Portland Spring Home & Garden Show will return to the Portland Expo Center, 2060 N. Marine Dr., Portland. Produced by the Home Building Association of Greater Portland and sponsored in part by the Oregon Association of Nurseries, the event brings together a wide variety of local vendors to provide ideas and inspiration for home, garden and outdoor living spaces. Exhibitors include remodelers, landscapers and landscape suppliers, gardeners, spa companies, tile and flooring installers, roofers, custom fence builders, mattress and bedding suppliers, furniture and home décor shops, local artisans and more. Best of all, you can pick up a copy of the "Retail Nurseries & Garden Centers Road Map" courtesy of OAN and Plant Something Oregon. For more information on show offerings, log on to www.homeshowpdx.com.

APRIL 15

HORTICULTURAL SCHOLARSHIP APPLICATIONS DUE

Do you know a high school, college or graduate student who is considering a career as a nursery or landscape professional? If so, April 15 is the last day to apply for the 20 scholarships supported by the Oregon nursery industry and offered by the Oregon Nurseries Foundation. Awards range from \$500 to \$1,500, and are sponsored by individuals and OAN chapters. Log on to www.oan.org/onf for more information, or contact OAN Director of Finance and Administration Stephanie Weihrauch at 503-582-2001 or scholarships@oan.org.

APRIL 29-30

OREGON AG FEST

Ag Fest is an annual fun-filled event where families will learn about local agriculture. The two-day event, aimed to help Oregonians better understand where their food, fiber and flora come from, is a unique learning experience.

Hands-on exhibits make learning about Oregon's vast agricultural industry educational and entertaining. The ag-stravaganza will take place on the last weekend of April at the Oregon State Fairgrounds, 2330 17th St. N.E., Salem. The cost is \$9 each for anyone 13 or older; younger kids get in free. Discounted tickets are available from www.oragfest.com and from Wilco stores.

MAY 6-7

CLACKAMAS COUNTY MASTER GARDENERS SPRING GARDEN FAIR

Nearly 100 vendors will be participating at the Spring Garden Fair, 9 a.m.-5 p.m. on Saturday and 9 a.m.-4 p.m. on Sunday at the Clackamas County Event Center in Canby. It will include free pH soil testing, new plant introductions featuring a silent auction, the Garden Fair raffle, free plant check, plant taxis where students tow your purchases for tips, and a potting station to purchase pots and plant them up with garden soil at the fair. Visit SpringGardenFair.org for all the details. ☺



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Northwest News

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



NWFCS, Farm Credit West create new association



Stockholders of Northwest Farm Credit Services (NWFCS) and Farm Credit West overwhelmingly approved a merger of their associations which took effect January 1. The new association, **AgWest Farm Credit**, will serve more than 22,000 customers throughout seven western states.

The new association will be led by past Farm Credit West President and CEO Mark Littlefield and a management team from both legacy associations.

"This is a merger of two very successful, financially strong farm credit associations across the West who have partnered together for many years," Littlefield said. "Merging allows us to bring the best of each association together to form an even more effective cooperative and offer increased value to our members."

AgWest will be headquartered in Spokane, Washington, with regional operating centers across the West. The new association will serve producers, agribusinesses and related industries in Washington, Idaho, Oregon, Montana, Alaska, Arizona and California, providing financing and insurance services.

There's a new website at www.AgWestFC.com. Log on there for more information.

GROWERS CONCERNED AS AG OVERTIME TAKES EFFECT IN OREGON

On January 1, Oregon became the newest state to require that farms pay an overtime wage to their hourly workers. A new law passed by the 2022 Oregon Legislature overrides the federal agricultural overtime exemption that's been in place for decades.

California, Washington and five other states preceded Oregon in making this change. Oregon's new law will be phased in between now and January 1, 2027. For 2023 and 2024, the overtime threshold will be 55 hours in a workweek. It will drop to 48 hours in 2025 and 2026, and then 40 hours starting in 2027.

The Oregon Association of Nurseries (OAN) opposed the legislation and pushed forward alternatives that would have harmed nurseries and their workers less.

"These laws have caused employers to cap employees' hours to eliminate overtime," OAN Executive Director Jeff Stone said. "This limits productivity during the busiest times of harvest. It also hampers the employees' ability to earn."

In Oregon' qualifying employers may apply for a tax credit for a percentage of the agriculture overtime paid throughout 2023. They will be able to submit an electronic application to the Oregon Department of Revenue (DOR) a year from now, between January 1 and January 31, 2024. To learn more about the tax credit, visit

the DOR's Employer Tax Credit for Agriculture Worker Overtime Pay webpage at tinyurl.com/ag-ot-ore. For general questions about the credit, contact DOR at ag.overtime@dor.oregon.gov.

There are some situations where an employer may be exempt from paying overtime and minimum wage. For more information, contact BOLI at ag.overtime@boli.oregon.gov.

As many predicted, both agricultural employees and employers in California report they are losing money as the industry adjusts to a state law that extends overtime pay to farmworkers, according to a recent article published by *The Bee/FresnoLand* (see tinyurl.com/ag-ot-less-pay).

The article quotes one worker who is struggling to make ends meet as his hours have been cut back from 60 hours per week to 40 hours per week. "Last year was one of the worst years that we ever had financially," said Marco Mendoza, a farmworker based in Fresno County.

The going's been rough on the employer side, too, reports Ian LeMay, president of the California Fresh Fruit Association, one of several ag industry groups which opposed the legislation. LeMay said the new overtime law has prompted growers to cut hours, reduce acreage farmed to accommodate their crew sizes, and hire more workers to complete harvests. Other growers have started turning towards automation and mechanization in the fields or have switched to less labor-intensive crops.



Advocates of amending Oregon's agriculture overtime law point out that Oregon has some of the best benefits for farm employees in the country: five days of protected sick time, a three-region state minimum wage that is nearly double the federal minimum wage of \$7.25, and other provisions.

PHOTO COURTESY
COALITION OF OREGON
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ORGANIZATIONS



Advocacy Training: Tyler Meskers (**Oregon Flowers Inc.**); Leigh Geschwill (**F & B Farms**); Darcy Ruef and Mark Bigej (**Al's Garden & Home**); Leah Navarro and Emily Eckert (**Thorn Run Partners**); Chris Poulsen (**Farallon Consulting**); Jeff Stone (OAN); Jim Westwood, Elizabeth Remley (Thorn Run Partners); Tom Brewer (**The HC Companies**); John Coulter (**Master Nursery Garden Centers**) on Zoom. Not pictured: Rod Park (**Park's Nursery**) and Chris Robinson (**Robinson Nursery**). PHOTO COURTESY OF JEFF STONE

OAN TRAINS NEW VOICES TO SPEAK UP FOR OREGON NURSERIES

Several Oregon Association of Nurseries members participated in person and virtually in the Advocacy Training session that took place Tuesday, January 3 at the OAN office. They learned the inside tips and unwritten rules to become clear, effective lobbyists and citizen activists for the nursery industry.

Members of the OAN Government Relations team — including Executive Director Jeff Stone and members of the OAN's contract lobbying team with Thorn Run Partners — trained members in how to make a strong, compelling, sympathetic and effective case for nursery-friendly policies and programs.

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Researchers may have found a better use for Christmas trees than sending them to a landfill.

PHOTO BY MIKE MAHAFFIE / FLICKR.COM

the voices that make the strongest impression are the growers themselves,” Stone said.

Three additional advocacy training opportunities will be available in 2023. Please feel free to reach out to Stone at jstone@oan.org if you are interested.

The 2023 Oregon Legislature convened on Tuesday, January 17 for a long session. Because it is an odd-numbered year, the session may last for up to 160 days.

CHRISTMAS TREES COULD BECOME RENEWABLE FUELS, RESEARCHERS SAY

Pine needles from discarded Christmas trees could be repurposed to produce renewable fuels and value-added chemicals, according to a new paper published in the *ACS Sustainable Chemistry & Engineering Journal*.



Researchers established that the chemical structure of pine needles could be broken down into a liquid product (bio-oil), which could be used in the production of sweeteners, paint, adhesives and a solid by-product (bio-char), which could be used in other industrial chemical processes.

See <https://tinyurl.com/needle-fuel> for the full story.

SHOWCASE SPACE AVAILABLE AT GARDEN SHOW

The 75th annual Portland Spring Home & Garden Show is set to take place Thursday through Sunday, February 23–26, at the Portland Expo Center (2060 N. Marine Dr., Portland, OR 97217). The show is produced by the Home Building Association of Greater Portland and sponsored in part by the Oregon Association of Nurseries.



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The Showcase Gardens are a main attraction at the Portland Spring Home & Garden Show, taking place February 23-26 at the Portland Expo Center.

PHOTO COURTESY OF THE PORTLAND SPRING HOME & GARDEN SHOW



Landscapers, landscape designers, garden creators, nurseries, plant sellers and flower shops can secure a Showcase Garden space (40' x 40'), where they can collaborate with their partners, suppliers, vendors, and wholesale and retail nurseries to create an urban-style garden for the show. The winning display, based on public vote, will receive the People's Choice Award.

For more info, contact Yvonne Lerch at

YvonneL@hbpdx.org or 503-479-2660.

The HBA was formerly known as the Homebuilders Association of Metro Portland until a recent name change. According to a statement posted online, association leaders wanted to be more inclusive of their industry, not just builders.

They also wanted to make it clear they represent all six counties around the greater Portland region that their associa-

tion covers, and not just Portland or the Metro boundaries proper.

"While the name change might not seem entirely significant at first glance, it is much more reflective of the core elements and values we hold," the HBA stated.

See www.HomeShowPDX.com for more info on the Spring Home & Garden Show.

BAILEY ANNOUNCES LEADERSHIP TRANSITION

Bailey Nurseries Chief Executive Officer Terri McEnaney will step away from the day-to-day operations to focus on strategy and the future of Bailey, the family-owned, Minnesota-based wholesale grower announced in a press release.

"It has been the honor of my lifetime to serve in this role," McEnaney said. ➤➤

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Shane Brockshus (left) and Terri McEnaney

“The legacy of humility, long-term strategic thinking, active industry participation, giving back to community, innovation, and doing the right thing will guide my time and commitment.”

In other changes, Shane Brockshus was named chief operating officer and is now responsible for the areas of production, sales, marketing, brands, product

development and human resources. Prior to this role, Brockshus was director of West Coast operations for Bailey and was based in Oregon.

“I am honored and humbled by the opportunity to play a part in leading this nursery,” Brockshus said. “As Bailey evolves and grows, I look forward to working with this team to bring continued improvement and success for Bailey, as well as our customers, employees and communities.”

“Shane is an exceptionally strong leader who cares about the organization, our people, our plants and our customers. He is organized, thoughtful and welcoming, and for those reasons and more we congratulate him on leading the operations of the company,” McEnaney said.

McEnaney and Brockshus will work at Bailey’s main office in St. Paul, Minnesota.

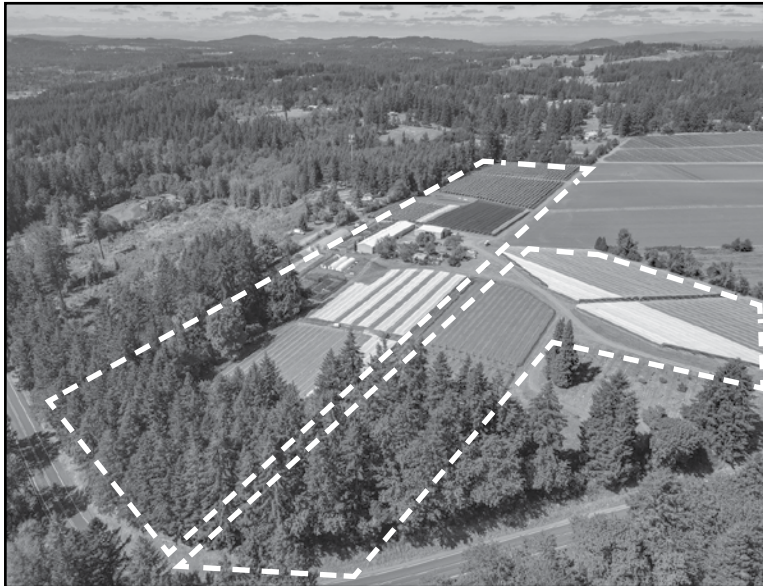
OREGON RETAILER BECOMES 500TH MASTER NURSERY® GARDEN CENTERS MEMBER

Member-owned cooperative Master Nursery Garden Centers (MNGC) announced the addition of its 500th member location, OAN members **Laurel Bay Gardens** in Florence, Oregon.

“We are all very excited to reach this milestone and will continue to work hard to help Master Nursery members save and earn even more in 2023,” said CEO Jeff Lafferty. “Congratulations to Laurel Bay and welcome aboard.”

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In Memoriam

BRIAN TAYLOR



The Oregon Association of Nurseries is saddened to report the passing of Brian Taylor, former marketing manager at **Woodburn Nursery and Azaleas** in Woodburn, Oregon. He passed away December 26, 2022.

Brian was born in Scottsdale, Arizona, on November 12, 1954. His father was in the U.S. Air Force, and the family lived in many different places including Spain.

Following graduation from OSU in 1979, Brian worked various sales jobs before earning an MBA from Marylhurst University. Klupenger's Nursery was Brian's next stop before working for Woodburn Nursery and Azaleas. He also served on OAN's Marketing Committee for many years



and chaired the committee from 2008–2010.

Brian was very personable and had a great attitude for working with plants. He photographed and compiled catalogues, collected debts and took time to visit smaller nurseries to meet the folks that bought their product, as well as preparing and designing the Farwest Show booth and promoting the nursery industry. He was also instrumental in adding the Costco plant account to Woodburn Nursery.

In 1981, Brian married Claudia Harper; he is survived by two sons, Justin and Harper. He was a great dad, husband and friend and he will be very missed.

A Celebration of Life service will be held from 1–4 p.m. Sunday, February 5, 2023 at the Monarch Hotel, 12566 SE 93rd Ave. S.E., Clackamas, Oregon.



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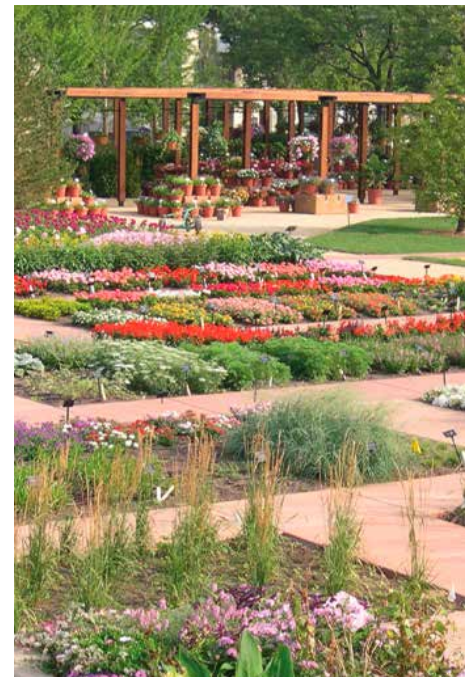
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and green goods vendors to help members earn volume rebates. When attained, members receive payouts from profit-sharing and rebate programs.

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Each summer, more than 145,000 plants go into The Gardens at Ball representing over 1,800 different varieties from over 200 genera and 80 breeding companies. Planting begins in spring and is timed for peak color during the annual Ball Seed Customer Days event the last Friday in July. ©

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Perpetuating the popularity of pollinator plants



Linaria is an excellent container filler or border flower that attracts pollinators.

PHOTO BY ELAINE JERAULD

WE ARE NOW into the second month of a new year, and a reflection into the past year reminds us just how unpredictable the weather is — and how much the garden business depends upon the weather.

Looking back at 2022, there were many weather extremes. Parts of western Oregon had snow in March, then cool weather and record rain in the spring months. Then there was summer, with a long period of hot weather and a prolonged period of no rain. The year ended with winter temperatures dipping into the low 20s and even the teens.

These weather extremes certainly took a toll on many plants. The low temperatures in December will test the hardiness of many plants. If a plant comes through all the extremes of 2022 and visually looks good, it is probably a truly "hardy" plant!

It is certainly no secret that prices of almost everything have risen. Just go to the grocery store to experience sticker

shock. The garden center is no exception. Consumers will often incur substantial price increases on both hard and green goods. Such price increases will offer challenges to garden centers because most customers do not actually need to buy plants. Doing so is a luxury. Vegetable plants could be the exception.

Pollinators prove popular

Native plants and pollinator plants are plant trends that have been gaining momentum over the past few years and they do not appear to be waning. Now's the time for garden centers to jump onboard and expand the categories of these types of plants. Perhaps they can offer more plants that are both native *and* pollinator — that would be like giving customers a double bonus!

Most gardeners want plants to offer some beauty. This could be in the flowers, foliage, stems, seed pods or other plant features. On a deeper level, gardeners tend



MIKE DARCY

Head "plant nerd," longtime speaker, host of gardening shows on radio and TV, and author of the In the Garden email newsletter. You can reach Mike or subscribe to his newsletter at itgmikedarcy@comcast.net.

to have a caring relationship with plants. They want to do what they perceive as the right thing for the environment. Growing a pollinator garden sends a signal that it is the right thing to do, and it has many benefits for the gardener and the environment.

The challenge is that most gardeners do not know how to plant and care for a pollinator garden. This provides an excellent opportunity for the garden center to meet the customer's needs. Garden staffs that make learning about pollinator gardens an easy, fun exercise will encourage gardeners and reap the rewards.

Container craze continues

Sales of hanging baskets and container gardening should continue to show strong increases. In many instances, the homeowner or gardener has no other options for gardening other than a deck or patio.

Offering gardeners the idea of a container with plants for pollinators will probably be a novel idea. Instead of a basket or pot with a single species such as a fuchsia or begonia, offer the idea of multiple plants to attract a wide variety of insects, butterflies and birds.

For a garden center to offer a container of pollinator plants, several things should be considered. There should be multiple options available, including sun and sun/shade requirements. Customers like to have a clear and concise picture in their mind of what they need to do. This is where a local garden center can lead



the way by offering different options and specific plants that can be adapted to any location and choice.

Signage is of prime importance. Having some containers already planted would be ideal so that the customer can actually see what the result will look like.

Recommendations matter

Many customers do not know how to arrange plants and need help. What plants can go in the center? What plants will trail over the rim of the pot? Which plants should be planted around the center? Don't forget about flower color, because many gardeners in a small space area may have a color theme. Generally, plants selected for containers should be those that will bloom throughout the summer.

Also, don't forget about foliage plants. Often foliage plants can be easily mixed into a container with blooming plants and

Attractive to butterflies, bees and other beneficial insects, *Caryopteris* is a compact, deciduous shrub with fragrant, deep blue-purple flowers in late summer and early fall.

PHOTO BY ELAINE JERAULD



will provide additional color. Vegetables and herbs can also be used. Then not only is the gardener reaping color from the container, but also food.

Basil is a superb container plant and when left to bloom, it is a honeybee magnet. The choices are limitless for gardeners that have fun trying new ideas.

The pollinator garden, whether in the ground or in a container, offers many sales possibilities for the garden center. There are tie-in sales opportunities including pottery, soil, fertilizer in addition to the plants themselves.

Pollinator container gardens could easily be an excellent feature display in the spring months. Gardeners are always searching for new ideas and this could very easily become one that will actually benefit garden centers, gardeners, pollinators and the planet. It is a winning proposition for everyone! ☺



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MEMBER PROFILE

Oregon Flowers Inc.

BY EMILY LINDBLOM



FOUNDED: 1985

OWNERS

Martin Meskers, president and CEO; Helene Meskers, chief financial officer; Tyler Meskers, vice president

KNOWN FOR

Cut lilies and tulips

PEOPLE

30 employees

CONTACT

**20727 Pacific Highway 99 East
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Martin and Helene Meskers

THE Meskers family comes from generations of bulb producers in Holland. Since Martin Meskers emigrated from Holland to Oregon, he has grown a wholesale cut flower business

called **Oregon Flowers Inc.** The business ships approximately 6.5 million stems per year to nearly all 50 states, mostly to the West Coast and the Northeast.

Company president Martin Meskers and his wife, Helene Meskers, founded the family business in Aurora, Oregon. Their son, Tyler Meskers, continues their vision today as vice president.

Martin Meskers said he enjoys working with cut flowers.

"It's an exciting business because it's a fresh product and it doesn't last long, so we cut it at the right stage, ship it out right away, and customers are ready for it," he said. "It's fun and it's been good to us."

About 50% of the business' cut flowers are sold wholesale across the country. The other half go to grocery stores in the

Northwest, including New Seasons Market and Zupan's Markets in the Portland area, and Town & Country Markets and Metropolitan Market in Seattle.

The business' bread and butter is lily production, 365 days of the year. The team forecasts what sales will be like a year and a half in advance, then imports the bulbs. They plant the bulbs in the greenhouse using recycled, steam-sterilized soil and harvest the flowers three to four months later.

Oregon Flowers also grows tulips in the greenhouse from January to May, and mini calla lilies from May to October. In addition, 80 acres of perennials are planted outside with a mix of snowberries, hydrangeas, rosehips and more. The Meskers match their greenhouse-produced flowers with the seasonal perennials.

Since the bulb is forced to flower in such a short time period, all the bulb's energy is used up and the greenhouse team can't reuse them. Styles and trends change too, so the business consistently buys new bulbs from farmers.

Since Oregon Flowers Inc. grows flowers in a greenhouse year-round, ➤

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MEMBER PROFILE: OREGON FLOWERS INC.

Asiatic, Oriental, LA and OT hybrid varieties of lilies are grown in the greenhouses at Oregon Flowers Inc. in Aurora, Oregon. PHOTOS COURTESY OF OREGON FLOWERS INC.



they need a steady supply of bulbs. Tyler Meskers does most of the bulb buying. He orders approximately 5.5 million bulbs per year, about 70% of which come from family members, friends and other business partners in Holland. About 30% of the bulbs come from Chile and New Zealand during Holland's off-season.

"We utilize seasonal differences, so we have a fresh bulb stock, and we only have to store bulbs for six months of the year," Tyler said.

"The bulb industry is run by Dutch people," Martin Meskers said, adding that even in New Zealand, he'll be working with a Dutch person living there.

"That's the advantage of us being from Holland," he said. Some of his cousins and former school colleagues work in growing or exporting bulbs there. "We get to have close contact with all of them."

Tyler's wife, Megan Meskers, helps with administrative work and payroll, while his sister, Jacinth Reese, works in sales remotely from Boise, Idaho.

About half of Oregon Flowers' 30 employees have been involved with the business for at least 15 years.

"Loyalty is a big thing for us," Tyler Meskers said. "It's about quality, consistency and reliability."

How it began

Martin Meskers was born into the flower industry. He grew up on a farm

growing tulips, lilies, hyacinths and iris with his parents, uncles and grandfather. When he turned 21 in 1979, he got an offer to work for a bulb company in Sandy, Oregon, so he made the move.

Helene joined him in Oregon and the two got married in Portland. Together, they saw the opportunity to import bulbs, azalea cuttings and other plants to produce cut flowers. While Martin was still working in Sandy, he started his own business on the side in 1982 and then went full time the year after.

"I saw the opportunity for growing lilies for cut flowers because it wasn't being done here at that time," Martin said. He started by getting bulbs from his dad in Holland and brought new varieties that hadn't been seen in the U.S.

He and Helene moved to Aurora around 1985 and started with a small plastic hoop greenhouse to grow and sell cut flowers in the Portland flower market. They soon realized the demand was high and started selling wholesale around the West Coast, then across the country. Eventually, Oregon Flowers Inc. grew to 10 acres of glass Dutch greenhouses. Their son, Tyler, was born in the U.S. He said he was practically raised in the greenhouse.

"There are baby pictures of me in the greenhouse, with my mom and dad hard at work," Tyler said. "Everything that came in went right back into the greenhouse to continue the work."

Tyler said his parents used a long-term strategy to grow their market, slowly expanding their production into the fall and then setting up heating and lights through the winter to develop the year-round business model.

About six years ago, Martin and Helene moved to Canby, Oregon, and Tyler and his wife Megan began overseeing the day-to-day farm operations.

"It's nice to hand it over and see the enthusiasm the next generation has," Martin said. "After doing it for 35 years or so, it's nice to try to take it a little easier, but it's been hard to work through COVID and other challenges."

Martin said there is tough competition with imports. More than 80% of cut flowers sold in the U.S. are imported from South America, where there are fewer regulations and the labor costs are lower.

"We have the advantage of being close to the market, but labor costs are higher," Martin said. "Oregon is not an easy state to do business in, and it gets more challenging all the time. But we'll make it work. We're committed and we keep plugging away."

One way to compete, Martin said, is to share his story of an immigrant family business growing flowers for local markets.

"A lot of people like that story," Martin said. "They like that it's locally grown, and they get a fresher product that lasts longer."



Aerial and ground views of Oregon Flowers Inc. Oregon Flowers grows bulbs year round in greenhouses. The business also grows 80 acres of seasonal perennials outside. The Willamette loam soil grows quality French, Dutch Single, Dutch Novelty and Dutch Parrot Tulips. Oregon Flowers sells tulips and other cut flower bouquets to grocery stores in the Northwest.

PHOTOS COURTESY OF OREGON FLOWERS INC.

We do what's right for our employees and customers and make it work."

Tyler said the family is always working on improving the business together.

"There are always things thrown at you in business, so we keep up the positivity as well," Tyler said. "It's easy to get down and frustrated with things. It's never easy as a family business, but we try to do well."

Tyler said the business itself is doing incredibly well because of the company culture, great people and beautiful product.

Outside challenges, including supply chain issues and inflation, have grown since the coronavirus pandemic began three years ago. Bulbs ship from Holland to the East Coast before making their way to Oregon, so if there are any delays along the way, that lost time trickles down into the flower production.

"We roll with the punches and



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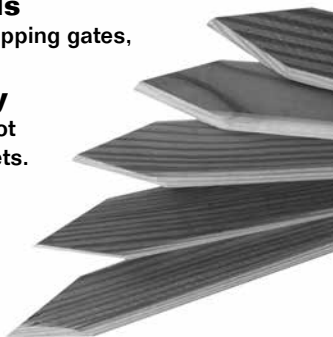
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MEMBER PROFILE: OREGON FLOWERS INC.

Martin and son Tyler Meskers of Oregon Flowers Inc. in Aurora, Oregon.

PHOTO COURTESY OF OREGON FLOWERS INC.



try to be flexible and understanding and get through those challenges,” Tyler said. “I hope the business is viable for my kids if they want to do it. But looking around the country, I see there are more people deciding not to produce cut flowers domestically. I am hopeful the same opportunity will come to my children, as it did for me.”

Martin said in all his years in the industry, there are always challenges, and he doesn’t know what the next one will be, but the family will take it head on.

“This country has been very good to us, my family,” Martin said. “The nursery industry has been very good to us, and we appreciate it.” He added they try to give back to the industry by being part of different associations. Tyler is on the board of the Oregon Association of Nurseries.

“We hope that we will be able to continue this type of business the way we’re doing it now with minor adjustments,” Martin said. “There is definitely demand for our product. With good, consistent quality and availability, we will be able to meet that demand and supply our customers primarily here on the West Coast and all over the country.” ☺

Emily Lindblom is an Oregon-based freelance journalist covering business, environmental and agricultural news. She has a background in community reporting and a master’s degree in multimedia journalism. Visit her website at emilylindblom.com or reach her at emily@emilylindblom.com.



Low-water lawn alternatives

Miniclover, ecolawn and a variety of groundcovers grow landscapes that are green and drought tolerant

BY KYM POKORNY

A backyard of miniclover is an alluring alternative for homeowners who want a landscape that's green, low growing and drought tolerant, either because water is expensive or because their municipality restricts water usage.

PHOTO COURTESY OF OUTSIDEPRIDE

EXPANSIVE LAWNS in Europe and the rising popularity of golf in the late 1900s launched America's obsession with a perfect plot of grass. The invention of the rotary mower and the development of climate-adapted grass varieties made a landscape of turfgrass possible for the middle class.

As time went by, homeowners relegated the vegetables and herbs typically grown in the front of the house to the backyard, and monocultures of grass were installed in the front. A healthy green lawn — the bigger the better — became a status symbol.

That sensibility lingers. More than 40 million acres are dedicated to lawn in the United States, according to a study published in the *Journal of Environmental Management*. Other sources put the amount even higher. But as climate change worsens and environmental concerns increase, people are beginning to look for drought-tolerant, lower-maintenance alternatives. A growing awareness of the plight of pollinators

also pushes the trend.

"Yes, there's been a surge of interest in the desire to have something other than lawn," said Amy Whitworth, an eco-minded landscape designer and owner of Plan-it Earth Design in Portland.

Whitworth is well versed in lawn replacements. "It's actually been coming up for the last 10 years or so," she said. "But the heat bomb was a game changer for everybody. It opened everyone's eyes and now drought tolerance is on the top of everyone's wish list."

In Whitworth's line of work, she finds that many clients don't want lawn at all; others want alternatives that look like lawn. There's something for everyone, and the nursery industry is on it.

Mighty miniclover

Outsidepride in Independence, Oregon, is bullish on miniclover (*Trifolium repens*), owner Troy Hake said. He's a big fan of the tiny-but-mighty plant. People like it, too. Sales were up 67% in 2022 compared to 2021.



LAWN ALTERNATIVES

Below, left: Miniclover. PHOTO COURTESY OF OUTSIDEPRIDE

Top right: Size comparison of miniclover and clover. PHOTO COURTESY OF OUTSIDEPRIDE

Bottom right: Ecolawn grass blend invented at Oregon State University blooms all spring, needs very little water and no mowing in the summer. PHOTO COURTESY OF OREGON STATE UNIVERSITY

“[Sales] went very well,” he said. “I was actually quite surprised, but miniclover really is amazing and people are picking up on that. I would say in the last five or so years we get more emails from customers wanting a lawn alternative primarily because water is expensive, and some municipalities are restricting it.”

For those wanting a landscape that’s green, low growing and drought tolerant, miniclover accomplishes that. It looks like lawn, but that’s where the similarities end and miniclover gets the edge. It only needs to be mown about once a month, depending on the eventual height desired for this 6-inch-tall plant. Water needs are minimal

to keep its lawnlike appearance.

“Personally, I prefer to kill the clover in my yard,” said Hake, who sells bucket-loads of grass seed but admits to growing miniclover at home. “I’m a grass seed guy but I’ve grown to like clover. It grows easy, sprouts easy, is easy to maintain and it uses less water. It’s ideal for so many people.”

Unlike regular lawn, microclover reduces the need for fertilizer, which saves money and the planet. All clovers, including microclover, fix nitrogen — or pull it from the atmosphere and transfer it to the soil so it can feed the microbes that feed plants.

“You can’t ask for more than that, except we’d like it a little shorter,” said

Hake, who is working with Smith Seed Services to develop a new microclover. “That’s what we’re trying for. Something you wouldn’t have to mow at all. If we could breed miniclover that remains 2–3 inches tall and stops, sales would increase exponentially.”

Eclectic ecolawn

Along the same vein is the ecolawn mix developed in 1985 by Oregon State University’s Tom Cook, a retired professor and turf specialist in the College of Agricultural Sciences. Since his mixture hit the market, it’s been customized by companies around the country. The



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LAWN ALTERNATIVES

Top row, left to right: *Thymus pseudolanuginosus*, *Achillea* 'Brass Buttons'.

Bottom row, left to right: *Cotula* 'Tiffindell Gold', *Leptinella purnpusilla*.

PHOTOS COURTESY OF BLOOMING NURSERY



first ecolawn was made up of dwarf perennial ryegrass and hard fescue, non-competitive grasses that go dormant in summer without regular watering. The addition of yarrow and clover, which stay green with very little water, helps keep the lawn looking green when the grasses go brown. Some mixes add flowering broadleaved plants such as miniclover, English daisy, Roman chamomile and *Alyssum*.

Joni Shaffer-Elteto, co-owner of **Native Plantscapes NW** in Salem, Oregon, uses ecolawn she sources at Pro Time Lawn Seed in Portland for her designs and installations.

"I started noticing an uptick last summer," Shaffer-Elteto said. "It went from people talking about lawn alternatives to having projects that actually use it. There's a big change in consumer consciousness of climate change with the onset of Covid. When people were home, many were gar-

dening and thinking about it. And also the fires. It was a huge awakening for people. Things are not as they used to be."

For those homeowners looking for something that's more habitat friendly, Shaffer-Elteto suggests ecolawn as an alternative because of its attractiveness to pollinators when in bloom. People are still looking for a patch of something lawnlike for children and pets. Ecolawn also fits that bill.

"What does that lawn really need to do," said Shaffer-Elteto, who has five projects going featuring ecolawn. "People don't want to pay for an irrigation system. They want to stop their chemical inputs but still want their lawn to look nice. Ecolawn saves money, saves maintenance, and is a place for dogs to go the bathroom. It fixes nitrogen and takes much less water. It's pretty self-sustaining."

Great groundcovers

At **Little Prince of Oregon Nursery**, groundcovers that serve as lawn have been gaining in popularity for the last 20 years. Sales are in the 20–30% range of inventory, according to Mark Leichty, director of business development. Leichty said Little Prince sells thousands of blue star creeper (*Isotoma fluviatillis*), Scotch (*Sagina subulata* 'Aurea') and Irish moss (*S. subulata*), and *Vinca minor*.

Other popular spreaders include elfin thyme (*Thymus serpyllum*), which Leichty describes as a beautiful and somewhat drought-tolerant plant. However, unlike lawn, which has a root system that doesn't die when it goes dormant in summer, elfin thyme needs some water, or it will look bad and may die out.

Grace Dinsdale, owner of **Blooming Nursery** in Cornelius, Oregon, hasn't noticed the uptick that Little Prince has, but said she saw a surge in demand after a newspaper article last summer. Even though demand has fallen off, she's on board. At home, Dinsdale planted a 500-by-14-foot checkerboard pattern in a variety of groundcovers. Conditions are all over the map — light shade, dark shade, hot morning sun, hot afternoon sun and some areas that need to be driven on.

"It looks green," she said. "It looks fantastic, even though it doesn't look like I expected. I've moved stuff around. White creeping thyme was too slow. On the other hand, *Pratia* 'Celestial Spice' does better and better. It moves itself around and has delightful little blue flowers. It takes traffic, is drought tolerant and will grow in shade."

As her planting fills in, it's more mottled than checkerboard, and she loves it. Some plants worked, others didn't. Dinsdale recommends that people try an assortment of spreaders on their site before planting the whole lawn to groundcovers. It can get expensive and discouraging.

Leptinella perpusilla, one groundcover that's proven particularly successful, had been retired by Dinsdale until she saw how well it did in her installation. It takes more traffic than the more popular thymes.



Vinca minor 'Bowles' (lesser periwinkle) is a vigorous, evergreen mat-forming perennial with glossy dark green leaves and large violet-blue flowers from mid-spring to early summer.

PHOTO COURTESY OF LITTLE PRINCE OF OREGON

Exceptions include lemon (*T. × citriodorus*) and lime thyme (*T. × citriodorus* 'Lime') and 'Bressingham' thyme. Woolly thyme (*T. pseudolanuginosus*), on the other hand, was not as successful. It tends to get overgrown in moist seasons, gets moldy underneath, collapses and dies.

One of the toughest, *Achillea* 'Brass Buttons', can even be driven on, though not every day. Other resilient plants include *Cotula* 'Tiffendell Gold', an excellent, flat groundcover with showy yellow flowers that wave in the air. This *Cotula* even grows in fairly deep shade. Dinsdale said she knows someone who put it in their yard eight or nine years ago. They mow it once a year after it blooms and give it no water.

But no matter what groundcover they buy, customers need to realize new installations of lawn alternatives will >>



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LAWN ALTERNATIVES

need to be watered the first two years until fully established, Dinsdale pointed out. They also must be weeded until it fills in, which can take several years depending on the plant.

Inventory to meet demand

Whitworth of Plan-It Earth Design gives high marks to native drooping sedge (*Carex pendula*), foothill sedge (*C. tumulicola*) and a floppy fescue she gets from Pro-Time that she describes as nice and soft and mounding. She adds *C. nigra* and dwarf mondo grass (*Ophiopogon japonicus*) to her list of go-to lawn alternatives. For smaller areas, she recommends dwarf *Acorus* (*A. gramineus* 'Minimus Aureus'), a tiny plant that's not a big spreader but makes a nice, solid mat and needs only occasional irrigation.

Also on Whitworth's list of lawn alternatives is autumn moor grass (*Sesleria autumnalis*), an evergreen, shortish ground-cover for sun. You wouldn't say it looks like a lawn, she said, but it makes a nice, green swatch. For a truly no-mow choice in sun, red creeping thyme (*T. praecox* 'Coccineus') is a no-brainer. For the coolest low spreaders for shade, she recommends alpine water fern (*Blechnum penna-marina*), a short, flat fern, and evergreen maidenhair fern, a beautiful native. Both need water only very occasionally.

Even with all the attention on lawn alternatives, Dinsdale of Blooming Nursery sees room for growth. She keeps a deep inventory of groundcovers because she'd like to see the trend grow.

"There's not as much demand as I think there should be," Dinsdale said. "Most people need more information, and we need to make the right material. It will take more installations to get people on board. It takes some work to figure out what's best. It's like electric cars — slow to catch on at first but then they take off." ☺

Kym Pokorny is a garden writer with more than 20 years' experience writing for The Oregonian (Portland, Oregon) and other publications. She is currently a communications specialist with Oregon State University Extension Service.

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Stretched to the limit

Extreme weather wreaks havoc on greenhouse poly film

BY MITCH LIES

Jeremy Dewar rolls back poly film from a hoop house at North American Plants in McMinnville to show the effect of the 2020 heat dome on relatively new poly film. **"The plastic got so hot it was ripping apart,"** Dewar said.

PHOTOS BY MITCH LIES

WITH 15 ACRES of greenhouses under his management, Jeremy Dewar at **North American Plants** in McMinnville, Oregon, replaces polyethylene (poly) film on a recurring basis. Lately, however, he is replacing it at a higher rate than usual.

Like other greenhouse operations in Oregon, the greenhouses at North American Plants have been battered by extreme weather events over the past three years.

Between the ice storm of 2021 and the heat dome of 2020, where temperatures reached 115 degrees in parts of the Willamette Valley, poly film greenhouses in Oregon have taken a beating.

The heat dome, particularly, was damaging at North American Plants, said Dewar, maintenance manager at the micropropagation nursery.

"Right where the fasteners are, where the plastic touches the metal, the plastic got so hot it was ripping apart," Dewar said. "And a lot of it was only about a year, year-and-a-half old at the time. That is not natural for plastic. Maybe for

really old plastic, but not for new plastic."

Dewar added that the nursery's greenhouses weathered the ice storm that brought a foot of ice to some parts of the valley in February of 2021 without incident. And, he said, ice and snow typically don't cause problems at the nursery.

"Since we put air between our plastic, it provides insulation that keeps our greenhouses warmer, and when the ice and rain hit, that helps it slide off instead of getting stuck in the curves and arches. Also, our fasteners are pretty flush with the top of the plastic, so it shoots off pretty well," Dewar said.

"It's just the heat that seems to be the biggest issue," he said. "Our summers are getting to be more like California summers, and it is putting extra stress on the plastic."

UV protection

Extreme heat, according to Michelle Moore, CEO of **Adapt8**, can break down





the ultraviolet (UV) layer in poly film, causing it to crack and sag, and lowering the plastic's life expectancy.

"The UV coat on film that protects it from sun degradation can be impacted by not just the direct rays of the sun, but also the heat, because it can chemically tie up the UV," Moore said.

"The sagging caused by the heat would make it more susceptible to other damage as well. So, if there is a snow after that, you've already got the stretch going," she said.

Poly film is made to withstand ice and snow, Moore said, but as it stretches, ice and snow tend to be disproportionately distributed on a greenhouse, which can stress greenhouse piping to the point of collapse.

Multiple greenhouses were lost in the ice storm of 2021, Moore said. "And in 2008, there were \$84 million of greenhouses

that collapsed in that snowstorm. That is not because the plastic failed. It stretched and held. But the frame couldn't handle the disproportional weight."

Heating greenhouses can mitigate the effects of snow and ice on poly film and help prevent it from accumulating on plastic, according to Melanie Miller-Gonzalez, president of **OBC Northwest**, which manufactures greenhouses in Canby, Oregon.

Growers also can push ice and snow off greenhouses with a broom or other implement to ease the pressure on greenhouse piping.

"You can manually push it off," Miller-Gonzalez said. "But sometimes, there might not be enough manpower at a nursery, and if we get a big snow event, a grower might have to make a decision to cut through the poly film to save the pipe structure of the greenhouse, because all

that weight will demolish a greenhouse."

In general, Dewar said North American Plants likes to get four years out of the 6-millimeter poly film it installs on its greenhouses, an expectation in line with the industry standard, according to Miller-Gonzalez.

"If it is applied correctly, the 6-mil does have a four-year expected life span if it is used as a double-layer material with an inflation fan that creates an air layer in between for insulation," Miller-Gonzalez said.

This past year, however, the nursery was replacing a lot of three-year-old poly film that was damaged in the heat dome of 2020. "We actually are replacing the plastic on a ton of houses," Dewar said.

In addition to the cost of purchasing the poly film, Dewar said the time and expense involved in installing it can be substantial.

"Installing is not easy," he said.

Previous page: North American Plants in McMinnville heats its greenhouses and uses 6-millimeter double layer poly film with air added between the layers.

PHOTO COURTESY OF NORTH AMERICAN PLANTS

“We’ve come up with a system of our own that makes it a little easier, but it is still a lot of work, and I’m paying four guys for three hours just to get the plastic off and put it back on. And when you are doing ten, 15 houses, that can add up.”

Other steps

While there is little a grower can do to preserve poly film in the face of 110-degree heat, there are steps growers can take to extend the life of their film, according to Miller-Gonzalez, including avoiding using certain substances in greenhouses.

“There are a lot of substances you shouldn’t be using in your greenhouse,” Miller-Gonzalez said, “and I’m not sure all growers are aware of what is actually deleterious to the poly’s longevity.”

According to a brochure from Berry Plastics, chlorinating solutions or house-

hold bleaches should be avoided, as well as copper sulfate, sulfur and certain other crop protection products. “Herbicides, insecticides, fungicides and fumigants commonly used in greenhouses may affect some greenhouse films and cause them to resist UV sunlight for a shorter time,” the brochure states. “Try to avoid direct contact with the film.”

“It can break down the poly,” Miller-Gonzalez said. “You can have a 6-millimeter, four-year poly that doesn’t even last a year.”

Opting for a 6-millimeter or even 8-millimeter poly film, rather than a 3- or 4-millimeter film, also can help a grower get more out of plastic, Miller-Gonzalez said. The price difference between a 4-millimeter poly film and a 6-millimeter poly film can be substantial, typically around 30%, Miller-Gonzalez said, but a grower often can get twice the longevity out of a

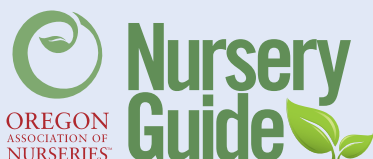
6-millimeter poly film.

Miller-Gonzalez added that greenhouse poly film comes in many thicknesses, with 3, 4, 5, 6 and 8 millimeter being the most common options, and 4 and 6 millimeter being the predominate thicknesses used in the industry. Also, she said films are available in clear, white, white/black and black.

Going with a lower-cost, thinner film, such as 4-millimeter poly film, can be a viable option in certain situations, Miller-Gonzalez said. “It depends on the exterior environmental conditions, as well as interior environmental conditions,” she said. “You might get four years out of 4-mil poly film, but typically it is one to two years.”

“If a grower has the means, a 6-mil product in double layer that is properly inflated with an inflation fan is the way to go,” Miller-Gonzalez added. ➤

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STRETCHED TO THE LIMIT

Clear plastic films last an average of one year and work well for germinating seeds and for the start of plant growth, allowing maximum light and heat transmission.

PHOTO BY LISA NORWOOD

“You will get a lot more life out of your film.”

There are also different quality 6-milimeter films, according to Dewar, who recently decided to go to a higher grade in hopes of getting more out of it.

“It is still the same company that we have been using, but we are using a different line of theirs,” he said. “It costs a little more, but we are hoping to get a little longer life out of it.”

Double-walled material

Solexx, a double-walled insulated material with a ten-year warranty manufactured by Adapt8, is another option for greenhouse covering. While two to four times the cost of poly film, Adapt8 CEO Moore said that in certain situations, the material can be worth the extra cost.

“If you are a grower who is growing



nursery stock and just want a frost cover and aren't adding any heat, film can make a lot of sense, especially if you are getting four years out of it,” Moore said. “Where it really makes a difference is where somebody is growing a high-value crop and adding heat.”

The material's more substantial structure can provide better protection for plants in extreme weather events, she said. And it can save on heating costs.

“It used to be natural gas was \$2 a thermal unit,” Moore said. “It is \$8 right now, and it is going up to \$10. So, the cost of heating has gone up substantially.”

Moore noted that rebates available from Energy Trust of Oregon also can significantly lower the cost of Solexx. ©

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

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Throttling back the burn

Efficiency improvements can help nurseries mitigate natural gas costs

BY CURT KIPP

Little Prince of Oregon Nursery in Aurora, Oregon has harnessed savings by installing efficient root zone heating tubes, high efficiency blowers and high efficiency boilers in several of its greenhouses.

PHOTO BY CURT KIPP

WHETHER YOU'RE TALKING annuals, perennials, houseplants, veggie starts or other tender plants, it takes a variety of investments to get greenhouse-grown plants out the door and delivered to paying customers.

Property expenses, labor, pots, other supplies, plant material, taxes and fees, and finally, freight are among the costs incurred before the investment delivers a return.

But one of the biggest costs is energy, and it's significant. It contributes to the difficulties nurseries have staying in the black.

"We are firm believers that small consistent price increases are necessary to run a nursery profitably," said Mark Leichty, business development manager for **Little Prince of Oregon Nursery**, a greenhouse grower based in Aurora, Oregon.

But the last few years, the increases have been steeper out of necessity, due to rising costs.

Heating costs contribute. According to

Energy Trust of Oregon, which manages energy efficiency incentive programs, some 75% of the energy cost in a typical greenhouse is tied up in heating. Transportation and electricity make up the rest.

This past fall, greenhouse growers in Oregon, Washington and elsewhere no doubt noticed when their natural gas costs went up. The Oregon Public Utility Commission approved industrial and residential rate increases for both NW Natural and Cascade Natural Gas, which together serve the bulk of customers in the state. The hikes were allowed because both gas and non-gas costs have gone up.

"The monthly bill for the average commercial customer in Oregon will increase by about \$56, or around 23%," stated Stefanie Week, a spokesperson for NW Natural, in an email. "Those figures are for the average commercial customer in Oregon that uses an average of 237 therms per month. Rates for Washington commercial customers are similar — those



customers will see an increase in monthly bills of about \$54, using an average of 242 therms per month.”

Week was quick to point out that natural gas prices in the area are still less than they were 15 years ago, but nonetheless, it's an increase.

Residential customers benefit from a delayed payment program, whereby some of the rate burden is shifted to warmer months when their need for gas is less. Commercial customers such as greenhouses don't have this benefit, however — and winter is when they burn the most gas to heat production spaces.

All this is to say that if greenhouses want to decrease their energy costs, looking at heating efficiency measures — and the available incentives to help pay for them — is a good place to start.

Cash for efficiency

Energy Trust of Oregon provides cash incentives for consumers and businesses to make energy efficiency improvements. The programs that are available to nurseries and greenhouses can be found at <https://www.energytrust.org/incentives/agriculture-greenhouse-upgrades/>. Interested growers can visit the website and find vendors or dealers for energy-saving equipment. These trade allies are generally well versed in how the program works and can help customers through it.

“We have a trade ally network, and we have a directory on our website that people can use to connect with people if they have that need,” said Susan Jowaiszas, who serves as marketing lead for the trust.

Those unsure of where to begin or what to pursue can contact Energy Trust of Oregon at 1-866-202-0576 or email production@energytrust.org to start the process of exploring the possibilities.

“We have folks who are really experienced working with nurseries and farmers, and everyone in that agricultural space,” Jowaiszas said. “We have this outreach crew that can go out and talk to customers about the program and the breadth of it.”

Energy Trust entered into a program management contract with Energy 350

Root zone heating tubes (left) are easy to install. They plug right into piping and can be custom made to fit the area to be heated. Meanwhile, high efficiency condensing heat units nowadays have efficiency in the 90%-plus range.

PHOTOS BY CURT KIPP



Inc., Portland, Ore., to deliver energy efficiency services for industrial and agricultural utility customers in Energy Trust's service area in Oregon. The point of contact for the nursery sector is Whitney Rideout (whitney@skygardesdesign.com or 503-807-0398).

The Energy Trust programs are funded by ratepayers. In the late 1990s, the Oregon Legislature created a requirement that electric utilities collect a 3% “public purpose” charge from ratepayers and dedicate the money to efficiency improvements. Natural gas utilities were later added to this requirement, and today it serves customers of NW Natural, Cascade Natural Gas, Portland General Electric, Pacific Power and Avista Utilities.

Energy Trust of Oregon, as a non-profit, oversees this efficiency program on behalf of the Oregon Public Utilities Commission, and both ratepayers and the utilities themselves benefit. A therm or kilowatt saved is one the utility can sell to someone else, without the need to find or develop new sources.

“When customers save energy, that slows the growth of demand for energy,” Jowaiszas said. “And so that takes that much load off of the system, so that the utilities then don't have to build out new gas lines or build new power plants at the same rate. The most cost-effective resource is energy efficiency, and that's behind what Energy Trust is all about.”

Reducing the heating bill

There are a variety of improvements greenhouse operators can consider for improving heat efficiency. They can retrofit the greenhouse (or hoop house) with new covering, install new endwalls and put in thermal curtains. They can tune up an existing boiler, insulate the pipes or upgrade to a higher-efficiency boiler. They can install under bench heating or radiant floor heating. They can upgrade to a high-energy condensing unit heater. And they can even put in programmable controls.

So many options. Leichty, at Little Prince, has considered them all and is using most of them.

Under bench and in-floor heating systems. These heat the rootzones of the growing plants, rather than heating the air above them. According to Les Grafton, a regional sales manager for greenhouse supplier **BioTherm**, rootzone heating makes sense.

“Water carries 30 times more energy than air,” he said. “You're already seeing a huge energy efficiency increase with hydronic heating. The air then becomes a backup or emergency heat source.”

And the plants don't mind. “As long as you're keeping your rootzones at 65–70 F, it doesn't matter if your room temperature is 55,” Grafton said.

The under bench radiant heating tubes now come in roll-out mats, which can be customized to the length and width of the bench or the bed where it is



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to be installed. “It saves roughly 30–40% on the installation cost, just from the simple ease of rolling,” Grafton said.

Little Prince put them in their houseplants house and in several others. “It’s a more efficient way of heating,” Leichty said. “We feel like we’re getting a natural gas savings from doing that, for sure.”

Greenhouse shells. There are so many options. Inflated double-polyethylene coverings can reduce heat loss by 50%. If the grower upgrades to a double-layered, infrared-inhibiting polyethylene cover, that further reduces heat loss by up to 20%. And for rigid-framed greenhouses, it’s possible to upgrade the glazing from fiberglass or corrugated polyethylene to double- or triple-polycarbonate and reduce heat loss by 40%.

The endwalls of the greenhouse matter as well, where upgrading to double-wall polycarbonate can reduce heat loss and air infiltration. “All the new construction that we’re doing or that we’ve done over the last four or five years has used twinwall polycarbonate for a bigger insulation factor on the endwalls,” Leichty said.

Thermal curtains to reduce heat loss are also an option.

Efficient heaters and boilers. A simple tune-up can increase performance boost combustion efficiency by up to 10%. Insulating pipes will prevent heat loss.

A high-efficiency condensing boiler will wring more heat out of the same volume of natural gas, while decreasing heat waste exhausted from the boiler.

And new high-efficiency condensing unit heaters far exceed the models that were released just a few years ago. Those had 80% heating efficiency and the new ones get into the 90% range.

Little Prince has made use of all of these with the help of incentives. “We’ve gotten rebates from the Energy Trust [of Oregon] for all of those conversions,” Leichty said.

Digital controls. Modern systems can automate greenhouse processes and coordinate different energy-using systems. They can ensure that when vents are open, the heating isn’t running so that you’re not “heating the outside.” They can regulate

Double-wall polycarbonate endwalls are fluted, trapping air that acts as an insulation barrier between the cold outside and warm inside of a greenhouse, thus reducing heat loss.

PHOTO BY CURT KIPP



temperature, humidity, ventilation, lighting and irrigation using timers, sensors or feedback from a weather station, and they can set back heat levels at night to reduce fuel (and money) burned.

Practical and paper solutions

Peter Rempp serves as facilities director for **Smith Gardens Inc.**, a greenhouse grower based in the state of Washington with growing facilities in Oregon and California as well. As such, he’s responsible for heating vast amounts of production space efficiently, and very well knows the frustration over rising rates.

“Oftentimes you have this feeling you’re held over a barrel, beholden to someone else that’s providing what you need, and you don’t have any say in how it’s delivered, how it’s received or what it costs,” he said. “You can tighten up the ship and look for ways to reduce your burn; you can improve your insulation, close up any air leaks, and invest in high-speed doors that close up quickly as your forklifts move in and out; or you can keep greenhouses as empty as possible and consolidate crops.”

Like many other producers, Smith Gardens has done many of these things, but that’s not all.

They have also bought their own natural gas futures on the open market. This is different from buying gas directly from the utility as a regular customer, though they also do that, too.

Buying natural gas means paying at a slight premium, but it assures them of a set price for a portion of their natural gas

needs, protecting them against price spikes.

“I equate it to buying insurance,” Rempp said. “I’m protecting myself, or hedging myself against a price blowout, by committing to a delivery of gas early at a known price. Because I’m buying early, I’m committing to it. It’s going to be priced a little higher than what they think it’s going to be and that’s how they’re happy with the sale. They now have a known value that they have a known customer for.”

From a practical standpoint, the delivery of the natural gas works like this.

“We actually have a third party go out and source natural gas, have it delivered to the utility city gate — or we call it a hub — and then the utility will deliver it from that city gate or hub to our meter at our facility,” Rempp said. “We’re not actually buying the gas from the utility but from a third party, and then we pay the utility to deliver it to our site.”

For Smith Gardens, it’s worth the added trouble and cost. “It helps us to know what our budget’s going to look like in the future,” Rempp said. “We have secured a certain percentage of our known volume.”

And it’s not necessarily something just for larger growers.

“I would say it’s worth investigating,” Rempp said. “It’s worth contacting a broker and asking that question. I don’t know that there’s a minimum volume to make it viable.” ☺

Curt Kipp is the director of publications and communications at the Oregon Association of Nurseries, and the editor of Digger magazine.

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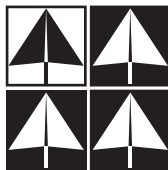
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Series content is coordinated by Dr. Lloyd Nackley, associate professor of nursery production and greenhouse management at Oregon State University in Corvallis, Oregon.



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Dogging your voles

Researchers explore whether hounds can assist in timely vole management

BY DANA SANCHEZ AND NICK ANDREWS



Vole holes are a visible sign of vole activity. The animals dig dime-sized entrances to their burrows around the roots of plants. PHOTO COURTESY OF OREGON STATE UNIVERSITY

IN THE BIG PICTURE, burrowing animals contribute significantly to natural ecosystems and the soils on which our own economies and lives depend.

Burrowers contribute to soil aeration, provide nutrients and soil organic matter, participate in redistributing nutrients to the root zone, and they also improve drainage and water infiltration. They create habitat and provide critical food for other species, including predators.

Mounting examples are emerging showing that burrowing rodent species are, in fact, keystone ecosystem engineers vital to keeping entire natural — and human — systems intact and functioning.

Serving as foundational prey sources for numerous predators is a tough gig if you're to survive as a species, so many rodent species adapted via natural selection to achieve high reproductive output. In particular, many vole species possess the potential to boom (i.e., irrupt) when a combination of conditions are especially favorable.

On the other hand, the business environments navigated by farmers and producers favor some level of predictability. Thus, unpredictable vole irruptions and the increased loss and damage they can impose represent a significant risk for producers. Although the means to predict vole irruptions continues to elude us, we can still anticipate damage from these native gnawers as we plan our management tasks.

A potentially exploding population

In the Willamette Valley of Oregon, the primary species of concern is the



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GROWING KNOWLEDGE

gray-tailed vole (*Microtus canicaudus*). They achieve relatively short lifespans (2–16 months), but females can reach sexual maturity in as few as 21–23 days. Pregnancies last only 3 weeks, and each litter likely averages 4–6 pups. Females can become pregnant again immediately after giving birth.

These factors allow “overlapping generations” of females (e.g., grandmothers, moms, daughters, daughters’ daughters) all reproducing at the same time. There is some potential relief in that reproduction slows markedly and may even stop in January and February, based on local research (Wolff et al., 1994).

Regardless of crop, a manager seeking to limit vole populations in the coming growing season is well-advised to take advantage of that lull.

By reducing the population deep in winter, we get more “bang for the buck” because for each adult trapped, we take a breeder out of production for the coming growing season.

The trouble with voles is that their holes (burrow entrances) last longer than the animal that excavated them. Therefore, targeting over-winter survivors is complicated by needing to scout multitudes of burrow entrances that persist despite a relatively(!) low number of voles. So how can we maximize our effectiveness in hunting down the over-winter survivors before they begin making more voles?

The trick is to let the voles tell you where they are right now or, failing that, which entrances they are using as they return from feeding. You can then focus your investment of effort accordingly.

Regardless of whether you’re using snap-traps or conventional chemical controls, scout to identify the entrances and nearby runways where there is fresh scat. The freshest scat tends to be greenish, and at close examination will clearly be new and undegraded compared to scat that has been aging and weathering. Sometimes you can find fresh grass clippings in a surface runway — the nearest burrow entrance will likely hold further indicators of frequent use.

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The head and body length of an adult gray-tailed vole varies between 3.25 and 4.75 inches (83 and 121 mm) and the tail ranges from 1.5 to 3 inches (38 to 76 mm).

WIKIPEDIA PHOTO



area such as a field or grove, you might start noticing that most of the active sign is grouped either on a margin or in an area of relatively higher ground.

When flooding or other conditions become severe enough, and especially when populations are relatively low, the voles' territorial behaviors may be suppressed enough to allow the survivors to pack into a patch of the best-available habitat, or refugia. For example, although the gray-tailed vole is fairly unique among vole species for its ability to swim within burrows and withstand flooding, if there's a lot of standing water, you might be able to really concentrate your control efforts on that "higher ground," or refugia — their highest value real estate.

Releasing the hounds

A team of Oregon State University Extension professionals is exploring whether assistance from dogs' fantastic scenting abilities might make the scouting task more efficient and thus effective. Formal "canine detection" has evolved to an exacting science and demanding standard of precision via rigorous testing to establish accuracy rates among handlers and their dogs.

Applications of rigorous canine detection have become well-established and are continuing to expand beyond security screening. Disciplines ranging from human medicine to agricultural security are employing highly trained dog-and-handler teams to detect threats ranging from cancer in human patients to invasive species in the field or at a port.

These applications inspired our project. While not aspiring to reach the time and testing demands of true "canine detection," we designed the study to use dogs'

abilities to benefit producers trying to manage the challenge posed by voles.

We set out to explore whether snap-trapping, assisted by canines using their natural abilities to maximize efficiency and success of a trapper, might offer an effective, non-toxic tool for vole population control to reduce damage in a wide range of crops.

Although we are conducting the trials in fields, the scouting process and detection clues should also offer benefits to those managing vole conflicts in greenhouses, where choices may be to trap, use rodenticide, or simply identify a new spot where exclusion measures such as hardware cloth are needed.

Efficient scouting with canine assistance could add a valuable method to the toolbox, and potentially reduce the cost and improve the efficacy of vole management with traps or rodenticides.

We knew it would be important to test the dog-assisted trapper's efficiency and effectiveness against an "unassisted" human trapper working on their own to scout and trap a plot of the same size in the same field. Therefore, we compare trap success (number of voles killed per number of traps set), efficiency (number of voles killed per minutes spent searching and marking holes) of those two team types.

Our original design involved wild-caught voles that we maintained in captivity for scent-signature training of highly-accomplished Nosework sport teams on live-vole scent. Unfortunately, our initial plans were greatly delayed and then scuttled in the 2021–22 season due to disease-transmission risk from those voles. (Learn more at <https://www.cdc.gov/leptospirosis/resources/leptospirosis-fact-sheet.html>).



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An Oregon State University researcher holds up a gray-tailed vole. Also known as field mice or meadow mice, voles are a perennial problem for Oregon farmers. Every few years their population booms. Controlling them can be a challenge. Researchers are evaluating the efficiency of canine-assisted trappers.

ASSOCIATED PRESS PHOTO

Although the delays meant we missed our goal of trapping the pre-breeding period in January–February 2022, we persisted in running one short round of on-farm trials to gain insights as to whether we should continue our work.

We conducted a single-round (24 hours from trap set to check) of trapping on five Willamette Valley farms (one hazelnut orchard, two dairy pastures, two vegetable farms), with each team (canine assisted and human only) getting their own quarter-acre plot in the same fields.

Despite the many challenges and limitations, results were promising. Canine-assisted teams and unassisted, but expert humans were virtually tied in trap success (.41 voles/trap by canine teams, .40 voles/trap by unassisted human), but differences in efficiency were telling. We had the opportunity to compare efficiency among three different canine-handler teams, which revealed a range from .29 voles killed per minute of search time to .65 voles killed per minute of search time.

When we compared the average efficiency and total search time spent by canine-assisted trappers (.48 voles killed/minute of searching over a total of 97 search minutes) to that of an unassisted human (.29 voles killed/minute of searching over a total of 232 search minutes), the value of canine-assistance became very clear.

Further testing to come

Our much-delayed 2022 season was very limited in how much data we could collect and thus how confident we can be in the results, but there were enough promising indications that we have pressed on to trap again in January–March 2023.



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Our 2023 winter on-farm trapping will be conducted on six pastures in the Willamette Valley. Pastures are among the most challenging to search, but by focusing on just one crop type, we will be able to conduct a more thorough comparison between team types.

We began hunting and trapping on January 2, and will visit each farm once every 14 days until mid-March or when we begin catching young voles — thus signaling the end of the pre-breeding season. We will be working with two of the returning canine-teams from last year and adding a third team that has trained and performed in professional canine-detection work to locate species-specific wildlife evidence in natural resource investigations.

Voies killed during our 2023 season are contributing to a parallel investigation being conducted by Drs. Sargent and Beechler of OSU's Carlson College of Veterinary Medicine to better understand which *Leptospira* strains and serovars occur in voles and other mammals in the Willamette Valley. Their work is important in understanding whether current vaccinations for pets and livestock are a good "match" to the potential challenges on our region's landscape. ©

About the authors

Dana Sanchez is Oregon State University Extension Wildlife Specialist, based on the Corvallis campus. She can be reached at dana.sanchez@oregonstate.edu.

Nick Andrews is an OSU Extension specialist in organic vegetables. He can be reached at nick.andrews@oregonstate.edu.

Vee Blackstone, Jenifer Cruickshank and Nik Wiman also contributed to this article. Cruickshank and Wiman are OSU Extension specialists in dairy, and hazelnuts, respectively. Blackstone is an Extension research assistant.

References

Wolff, J.O., W.D. Edge, and R. Bentley. 1994. Reproductive and behavioral biology of the gray-tailed vole. *Journal of Mammalogy* 75:873-879.



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Everyday things matter

As Benjamin Franklin left the Constitutional Convention, he was reportedly asked what kind of government the founders would propose. He replied, "A republic, if you can keep it."

This phrase has resonated through American history. It has been tested through a civil war, world wars, and even the toxic sludge of political discourse we are seeing right now.

I am reading a book by Supreme Court Justice Neil Gorsuch that borrowed this famous line by Benjamin Franklin as its title — "A Republic, If You Can Keep It." In it, Gorsuch talks the things that shaped his outlook, from his upbringing in Colorado through his court nomination process. One thing that stood out is what the justice surrounded himself with at home and his office — a bell went off for me.

How we surround ourselves at home and our work is a direct reflection of our own journey.

A humble office in Wilsonville

My journey as your executive director does not start with a farm background. A native Oregonian from Eugene, the son of a banker and nurse, I was raised in a middle-class family. I hold on to those middle-class values, and the product of my fatherhood is all around me. Photos of my girls. Notes calling me a muffin butt. Craft items done at school.

On a shelf are various awards given by the association and other entities, and nods to past employers — Metro and the United States Senate, to name two. The pen I used to sign the beam of the expansion of the Oregon Convention Center in 2002. A signed poster of the Smithsonian Exhibit (the traveling 150th Anniversary) that I leveraged my time in U.S. Senator Bob Packwood's office to land the destination in competition of other western states. Plaques of service to the State of Oregon as board member of the State Accident and Insurance Fund, and another denoting my time in the U.S. Senate. A print of Washington, D.C. that I saw every day when I worked for Senator Packwood. Original art pieces of three presidents — Grover Cleveland, Teddy Roosevelt and Abraham Lincoln.

These all reside among other random items accumulated from my past, but most valuable to me are the items from the OAN family. A shovel that I won at a raffle at the Willamette Chapter meeting that has associated with it a recollection of scoffing by Pete Brentano of Brentano's Tree Farm. He said it would be no use at my house — and he was right!

An Ag Overtime Warrior print is joined by a hammer, much akin to Thor, created by Kyle Fessler at Woodburn Nursery and Azaleas as a token of appreciation. If you sat in my office and looked around, part of my story would unfold.

The 64th Avenue bunker

During COVID, working from home was a new experience. I often called my home office "the bunker."

Like any home, this tiny makeshift office is a mixture of shared space with my wife, Jennifer Satalino. We work back-to-back, and both of us are loud and expressive.

A 360-degree view gives a glimpse of my upbringing. Oregon Ducks and Oakland Raiders helmets are alongside plaques celebrating Hall of Fame New York Met pitcher Tom Seaver and one of the best teams in baseball history — the 1975 World Series Champions — the Cincinnati Reds. I am a sports nut.

Two American flag pieces dominate the room, one of which is a treasure to me — the Avenue in the Rain by Frederick Childe Hassam hand-painted oil painting reproduction, American flag-decorated streets. It is beautiful.

A print of a dignified and sad Native American woman was a singular focus in the office of Supreme Court Justice Sandra Day O'Connor, and it spoke to me. It hangs next to my defunct lawn sign, "Stone for State Representative."

Like at OAN, what is most precious is the number of photos of my family. Carolyn Rose's first artwork of object permanence that has my head with three



Jeff Stone
OAN EXECUTIVE DIRECTOR

hairs on it. A precious photo of a 5-year-old Andrea Margaret on my lap on vacation, and one of my wife, Jennifer, in her pajamas out on the deck with pure glee in her smile as it was snowing.

A University of Oregon bottle opener personally made by Kyle Fessler is a prized possession and every time someone opens a beer, they are instructed to say, "Thanks, Kyle."

There are the shell casings from my first time shooting a gun, courtesy of Chris and Josh Robinson, and a ton of items that invoke memories of decades past.

What dominates the bunker are books, more than I can possibly read in my lifetime. A thousand books are in waiting for the library that will be built when my youngest daughter graduates from Washington State University.

I have been thinking about my mother and recalling with fondness what she surrounded herself with. There is a common theme of work, family and the love of athletic teams. The apple does not fall far from the tree.

The journey is all around you

What we surround ourselves in our homes and work is a story about ourselves. We typically do not acquaint ourselves with what is important to our fellow humans, or take in what they surround themselves with, but we should.

We should not wait to clean out an office of a colleague or friend who passes on only to discover what they wanted to see each day. Take a moment to take in your environment at home and at your operation, and celebrate the path that brought you here. ☺

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