

Digger^{leaf}

MAY 2018

BRINGING EFFICIENCY INTO BLOOM

Ideas for getting more from your:

- Management
- Workflows
- Inputs
- Use of space
- Marketing
- Money

Pages 13-28



PUBLISHED BY



OREGON
ASSOCIATION OF
NURSERIES

INTRODUCING

ASTUN

ORNAMENTAL FUNGICIDE

SUPERIOR BOTRYTIS CONTROL



- Preventative, systemic, and curative
- Rapid rainfast performance
- Effective on field resistant strains

© 2017 OHP, Inc. All Rights Reserved. Astun is a trademark of OHP, Inc.

Astun[™]
Ornamental Fungicide

#astun 

@OHPsolutions 

ohp.com

(800) 356-4647



INSECTICIDES
FUNGICIDES
MITICIDES
PGRS
HERBICIDES

ohp | Partners
with
solutions

COMMERCIAL QUALITY FOR JOBS A BIG TRACTOR CAN'T DO.

TWO-WHEEL TRACTORS

MODEL 749
W/ TILLER

All-Gear Driven.

Lifetime Transmission Warranty.

Maneuverable in Tight Spaces.

Lightweight for Less Compaction.

Dozens of PTO Driven Attachments.



POWER HARROW



ROTARY PLOW



FLAIL MOWER



Stocking BCS Dealers located throughout the Pacific Northwest!

Clark's Lawn & Garden Equipment
14186 Fir St.
Oregon City, OR
(503) 656-0720

Moen Machinery Co.
268 NE Hogan Dr.
Gresham, OR
(503) 666-9159

Stark Street Lawn & Garden
11827 SE Stark St.
Portland, OR
(503) 255-5393

Stark Street Lawn & Garden
14270 SW Galbreath Dr.
Sherwood, OR
(503) 625-2967

Henderson Turf & Wear Inc.
5120 SE Johnson Creek Dr.
Miwaukie, OR
(503) 777-8611

Emerald Power Equipment
600 State Hwy 99 N
Eugene, OR
(541) 688-1686

Carl's Mower & Saw
6209 Portal Way
Ferndale, WA
(360) 384-0799

Hartill's Mountain Saw & Tractor
101 W Robert Ave.
Chewelah, WA
(509) 935-8829

Doug's Organic Gardening Center
105 Beebe Bridge Rd.
Chelan, WA
(509) 669-0993

Power Shop
3820 Harrison Ave.
Centralia, WA
(360) 736-6340

Greenshields Industrial Supply
710 N Broadway Ave.
Everett, WA
(425) 259-0111

NorMont Equipment Co.
1157 Wire Mill Rd.
Black Eagle, MT
(509) 669-0993

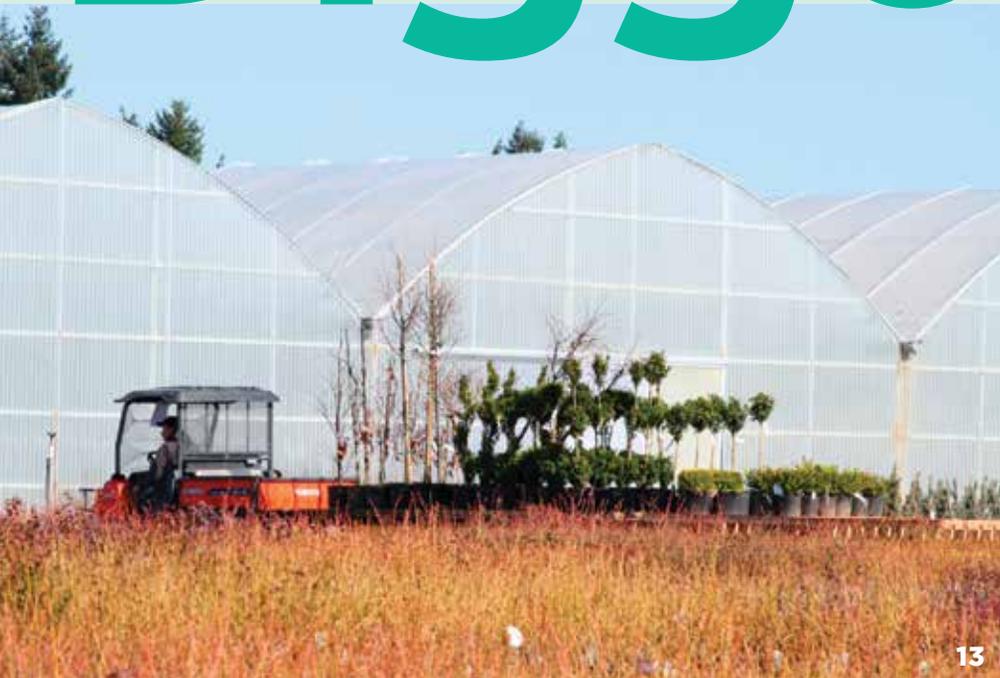
www.bcsamerica.com



1-800-543-1040

April 2018 Vol. 62 No. 5

Digger



THE EFFICIENCY ISSUE

Rising costs, labor scarcity and competition create challenges for growers. Greater efficiency can be the answer.

13 Your efficient nursery business

We talked to more than a dozen growers and industry colleagues who have become more efficient, and increased their bottom line, by improving their management, workflows, inputs and workspaces

- 14 **ONE: Managing for efficiency**
- 16 **TWO: Creating an efficient workflow**
- 20 **THREE: Using your inputs efficiently**
- 21 **FOUR: Arranging the workspace**

25 Efficient marketing

Ian Doescher of Pivot offers tips to maximize your outcomes.

27 Efficient money

Carol Suruki-Carmany of Moss Adams offers tips for wise spending.

COLUMNS

- 7 President's Message
- 25 Pivot Points
- 38 Director's Desk

DEPARTMENTS

- 8 Calendar
- 10 Northwest News
- 29 Classifieds
- 32 Advertisers Index
- 32 Subscription Info
- 33 Growing Knowledge
- 37 Digger Marketplace



Printed in Oregon on domestic recycled paper when available.

On the cover: Nurseries across Oregon are getting creative with smart, work-saving measures. On the cover: Woodburn Nursery & Azaleas invented a 60-foot trimmer to make quick work of its pot-in-pot areas. PHOTO BY CURT KIPP **On this page:** Alpha Nursery (left) stages top sellers near the loading dock so as to minimize back-and-forth trips to far-flung locations on the nursery, while Eshraghi Nursery (right) has signs marking each block of plants with the fertilizer rates and time last fertilized, so the info is available at a glance. PHOTO BY CURT KIPP

MEET US THERE

OUR CONIFERS ARE Picture PERFECT

Amanda and Wayne Staehely
with children Luke and Emma
Columbia Nursery LLC
Farwest Exhibitor

We are Farwest. We come for the rare and unusual. We come where plants and sales go hand in hand.

Meet us out West to discover horticultural gold.

August 22-24, 2018
www.FarwestShow.com



OREGON
ASSOCIATION OF
NURSERIES



LEONARD ADAMS INSURANCE

Offering employer and individual health,
dental, property and casualty insurance



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 WEB
www.diggermagazine.com NEWS BLOG

STAFF

Jeff Stone EXECUTIVE DIRECTOR
jstone@oan.org 503-582-2003

Beth Farmer COMMUNICATIONS &
WEB DESIGN MANAGER
bfarmer@oan.org 503-582-2013

Bill Goloski PUBLICATIONS
MANAGER
bgoloski@oan.org 503-582-2009

Kelsey Hood EVENT & PROGRAM
COORDINATOR
khood@oan.org 503-582-2010

Debbie Hopkins ACCOUNTING &
DATABASE MANAGER
dhopkins@oan.org 503-582-2004

Curt Kipp DIRECTOR OF COMMUNICATIONS
& PUBLICATIONS
ckipp@oan.org 503-582-2008

Allan Niemi DIRECTOR OF EVENTS
anieni@oan.org 503-582-2005

Blair Thompson ADVERTISING
ACCOUNT MANAGER
bthompson@oan.org 503-582-2012

Kristen Urban EVENT & EDUCATION
MANAGER
kurban@oan.org 503-582-2011

Stephanie Weihrauch DIRECTOR OF FINANCE
& ADMINISTRATION
sweihrauch@oan.org 503-582-2001

DIGGER

Curt Kipp EDITOR
ckipp@oan.org

Bill Goloski ART DIRECTOR
bgoloski@oan.org

Blair Thompson ADVERTISING
ACCOUNT MANAGER
bthompson@oan.org

EMPLOYER AND INDIVIDUAL, HEALTH AND DENTAL INSURANCE
OAN MEMBERS HAVE ACCESS TO EXCLUSIVE PROGRAMS

AGRI BUSINESS • COMMERCIAL AUTO • PROPERTY • FARM • GENERAL LIABILITY INSURANCE

AUTO/HOME INSURANCE

WORKERS COMPENSATION INSURANCE

OAN members have exclusive program access
with Providence Health Plans and LifeMap



HEALTH



WORKERS
COMPENSATION



AUTO
HOME



AGRI
BUSINESS



PROPERTY &
CASUALTY

Contact Randy Skinner: 503-296-0077 • 866-907-1850

randys@lacoinsurance.com • www.lacoinsurance.com



5201 S.W. WESTGATE DR, SUITE 300
PORTLAND, OR 97221



OREGON ASSOCIATION OF NURSERIES
GROUP HEALTH, DENTAL, PROPERTY &
CASUALTY INSURANCE PROVIDER

Employer & Individual Health and Dental Insurance • Property & Casualty Insurance
Agribusiness Insurance • Workers Compensation Insurance • Auto & Home Insurance

Copyright © 2018 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 for address change.

Postmaster: Change of address correction requested to above address.

ADVERTISING Contact OAN Publications for display and classified advertising rates. Deadlines are the 1st of the month preceding the month of publication.

2017-2018 EXECUTIVE COMMITTEE

Josh Zielinski
PRESIDENT
josh@alphanursery.com

Alpha Nursery
5050 Hazelgreen Rd. N.E.
Salem, OR 97305-3519
503-390-1286
FAX 503-390-2639

Mike Hiller
PRESIDENT-ELECT
mike@kniusa.com

Kraemer's Nursery Inc.
P.O. Box 930
Mt. Angel, OR 97362
503-845-2283
FAX 503-845-6557

Jim Simnitt
VICE PRESIDENT
simnittnsy@canby.com

Simnitt Nursery
138 NE 22nd Ave.
Canby, OR 97013
503-266-9640
FAX 503-263-6330

Kyle Fessler
TREASURER
kyle@stchristophernursery.com

St. Christopher Nursery LLC
12936 Portland Rd. N.E.
Gervais, OR 97026
503-580-4470
FAX 503-792-3902

Mark Bigej
PAST PRESIDENT
mbigej@als-gardencenter.com

Al's Garden & Home
1220 N. Pacific Hwy.
Woodburn, OR 97071-3616
503-981-1245
FAX 503-982-4608

Josh Robinson
SECRETARY
josh@robinsonnursery.com

Robinson Nursery Inc.
P.O. Box 100
Amity, OR 97101
503-835-4533
FAX 503-835-3004

Denec Messenger
MEMBER AT LARGE
denecemessenger@comcast.net

Decorative Bark Products
P.O. Box 1198
Tualatin, OR 97062
503-510-4029
FAX 503-859-3764

STATE BOARD REPRESENTATIVES

CENTRAL OREGON CHAPTER
Gary S. English
gary@landsystemsnursery.com

Landsystems Nursery
541-382-7646

CHRISTMAS TREE CHAPTER
vacant

CLACKAMAS CHAPTER
Adam Farley
afarley@countysidenursery.com
Amanda Staehely
amandastaehely@gmail.com

Countryside Nursery
503-678-0511
Columbia Nursery
503-810-2598

EMERALD EMPIRE CHAPTER
Tamara Clift
tamaragreg@msn.com

McKenzie River Nursery
541-747-2767

GREENHOUSE CHAPTER
Andrea Avila-Aragon
andrea.avila-aragon@smithgardens.com

Smith Gardens
503-678-5373

Mark Leichthy
mark@littleprinceoforegon.com

Little Prince of Oregon Nursery
503-678-5687

MT. HOOD CHAPTER
Scott Ekstrom
scott_ekstrom@yahoo.com

Ekstrom Nursery Inc.
503-663-4035
Kinen's Big & Phat
Special Plants
503-866-3627

Anthony Kinen

RETAIL CHAPTER
Laura Hammond
lhammond@als-gardencenter.com

Al's Garden & Home
503-981-1245

SUNSET CHAPTER
Matt Gold
matt.gold@midasnurserysolutions.com

Midas Nursery Solutions
503-628-3059

Ron Kinney
rkinney@monrovia.com

Monrovia
503-868-7941

WILLAMETTE CHAPTER
John Maurer
john@evergreengrowers.com

Evergreen Growers Supply Inc.

Robert Van Klaveren
vansnursery@aol.com

Van's Nursery
503-463-4507

What does efficiency look like?

Regardless of what part of the country you are in, it seems labor is tight for nurseries in need of help. We all know our businesses must reckon with limited options if we are going to remain open.

One way to address the labor shortage is to do more with less. Everywhere we look, we see or hear about comrades, colleagues, and competition taking steps to be more efficient.

But what is efficiency? What does efficiency look like to you?

When I think of efficiency, my mind quickly goes to the farm side of our family business where we have big acreage, big tractors and few people. Literally, there are three guys and lots of equipment producing thousands of tons of row crops and specialty seeds on more than 2,000 acres.

If I dwell a bit more on efficiency, a few other things come to mind. I think of robotics and mechanization for every specialized task like we see in the car commercials with their fancy assembly lines. Then, I think of streamlining product mix to avoid low-margin, labor-intensive crops, much like we see at so many large growers in the Netherlands.

But are these visions meaningful to our nursery, our products and our market?

There is nothing wrong with wishing for a magic topiary machine with its mechanical eyes and arms zooming in all directions; transforming a four-foot arborvitae into a perfectly manicured topiary in split seconds.

Is that realistic, though? Probably not, considering the likely cost of building such a machine and the fact that topiaries are a small part of what our business produces.

With this understanding, I have tried to take a different perspective of what efficiency looks like lately — and a simpler one: Efficiency is as basic as a clean and well-organized workplace where employees have easy access to the tools they need.

At our nursery last summer, we took three days — and at least as many Dumpsters — to remove things we no longer need to improve various work areas on the nursery. We outfitted these areas with labels and signage, which helped us save time searching the entire premises for tools.

I know I personally have saved hours looking for a mower or a plant tag. Gosh, I wonder how much time I would save if I organized my desk?

Efficiency also means being able to run the same potting machine at a better pace all day — with fewer stoppages — because tasks were better distributed among the team members. Before evaluating our workflow, we saw the machine's frequent stops to restock pots and liners or advance a trailer as benign. These tasks only shut the line down a half-minute or so at a time, right? But they added up to hours each week. Now, we focus on minimizing those stops before worrying about which fancy gadget promises to deliver more.

There are lots of other examples, such as the way the office processes orders to the way we hope to pull orders (that one's a work in progress). We can try different things and see what the trusty stopwatch has to say about each of them.

It may seem like small potatoes, but with the rising cost and shrinking availability of labor these small investments can go a long way. Usually, it only costs us the time it takes to pause and try something new!

It hasn't been easy to steer away from old, inefficient and often costly habits, but it has been a fun challenge that should help — at least a little — with the current labor supply issues.

Now, machine and equipment makers:
How about that topiary machine? ☺



Josh Zielinski
OAN PRESIDENT



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*.

MAY 5-6

SPRING GARDEN FAIR

The Clackamas County Master Gardeners will present their 34th annual fair at the Clackamas County Event Center (694 NE Fourth Ave., Canby). The event will feature more than 200 vendors, 10-Minute University™ Classes, free pH soil testing and an “ask an OSU Master Gardener” feature. Admission is \$5; kids under 16 are free. Go online to www.springgardenfair.org for more details.

MAY 8

SUNSET CHAPTER TACO TUESDAY

Tour a tree nursery with a plate of tacos and the members of the OAN Sunset Chapter! Robinson Nursery is welcoming OAN members and guests to their nursery for a free taco lunch, good conversation and an in-person look at their innovative deciduous tree propagations. The event will be 10 a.m.–12 p.m. at 9339 Trestle View Lane, McMinnville, Oregon. For questions or to RSVP for the tour, please contact Chris Robinson at chris@robinsonnursery.com.

MAY 22

YOUNG GROWER SOCIAL

The OAN Mt. Hood Chapter is hosting a social get-together for nursery professionals 40 and younger starting at 6:30 p.m. on Tuesday, May 22. The event is open to all chapters. The event is at Oregon City Brewing Co. (1401 Washington St., Oregon City, Oregon). Visit the OAN website at www.oan.org/event/younggrower to learn more.

MAY 23-27

AMERICAN PEONY SOCIETY CONVENTION

Guests at this year’s annual convention will tour several locations, including Sebright Gardens, Adelmans Peony Gardens, Oregon Perennial Company, Lan Su Chinese Garden, International Rose Test Gardens and more. Registration includes a welcome dinner reception and silent auction, bus transportation and catered luncheons on Thursday and Friday, peony floral exhibition, educational seminars, annual banquet and live auction. Visit www.americanpeonysociety.org/events/2018-convention for more details.

JUNE 7

DUFFERS CLASSIC

The 29th annual golf tourney will tee off at 8 a.m. at the Stone Creek Golf Club in Oregon City, Oregon, with check-in starting at 7 a.m. A benefit for the Oregon Nurseries’ Political Action Committee, the event is a great way to reconnect with friends while supporting a strong nursery industry voice in Salem and



MAY 16

OAN OPEN HOUSE

OAN members and their guests are invited to the OAN Open House learn more about terrific member benefits and programs – including Legal Access, health coverage, Trucks to Trade Shows, fuel discounts, credit card processing, discounted Farwest Show booths, OAN advertising, and much more! Beverages and light bites will be served. Please drop in between 3–5 p.m. Wednesday, May 16 to the Dick Joyce Conference Room at OAN, 29751 SW Town Center Loop West, Wilsonville, Oregon. For more information or RSVP, contact Kelsey Hood at 503-582-2010 or khoo@oan.org.

Washington D.C. Register at www.oan.org/duffers. Sponsorships available. Call Allan Niemi at 503-682-5089 for details.

JUNE 7

URBAN AND COMMUNITY FORESTRY CONFERENCE

The theme of the 2018 Annual Urban and Community Forestry Conference is “The Dollars and Sense of Urban Trees: Are You Getting the Biggest Bang for Your Buck?” Arborists, tree managers, nursery professionals and municipal government officials are invited to learn the best practices for optimizing their return on investment in tree selection, plant codes, and care cost savings. Go to www.oregoncommunitytrees.org/home/annual-conferences/

JUNE 25

DIGGER: FARWEST EDITION

Display ad reservations for the 2017 Farwest Edition of *Digger* magazine are due. More than 11,500 copies of this extra-large edition will be distributed to *Digger* subscribers, as well as exhibitors and attendees of the Farwest Show in August. To reserve your space, contact Blair Thompson, OAN advertising manager, at 503-682-5089 or email ads@oan.org.

JUNE 27-29

NICH CONFERENCE

The National Initiative for Consumer Horticulture (NICH) will hold its annual conference June 27–29 at the Hilton Garden Inn Atlanta Airport North, Atlanta, Georgia. The group represents a nationwide effort of academia, government and industry associations to promote a consistent message of the value of horticulture. The conference will include dinner and an evening at the Atlanta Botanical Garden on the first evening, followed by an agenda exploring national viewpoints on consumer horticulture on the second day. An executive committee meeting is scheduled for the last day. Cost is \$130 to attend. The deadline to register is April 30. Visit <https://consumerhort.org/conference> for more details.

JULY 31-AUGUST 4

IPPS PACIFIC RIM CONFERENCE

The International Plant Propagators Society (IPPS) is holding its annual conference in Kona Hawaii, enabling guests to network with horticulturists from around the world. Come and tour plant propagation facilities, farms and gardens with others with others in a tropical paradise. Go to <http://wna.ipps.org> for more details.

Legendary Roots! Great Profits!

ANDERSON BANDS!

Call us today. 1.866.950.7687



2425 SE Moores Street, Portland, OR 97222
Tel: 503.654.5629 • Fax: 503.654.5655 • 1.866.950.POTS (7687)



Photo courtesy of JLPN, Inc.

info@andersonpots.com • www.andersonpots.com



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.



Senninger Irrigation appoints VP of global sales

Steve Abernethy will be transitioning from the role of vice president of global sales for landscape irrigation and outdoor lighting for the Hunter Industries Company to be Senninger Irrigation's vice president of global sales. Abernethy brings more than two decades of experience to his new leadership position.



"We are excited for Steve to join the leadership team here at Senninger as we execute our strategic plans to help feed a growing world," said James Burks, President of Senninger Irrigation. "Steve brings a long track record of building strong partnerships with OEMs and distributors, developing effective sales teams, and connecting customer needs to manufacturing operations."

Senninger Irrigation was acquired by Hunter Industries in January 2016 in a move for both companies to become leading, global manufacturers of commercial and residential irrigation solutions, landscape lighting, dispensing technology, and other custom manufacturing products.

Please visit the company website, www.senninger.com, for more details.



'PLANTS DO THAT' AWARENESS CAMPAIGN LAUNCHES

The National Initiative for Consumer Horticulture (NICH) began last year its "Plants Do That" campaign, emphasizing the functional value of plants. Similar to the "Plant Something" campaign, this marketing effort created at least four infographic-style posters that illustrate the benefits of indoor plants in our homes, businesses, and health care facilities. The first poster "Horticulture: the Art, Science, & Business of Plants" drew a roadmap to illustrate that consumer horticulture provides \$196 billion to the United States economy and employs 2 million people.

NICH represents a nationwide effort by academia, government and industry associations to promote a consistent message of the value of horticulture. The organization will hold their annual conference June 27-29 at the Hilton Garden Inn Atlanta Airport North, Atlanta, Georgia. The conference will include an agenda exploring national viewpoints on consumer

horticulture, an executive committee meeting, as well as an visit to the Atlanta Botanical Garden.

The awareness campaign posters are free to the public and can be downloaded at <https://consumerhort.org/plantsdothat>.

ODA DIRECTOR MARKS FIRST YEAR ON THE JOB

Alexis Taylor, director of the Oregon Department of Agriculture (ODA), has completed her first year on the job with positive feedback from the farming community, according to an article in the *Capital Press* newspaper (Salem, Oregon).

Jeff Stone, executive director of the Oregon Nurseries Association, stated that he believes Taylor has done a terrific job building bridges and reaching out to every corner of the state. "She has done a really good job of outreach, not only to the nursery and greenhouse industry," Stone said.

Taylor was named to replace former ODA



ODA Director Alexis Taylor holds a sign for Public Service Recognition Week.
PHOTO COURTESY OF OREGON DEPARTMENT OF AGRICULTURE/Flickr.COM

director Katy Coba, who was promoted to a higher job in the administration. She spent her first year on the job visiting every county in the state to learn the complex challenges and innovative spirit of Oregon's growers and ranchers. Prior to working with ODA, she supervised the USDA Farm and Foreign Agricultural,

which include the Farm Service Agency, Risk Management Agency and Foreign Agricultural Service. Read the full article at tinyurl.com/ybbyam7p.

SPONSORSHIP FUNDS GRANTED TO MT. HOOD, RETAIL/ GREENHOUSE CHAPTERS

The OAN Mt. Hood Chapter and the OAN Retail and Greenhouse chapters have each been granted \$400 in sponsorship money to support upcoming events, thanks to Northwest Farm Credit Services (NWFCs).

The Retail and Greenhouse chapters used the money towards the OAN/Griffin grower workshop that took place on March 28, while Mt. Hood Chapter will use the funds in support of this summer's annual Pioneer Dinner.

NWFCs created the sponsorship fund and endowed it with \$3,000 for the purpose of supporting chapter programs that benefit the OAN membership. All chapters are invited to apply. Each chapter is eligible for one \$400 award in the first round of funding, which ends May 31. After that date, all chapters are eligible to apply or reapply for any funds that remain, with the same limit of \$400 per event.

"This new program is part of the overall plan to fortify the OAN chapters," OAN Executive Director Jeff Stone said. "Chapter strength will be further addressed through the Chapter Revitalization Task Force that continues to meet on an ongoing basis."

Chapter leaders have been provided with the application form. Those interested in applying for this program may contact OAN Director of Events



OUTSTANDING VALUE EXPANDED
ORNAMENTAL OFFERINGS
IMPECCABLE SERVICE

From Acers to Zelkova, and many varieties in between, we specialize in understock for flowering, fruiting and shade.

Our customers come to us for our quality rootstock. They come back for our service and attention-to-detail.

WILLAMETTE
NURSERIES
Canby, Oregon

WillametteNurseries.com

Cambium Harvest

professional grow mixes

Indoor Grow
A lightweight blend with Peat Moss, Coir, Earthworm Castings, Mycorrhizal & More!

Outdoor Grow
A heavier blend of premium Compost, Dark Aged Fines with the added benefit of Forest Wood Bio Char & more!

Super Grow
A medium-weight blend designed specifically for indoor to outdoor growing; full of all the essential ingredients you need!

Delivery available throughout Oregon and California 7 days a week!

Available exclusively at

LANE
FOREST PRODUCTS
The company to grow with

(888) 345-9085
www.laneforest.com

Allan Niemi at aniemi@oan.org, 503-582-2005 or FAX 503-582-5099, with any questions.

GOV. BROWN SIGNS SMALL BUSINESS TAX HIKE, CALLS FOR SPECIAL SESSION

After weeks of deliberation, Oregon Gov. Kate Brown signed Senate Bill 1528 April 6, thereby taking away a small business tax break that had been Oregon law since 2013.

State revenue forecasters have said this will result in several types of small businesses paying \$244.4 million more in state taxes during the current biennium, and \$1 billion more by 2023.

At the same time, Brown also called for a one-day special session in June. She wants the Legislature to pass a small busi-

ness tax break for sole proprietorships. However, the other businesses set to pay more because of SB 1528 — namely S corporations, limited liability corporations (LLC's) and partnerships — would not be eligible for this break.

SB 1528 was passed during the short February session of the Legislature, as a response to the federal tax bill that President Trump signed into law in December 2017. The federal bill provided small business tax relief, which the state had done to some degree previously in 2013 as part of a “grand bargain” on taxation.

The OAN and several other business groups objected to the state bill via floor letter, arguing that many businesses will pay more, and the state doesn't need the money to balance its budget.

“To some, it would seem that small

business is getting two bites at the tax relief apple,” OAN Executive Director Jeff Stone said. “However, it is our view that not everyone benefited from the federal tax bill. In many cases, the closing of the tax benefit to the state businesses by the Oregon Legislature will lead to an increase in taxes paid.”

Brown had been expected to either sign or veto the measure. Her decision to split the difference by signing the bill but pushing for a sole proprietor tax break surprised most observers.

“The governor and the Legislature didn't heed our comments that not everyone benefitted from the Trump tax plan,” Stone said. “Several members have told me their taxes went up. I understand Oregon's leadership doesn't like the current administration, but I don't like

(Continued on page 35)



NELSON

Nelson Irrigation offers a complete line of water application solutions for the Nursery Industry. Whether you're looking for a single-row solution for greenhouses or a part-circle option for edge of field, if quality and performance are what you expect the answer is simple. **BUY AMERICAN — CHOOSE NELSON.**

ASK ABOUT NELSON'S NEW! TWIG® WIRELESS CONTROL SYSTEM FOR IRRIGATION AUTOMATION

NELSONIRRIGATION.COM

- NEW! S5 SPINNER
- S10 SPINNER
- R2000LP ROTATOR®
- PART-CIRCLE EDGE OF FIELD ROTATOR®
- 1/2" & 3/4" IMPACT REPLACEMENTS
- 1000 SERIES CONTROL VALVES



BRINGING EFFICIENCY INTO BLOOM

WHETHER IT'S A DAFFODIL or a giant sequoia, a plant is a relatively simple closed system. Its ultimate growth is driven by basic environmental factors such as light, water, soil and accessible nutrients.

The nurseries that produce these plants, however, are much more complicated.

In theory, everything that happens should contribute to the growth of the plants, and the nursery will therefore be profitable. But in practice, inefficiencies are everywhere.

More and more growers are putting themselves under the microscope and examining every step in the plant production process to determine what is truly necessary — and what is waste. To see the difference, and act on it, requires a change in outlook. And many nurseries are embracing that sort of change.

“In the old days, my dad would say, ‘We’re not a plant factory,’” said **Tom Fessler**, the second-generation owner of **Woodburn Nursery & Azaleas**. “But currently, we think we are.”

“We used to take pride in doing a lot

of the work by hand,” said **Chris Lee**, a manager at **Eshraghi Nurseries**, a wholesale grower based in Hillsboro, Oregon. “There was a perceived value in the extra time spent with each plant. As we become

customer pays only for the product. Anything else is waste, and the producer pays for it. By reducing waste, any business — including a wholesale nursery — can lower costs, increase quality and make profits more likely.

Nursery profitability is always a challenge. We talked to more than a dozen growers and industry colleagues who have become more efficient, and increased their bottom line, by improving their management, workflows, inputs and workspaces

BY CURT KIPP, BILL GOLOSKI AND JON BELL

more efficient and automated, a more consistent and superior crop is often the result.”

Some efficiency-minded growers have adopted Lean, also known as the Toyota Production System. It gives users the tools to identify and eliminate waste.

People often think of waste as “what goes in the trash can,” but in the context of Lean, the meaning of “waste” is broader. It’s defined as anything that does not enhance the product’s value for the paying customer.

A key precept of Lean is that the

Rick and Elizabeth Peters, husband-and-wife owners of **The Peters Company**, are Lean consultants who operate Lean nursery consortiums in Oregon and Washington. As such, they work with several growers seeking to make their processes leaner.

“Lean is about going to war — a war on waste,” Rick Peters said. “This waste comes in several forms. But, all forms of waste cause excess use of resources, including labor, capital, time and creativity. With today’s labor shortages and increasing costs, remaining neutral on waste is no longer a viable option.”

There are 10 green industry businesses participating in the two consortiums, and expects to see more signing up.

“Choosing to opt out of the war is akin to slowly raising the white flag >>

Previous page: An employee at Woodburn Nursery & Azaleas uses a tablet computer as a guide during the process of loading shipments. The elimination of paperwork has saved the company work hours, thereby lowering costs. PHOTO BY CURT KIPP

to your competition,” he said. “Why? Because your competition is waging war ... not on you, but on their own waste.”

Although Lean is a significant and formalized commitment for a business to make, other growers have simply looked for efficiency informally, where they

can find it.

We visited with several growers who have taken steps to become more efficient. They’ve adopted a team management approach, adopted better workflows, improved their use of inputs and even rearranged their workspaces to make

everything come together like clockwork.

Although each nursery is different, the principle is universal. The power to be more efficient rests with growers and employees. We hope these examples will provide information as well as inspiration to improve your bottom line.

EFFICIENCY BEGINS AT THE TOP.

It starts with company leadership setting an expectation and empowering employees to contribute their ideas and expertise. It’s about encouraging dynamic, back-and-forth conversations in the workplace.

Companies such as wholesale propagator **JLPN Inc.** in Salem, Oregon; wholesale grower **Skagit Horticulture** in Mount Vernon, Washington; **Eshraghi Nurseries** in Hillsboro, Oregon; wholesale bedding plant nursery **Peoria Gardens** in Albany, Oregon; and wholesale plant nursery **Van Essen Nursery** in Lebanon, Oregon and others have taken numerous steps to set the tone for efficiency and innovation from the top to the bottom of the organizational chart.

PART ONE MANAGING FOR EFFICIENCY

Checking in often

Skagit Horticulture holds a morning managers’ meeting, which provides a regular outlet for discussion across departments.

Similarly, **Eshraghi Nurseries** holds a 9 a.m. production meeting every day to go over what will be happening across all departments. It streamlines communication, keeps everyone accountable and sets a productive tone for the day.

“Mentally preparing our day saves us a lot of time in the long run,” said **Chris Lee**, a manager at Eshraghi.

Looking everywhere for ideas

Jerrin Victor, general manager at Skagit, also looks to people from all levels of the organization. He knows ideas to make things better can arise at any time.

“Idea gathering starts out as casual,” Victor said. “When going through the greenhouse, someone will ask me ‘Why do we do this?’ or I will say ‘Why are you doing it this way?’

These simple conversations are sometimes the most valuable.”

Victor often visits employees who are following an established process to achieve a certain task. He asks them, “Do you think we can do it better?” The answer is usually yes.

It comes down to realizing that people care about what they do, no matter what that is, Victor said. A part of providing a creative environment is putting the accountability of group success back on the team members. Give employees a sense of ownership over what they’re doing, and impart that they are trusted to know what is best for the business.

Putting creativity before capital

John Lewis, owner of **JLPN Inc.**, operates under the precept of “creativity before capital.”

Although equipment upgrades can boost production, he encourages employees to get creative and suggest time-saving changes to routine that can be made for

little or no cost. These are often right in front of one’s face, and employees are the ones best positioned to see them.

“[Our Lean events] taught us to draw more from the foreman, and crews as a major wealth of knowledge,” Lewis said. “We found that many crew members had amazing insight to what we were doing, but they never voiced them until we got them in a large group to voice their ideas, and give input.”

Being generous with credit

There are no scorecards at a managers’ meeting, or in a JLPN brainstorming meeting. “I give [my employees] credit that they know more about their job than I do,” Lewis said. “That system works very well, because it promotes and encourages organic thinking, and gives people a sense of ownership in their job.

A part of the sharing spirit involves making sure people are proud of their ideas. Even if their suggestion fails, it can be a springboard for the next ideas. >>>



DO MORE WITH LESS

Control your nursery or greenhouse business before your business controls you.

Recent Peters Company client results from deploying

Lean principles:

Increased grading productivity

UP 182%

for an Oregon Grower

Improved shipping productivity

UP 58%

for a California Grower

Plant moving and spacing productivity

UP 112%

for a Washington Grower

OREGON ASSOCIATION OF NURSERIES' **"Distinguished Member of the Horticultural Allied Trades"** 2016 AWARD RECIPIENT

THE PETERS COMPANY

“Rick and Liz Peters have had a big impact at Smith Gardens. The difference they bring is a passion for Lean and commitment to the success of their clients. Their focus is 100% on the company. They really care about the people of our industry and adapt to any level to bring about positive change.”

Wes Bailey, Site Manager
Smith Gardens, Aurora Oregon



www.petersco.net

Elizabeth Peters • 503-250-2235 • info@petersco.net

The culture of a creative company is one that tests new ideas, talking about them thoroughly.

“Once you shut an idea down, you greatly reduce the number you will get in the future,” Victor said. “There are no tally marks for winning comments, but rather just a group of invested people saying ‘Hey, let’s stop and think about this for a minute.’”

Sharing the rewards

If seeking input from employees sounds like a radical step — something that might trigger an onslaught of employee complaints — well, Lewis takes things a step further. He shares the company’s savings from Lean events with his employees.

“I make sure to reward my crew for their efforts by calculating our savings on a Lean event with my Lean manager,” Lewis said. “I give that money back to them in the form of a Lean Bonus at the end of the year.”

It’s one more way he can reinforce Lean methodologies and practices. “Any

money that JLPN saves through the crew’s creativity, goes back into their pockets at the end of the year, not mine,” Lewis said. “That inspires creativity, and keeps us continually looking and making improvements in our process and adding value to our product for our customers.”

At Skagit, Victor rewards employees for sharing their ideas on the spot. “I have a bunch of gift cards in my desk,” he said. “That brings a lot of good ideas forward.”

Skagit has also built bonus programs into certain projects they work on to recognize employees for their contributions. At the completion of a large project, the company holds a group lunch to celebrate successes and recognize particular employees.

Hiring carefully for need

Although employees can be a source of new ideas, management is responsible for sizing the workforce and matching it to needs. Eliminating positions midstream is a preventable mistake that adds stress and financial hardship to employees.

“The saddest thing is hiring 15 and

then you realize in the middle that you are overstaffed,” Victor said. “Let’s spare people’s feelings, and get the process right from the beginning.”

Ben Verhoeven, president and general manager of **Peoria Gardens** in Albany, Oregon, said his nursery has seen “some difficulties” as a result of the labor shortage that plagues the industry, “but not yet to the degree that many other nurseries have.”

Hiring the right number of employees also helps cut down on overtime costs, he noted.

At **Van Essen Nursery** in Lebanon, Oregon, owner **Dave Van Essen** said he’d used a contractor to help ensure the nursery has the right number of employees for peak season. That has worked well, as has hiring locally and also identifying what Van Essen described as “hidden talent” that enables the employees to move up into higher-skill jobs.

One worker has worked her way up to lead the nursery’s perennial growing operation, while another has progressed up to the role of equipment operator.

ALTHOUGH SETTING THE TONE FOR INNOVATION IS IMPORTANT, THE PRODUCTION PROCESS IS WHERE THE ACTION TAKES PLACE.

Companies like **Alpha Nurseries** of Salem, Oregon; **Robinson Nursery** of Amity, Oregon; **Woodburn Nursery & Azaleas** of Woodburn, Oregon and others have realized great savings from revising their production processes to make them more efficient.

At Alpha, manager **Josh Zielinski** estimates that labor makes up close to half of the company’s production costs. “Any really small change that saves a couple of minutes an hour starts to add up,” he said. “It has a big effect on our bottom line efficiency.”

Zielinski noted that Alpha used to hire people to solve a problem before spending money on automation or equipment, because equipment is, by its nature, specialized. “We saw labor as flexible because it can do something else,” he said.

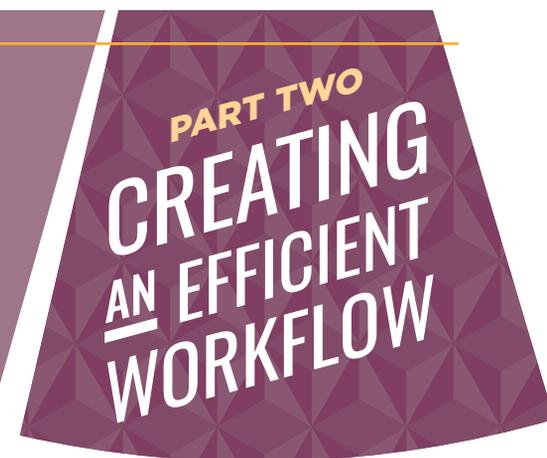
Now, there is no longer that presump-

tion. “It’s difficult to find quality labor, and it’s expensive,” Zielinski said. “It used to be difficult to justify equipment that will save money, but now it’s getting easier and easier.”

Removing slack from the chain

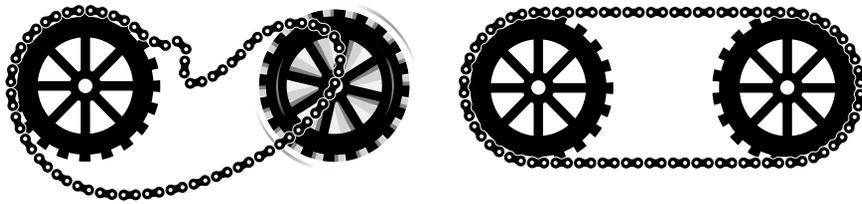
A key Lean precept is that the pace of work matters, and is especially critical with processes involving multiple employees.

Corey Hill, operations manager at



Skagit Horticulture, recalled a struggle for moving batches of plants on trailers in the field. The leader of his move crew remedied the issue with a simple analogy: He drew a visual diagram of a chain on two side-by-side sprockets, pointing out that if one sprocket turns faster than another, the chain bunches up and comes off the system.

Sprockets and chains are a strong metaphor for how work proceeds smoothly if all pieces run at the same pace.



The broken chain concept works just the same for the move crew — if the pick-up people work at a different pace than the set-down people, there will be slack in the chain.

Next, the leader created a new series of laminated task sheets showing the standard work. It gave everyone their set of tasks and, most importantly, a time limit.

It was a big change for the laborers who just want to work as fast and hard as possible. The goal of labor revision was to equalize the speed of the work and level out the pace of production. Managers carried stopwatches and taught the staff, “If you need a water break, work faster for a minute and then take a drink. This is a comfortable pace for you to work.”

By giving everyone the big picture, staff understood why one side of the field had only one staff member, but another

had two staff members. They could see it as a fair distribution of work, and this in turn improved outcomes and reduced staff turnover.

Seeing with fresh eyes

Robinson Nursery revised its process of coding trees. The nursery color-codes all of its trees with a dab of paint near the base. For employees, this was backbreaking labor. They had to bend over for long periods of time — long enough to code the hundreds of thousands of trees the nursery raises each year.

According to general manager **Chris Robinson**, it took a new employee with a fresh set of eyes to see a better way.

“One day about ten years ago, a new employee >>



Choices. Choices. Choices!

\$0 DOWN, 0% A.P.R. FINANCING FOR UP TO 48 MONTHS ON SELECT NEW KUBOTAS!*



RTV-X900 • 21.6 Gross HP, † 3-Cylinder Kubota Diesel Engine
• Variable Hydro Transmission (VHT-X) • Standard 4-Wheel Drive

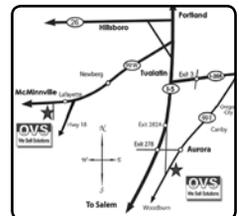
SVL95 • 96.4 Gross HP, † 4-Cylinder Turbocharged Kubota Diesel Engine
• Standard Auxiliary Hydraulics • Superior Power and Bucket Breakout Force



OVS MCMINNVILLE
2700 ST. JOSEPH RD.
MCMINNVILLE, OR
(503) 435-2700

OVS AURORA
19658 HWY. 99 E.
HUBBARD, OR
(971) 216-0111

STORE HOURS:
Mon-Fri: 8-5
Sat: 8-Noon



www.ovs.com • 800-653-2216

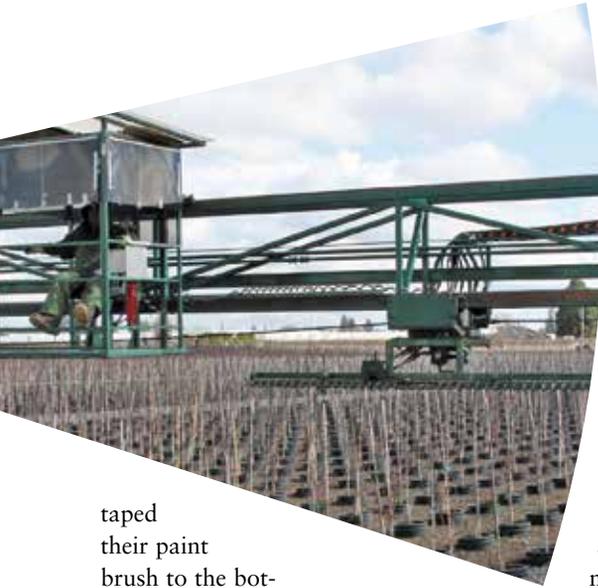
Full Service Shops with Mobile Capabilities!



*\$0 Down, 0% A.P.R. financing for up to 48 months on purchases of select new Kubota RTV Series, K008, KX, U, R, SVL, SL(SSV's) & TLB Series equipment from participating dealers' in-stock inventory is available to qualified purchasers through Kubota Credit Corporation, U.S.A.; subject to credit approval. Some exceptions apply. Example: 48 monthly payments of \$20.83 per \$1,000 financed. Offer expires 6/30/18. See us or go to KubotaUSA.com for more information. †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. K1227-44-140007-2

Your efficient nursery business

The pruning machine at Woodburn Nursery & Azaleas has sickle bar attachments that can move laterally or vertically, and can also rotate. PHOTO BY CURT KIPP



taped their paint brush to the bottom of a piece of bamboo,” Robinson said. “This extended the brush so that a person could be standing all day painting instead of bending over.”

Any improvement that makes work easier and more comfortable for the

employee is a good idea.

Building a better trimmer

Trimming of nursery material is an important, but labor-intensive, task. **Woodburn Nursery & Azaleas** automated this process, inventing its own pruning machine for pot-in-pot production areas. Spanning 60 feet, this giant machine trims row upon row of material with only a single operator.

The machine has lawnmower and sickle bar attachments. The cutters can move laterally and vertically, and can also be rotated. The machine itself has rotating tires so it can move forward, backward and sideways.

The machine, which was inspired by a cauliflower harvester, is an effective way to prune anything that can be flat on top.

Some manual touchup is usually required after the machine has made one pass over an area, but it still saves time over doing it all manually.

Similarly, **Eshraghi Nurseries** uses a shaper/trimmer that runs on conveyors and is used to trim containerized plants one at a time. They use it on conifers, deciduous shrubs and evergreens. According to **Terry Menninger**, plant maintenance and plant health manager, one chief advantage of the machine is that it keeps the process moving — which, in turn, keeps production humming.

“Plant in, plant out, trimmed and set down,” he said. “It’s a pace setter for how people move.”

Letting machines do the digging

Of course, mechanization can also help improve efficiency at a nursery opera-



F & L Lumber, Inc.

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
- **Container/B&B Pallets**
- **Gates/Gate Boards**
1X4-8' or cut to your length
- **Shipping Racks**
- **Tree Stakes**
- **Plant Boxes**

Call Michelle

Phone: 503.803.1175
Fax: 503.212.0160

E-mail: FLLUMBER@AOL.COM






Where Great Customer Service is a Given!
We Accept Visa & MasterCard



BIRINGER NURSERY

Wholesale Growers of
Fruit, Flowering &
Shade Trees

Deciduous Shrubs
Espalier Apple & Pear
Combination Fruit Trees
Dwarf Fruit Cherries
on Gisela™
Dwarf Flowering Cherries
Frost Peach®

PO Box 2809
Mt. Vernon, WA 98273
(360) 848-5151 Fax (360) 848-5959

tion. **Van Essen Nursery** is now using mechanical digging for a much larger percentage of digging than it used to. Not only is the process more efficient, but it reduces the pressure on the nursery to find hand diggers.

“We are able to use more of our regular crew for the digging process,” Van Essen said, adding that the nursery plans to look at improving its potting process and plant moving operations next to find more efficiencies.

Realizing that more might be more

Potting machines have been around the nursery industry for a long time. However, there’s a new awareness that automating a process won’t necessarily make it more efficient.

After Eshraghi Nurseries put in a new potting machine for large containers from #10 to #25, it initially processed 900 plants per hour. Although that is excellent, the nursery had the Oregon Lean Consortium help review the potting process, paying close attention to the interaction between crew and machine.

The surprising conclusion was that one additional worker was needed. Upon implementation, output doubled from 900 to 1,800 plants per hour.

“With a crew of three, the people had too much work to handle,” Menninger said. “With a crew of four, it worked. The flow was better.”

Results may vary. Woodburn Nursery & Azaleas also took a look at its potting process with help from the Oregon Lean Consortium. For them, the conclusion was different. “The decision was to slow it down and use one less person,” general manager **Tom Fessler** said. “Productivity is up.”

Each nursery must look at its own specific potting process and products to determine the optimal crew size and assigned tasks for each job on the line.

Cutting one’s losses

JLPN staff budgeted for expensive laser counters for a fabrication line, which were installed without testing. However, the counters did not work as efficiently >>

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

Broadacres North

9400 St. Paul Highway, Aurora, OR 97002
503-633-4562

Farm Store

20160 Main Street, St. Paul, OR 97137
503-633-4281

Home of the St. Paul Rodeo



Our team has the knowledge and experience to assist you in making sound decisions.

www.marionag.com

- Custom Blending
- Dry Fertilizer
- Liquid Fertilizer
- Organic Fertilizer
- Lime & Dolomite Application
- Nutrition Programs
- Pest Management
- Testing & Analysis
- Seed Cleaning
- Sand Blasting
- Paint Shop



Marion Ag Service is proud to partner with Harrell's, LLC to bring you Polyon™ controlled release fertilizer



Get the longevity you pay for

as needed, and there wasn't time to try and make them work while production was underway.

"We found they didn't do an effective job, and our best option was to redesign the counting system with a person using simple hand clickers to count bundles,"

John Lewis said. "In the end, we got the job done for the cost of about \$50, and shelved the lasers for the time being."

Although the money was spent on the laser counters, Lewis didn't feel the need to keep using them.

"We have no use for keeping a

'monument' in our nursery, just because we've paid for it, and aren't willing to cut our losses," Lewis said. "My manager even said, 'I guess we missed on that one.' However, we made the decision as a group, so we made the mistake as a group. I consider that true success."

PART THREE USING YOUR INPUTS EFFICIENTLY

Although labor is the largest expense for many nurseries, it isn't the only expense. Inputs such as water, fertilizer, growing media and even artificial light also impose significant costs for the grower.

Entire books could be written on saving water and electricity in a nursery. The Oregon Association of Nurseries and the Oregon Environmental Council worked in partnership to create the Climate Friendly Nurseries Project to help growers find many of these efficiencies. You can find the information at www.climatefriendlynurseries.org.

In terms of other input efficiencies, companies like **Marion Ag Services** in St. Paul, Oregon and lighting providers like **Fred C. Gloeckner & Company Inc** in Clackamas, Oregon are a boost to business.

Controlled release fertilizers

Plants have a constant need for sustenance — but nurseries don't have time to give them constant attention.

The development of controlled release fertilizers means longer feeding intervals than ever before. The fertilizer itself does the work of slowly releasing the nutrients on a predictable schedule. This saves on the input cost and it also saves on labor.

Marion Ag Services Inc. offers one such product line. Known as Polyon, the polymer-coated product is available in different formulations that can be custom blended based on grower needs.

"It's different than a slow release fertilizer," said **Hayden Hockett**, a researcher and registrar with Marion Ag. "It's controlled release. They can get very predictable release rates of nutrients over a long time. With some fertilizers, your nutrients can easily leak out of the bottom of the container in a heavy rain. But because this is a controlled release fertilizer not affected by rain, you're going to get the most out of that fertilizer."

Hockett said that in some cases, the fertilizer only has to be applied once per year. The consistent release of nutrients can help

prevent pests and diseases that are associated with boom-and-bust plant growth, he said.

Such growers as **Woodburn Nursery & Azaleas** and **Eshraghi Nurseries**, among many others, use the extended release fertilizers.

Terry Menninger, plant manager and plant health manager of Eshraghi Nurseries, said that by incorporating the fertilizer into the soils, they get greater incorporation of the extended release prills into the soil. They end up using more fertilizer initially, but less in the long run due to the greater longevity of the prills. It reduces the need to top dress the plants later on, he said.

Being LED to the light

Another input that's able to crank up the processes for some nurseries is lighting, specifically light emitting diodes (LEDs). Nurseries have long used high pressure sodium lights and LEDs, but advances in LED technology, coupled with incentives from entities like the **Energy Trust of Oregon**, have made LEDs an attractive option for some growers.

Iwasaki Bros. converted large portions of its operations to Philips LEDs,

installed by **Fred C. Gloeckner & Company Inc.**, about two years ago and has already seen notable improvements. According to **Kathleen Baughman**, operations manager for Iwasaki, rooting time has been reduced on some plants by a third to a half; cuttings that once took six weeks to be ready to plant now take three.

Ben Verhoeven, president and general manager of **Peoria Gardens**, recently said he installed LEDs in about a quarter of his propagation area. He's hoping to see improved growing conditions and increased energy efficiency — and, as a result, financial savings — in the very near future.

(For more about LEDs in the nursery industry, see the April issue of *Digger* at www.diggermagazine.com/an-illuminating-trend.)



PART FOUR ARRANGING THE WORKSPACE

In the nursery world, there's a fine line between having too much space and not enough. Ben Verhoeven, president and general manager of Peoria Gardens, has found the secret to walking that line.

"Lots of sleepless nights and coffee," he said. "Deep breaths. Colorful language."

In all seriousness, though, utilizing a nursery's space in the most efficient way is a serious concern in the business. Do it right and the benefits can be big; get it wrong and trouble ensues.

"One one hand, you have the need to maximize the use of your space. On the other hand, you want to reduce the number of times you touch a crop. You also must maintain crop quality," Verhoeven said. "It is a balancing act."

Applying 5s principles to the workspace

Because space is at a premium at most nurseries, getting control of that space is an excellent efficiency tool. One of the best tools for doing that is implementing a 5s

program, which is a key component of Lean or Kaizen methodologies.

The 5s program involves creating a simple, clean and safe arrangement of the workspace, where there is a specific location for everything. Unneeded items are ➤



SPRAYERS

High clearance and width adjustability is customizable for your crop



GREENHOUSES

GK's pre-drilled system will save you time and money



H7 TREE DIGGER

Digs trees, chopper/topper, row planter and bed lifter



COMFORT STATIONS

Meets all OSHA sanitation requirements



TRACKING TRAILERS

Standard or custom trailers available



Call for a friendly quote! **503-678-5525**

10590 Donald Road NE · Donald, Oregon 97020 WWW.GKMACHINE.COM

removed, as they only get in the way. The result is less time spent looking for things and more time spent getting things done.

Alpha Nursery is a big believer in 5s and has seen great results from it. They did a series of 5s reorganizations on several areas of their nursery — the chemical room, planting sheds, office, label room, loading dock and propagation area. Each time they did it, it was a team effort. It was successful in large part because of the rich and productive dialogue that resulted from that approach.

“We involved people that worked in those areas and those that didn’t,” **Josh Zielinski**, manager of Alpha Nursery, said. “The inexperienced people helped. They asked questions that opened up discussion about what was helpful and what wasn’t.”

The 5s program, initially developed in Japan, consists of five steps each beginning with the letter “S” — seiri, seiton, seiso, seiketsu and shitsuke. In English, five words beginning with “S” are also used — sort, set in order, shine (or sweep), standardize and sustain — with a sixth “S” for safety sometimes added. There are several online resources that break down each of the steps.

The final step — sustain — is key, as it is necessary to make sure that improvements remain in place for the long term. As with other Lean concepts, 5s is an ongoing process that gets revisited so that further improvements can be made.

Saving a step with liners

Bailey Nurseries has been shifting to use greenhouse liners — essentially cuttings that have been put in a pot with soil — more and more in its container program to help ensure that plants are finishing faster. Doing so ensures that plants move out of the nursery sooner, thus freeing up coveted and limited space in the container area.

“It’s something that we’ve been focused on a lot, how to turn that gravel as quick as we can,” said **Shane Brockshus**, general manager for Bailey’s West Coast operations. “The container farm is the most intense in terms of the cost of the acreage. The longer a plant is sitting there, the more we pay.”

Bailey, in fact, has developed its own

liners called JumpStarts, which come in hexagonal plugs and are designed for faster finishing times. Bailey grows JumpStarts for sale, but it also uses them in its own operations. Brockshus said they don’t shorten the overall growing cycle of a plant, but they do shorten the amount of time they spend in the greenhouse.

“That’s one of the biggest things that we’ve been focusing on to be as efficient as possible,” he said.

Moving plants, not people

Bailey has found additional efficiencies with its space by making relatively minor changes to some of its processes. Here in Oregon, Bailey has 10 acres of propagation greenhouses, all of which are individual quonset-story houses. The nursery used to move the crew and plants around to the end of each house, sticking into trays as they went in on conveyors and filled the greenhouses.

Now, however, Bailey operates a more centralized workspace in a line coming off the flat filler, with workers sticking cuttings into trays and then onto trailers, where the plants are taken to their respective houses. Essentially, Brockshus said, the people do not move; instead, the cuttings and equipment all go through the one designated workspace.

“The efficiency comes from not doing all of that moving and having a more streamlined, defined process,” he said. “We are still tweaking it and will improve it again this spring. One of the best things about the change is that the people and the unrooted softwood cuttings are all in a building, out of the sun, wind and rain. They’re much more comfortable and it’s easier to maintain the pace.”

Inventing a spacer to speed up work

A staff member at **Skagit** invented a three-sided piece out of PVC pipe that dramatically reduced the time needed to move flats. Before, staff had used empty flats to space plants when they are set down, which required time as well as the



strain of bending down. The PVC piece comes in different sizes that work for all the different flat configurations.

“We make them ourselves,” operations manager **Corey Hill** said. “It’s a very, very cheap solution and allowed us to increase overall daily production because do not have to slow down to the pace of setting down. We can go at the pace of picking up, which was much faster.”

The idea came from a staff member who worked at a different location, with different duties. It’s one more case of a fresh set of eyes spotting something others were too close to see.

“We purposely went and found someone who was intelligent and not afraid to speak up in front of a crowd, and made sure to add people like that to the group,” Hill said. “We got ideas from outside the normal echo chamber of what the ideas were before.”

The employee has since been made a Lean leader at Skagit, and proud to see his ideas in action.

Consolidating plug sizes

At **Peoria Gardens**, space is always at a premium, so the nursery made some changes to the plugs it grows to try and maximize the use of space, Verhoeven said.

Peoria grows most of its own plugs, and this year, the nursery stopped using its two smallest plug sizes, opting to grow the majority of its annuals in 288-cell plug trays.

In the short term, this creates more plug sheets, which are on the bench longer. For example, a 288-cell plug tray takes

longer to grow than a 512-cell tray and fits fewer plugs per sheet. But after transplanting, the trays of 288 are finished about a week earlier, according to Verhoeven, and that's where the gain in efficiencies comes in.

"At transplant, the square footage used by a crop increases dramatically," he said. "The savings in dollars per square foot per week far outweigh the extra cost in growing the larger plug."

Since this is the first season that Peoria has tried this model, it's too soon to know the outcome, but Verhoeven is optimistic.

"Right now, we are tight on propagation space in a way we haven't been before," he said. "Here's hoping those calculations are accurate and we will reap the benefits in finished square footage per week used."

Pre-racking container shrubs

It used to be that **Bailey Nurseries**

would hand-load all of its container shrubs onto trucks for shipping, but the company has been making some changes to improve that system. This spring, it's embarked on a revamp of its container shipping process that finds workers racking all container shrubs and some bareroot trees.

Before, employees would be ready to load a truck by hand in the morning. Unfortunately, the shipping world can be unpredictable and trucks would often show up late. Managers at Bailey would have to scramble to find people to either stay late or work overtime to get the job done.

Racking in advance of a truck's arrival doesn't do anything to add consistency to the shipping process on that end, but Brockshus said it gives Bailey more control on their side of the equation.

"Our time loading may not be any less as a whole, but we now have much more

control our end," he said.

Doing the container shuffle

Woodburn Nursery & Azaleas has devised a different approach to moving containers. It came about after general manager Tom Fessler and production manager Ron Schmidt visited Europe in 2009. There they saw a buffer belt, which arranged potted plants into multiple rows. The rows could then be grasped and lifted by specialized nursery forks.

This process inspired them to arrange their own trailers by forklift, instead of by hand. It used to take four people to do the job, but now takes two.

The forks come in different sizes for different sized pots and bed configurations. They are made in-house, and they are color coded by size so that the correct fork can be easily identified. >>

Need Poly Film? T&R's Got You Covered!

Ginegar's Advanced 5-Layer Poly Film Technology for Greenhouse Covers:

- Reduces dust on greenhouse covers
- Blocks IR to prevent heat loss
- Reduces frost damage
- Saves heating costs
- Maintains higher foliage temperatures and drier plants



Your area representative:
Courtney Lewis-Borts
503-951-3929

courtney.lewis@trlcompany.com

Ginegar Plastics now joins the T&R family of products



Outdoor nursery containers



Greenhouse film covers



Fill trays, handlers, inserts and flats, eco friendly products, and thermoformed pots



Polyethylene films



Greenhouse containers, baskets and trays



Landscape fabric, shade cloth, and frost protection



Thermoformed and injection molded trays, packs, flats, pots and hanging baskets



Propagation trays



T&R Company

Trust & Reliability for Over 40 Years

www.trlcompany.com

Your efficient nursery business

Alpha Nursery arranges caches of high-demand plants near the loading dock. This helps reduce repeated long trips across the nursery to retrieve individual plants for an order. PHOTO BY CURT KIPP

Minding the company store

A central precept of Lean is that transportation of product within the farm is wasted effort and should be minimized, though it never can be eliminated. The obvious solution is to minimize trips within the farm, or shorten their length. **Alpha Nursery**, however, has come up with a not-so-obvious solution — making each trip count.

The change came about in response to a change in the way customers place orders. They used to order a semi load at a time. “Now a lot of people have gotten away from that and order what they need, just in time,” Zielinski said.

This has reduced not just the size of the order, but the quantity of plants per selection. Alpha stocks 900 different plants in various sizes, and workers found themselves traveling to a far-flung corner of the

150-acre nursery to grab just one of something for an order. “We can’t grow 150 acres of material on 10 acres,” Zielinski said.

In response, Alpha recently started staging frequently-sold goods in strategic locations near the loading dock. These staging areas are internally referred to as “stores.” This system allows workers to move these goods in bunches, rather than one at a time. Items in the “stores” are pre-labeled and ready to ship.

“What we’ve tried to work on is like a supermarket, with a lot of plants close to the dock,” Zielinski said. “And then, we just have to keep stocking the market.”

It sounds inefficient to move plants that don’t need to ship yet. “But you get full trips,” Zielinski said. “You’re cutting down transportation time significantly. We’re

doing the work more on our terms. It’s internal.”

This “cache and carry” concept is a work in progress needing ongoing adjustment, but it is helping. “Every problem that was part of shipping, some part of it was alleviated by creating ‘The Store,’” Zielinski said. “I think we’ve got a lot of work to do to make it better. It would be sweet to put it in alphabetical order like the pick list is.” ☺



GET IN THE GAME

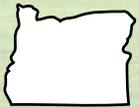


Join us at this year’s 29th Annual Duffers Classic and enjoy a morning on the golf course to support the **Oregon Nurseries’ Political Action Committee**. The stakes have always been high, and with issues like immigration, employment costs, pest issues and water supplies, the upcoming election cycle will certainly be no different. Your participation will help us elect legislators on both sides of the aisle who understand the nursery industry and who earn our support.

Thursday, June 7, 2018

Stone Creek Golf Club • Oregon City

Register today! www.oan.org/duffers
or call 503-682-5089

 **ONPAC**

Oregon Nurseries’ Political Action Committee





Ian Doescher

Ian Doescher is the Director of Nonprofit Marketing at Pivot Group, a marketing agency in Portland, Oregon. He can be reached at ian@askpivot.com.

Marketing efficiency

THIS IS THE EFFICIENCY ISSUE of *Digger*, so I'm joining the party to talk about efficiency in marketing. By that I mean ways you can do more with less: less time, less money, fewer resources and so on.

You may be expending too much time, effort or money. Here are a few simple suggestions for ways to be more efficient in your marketing efforts:

1 Review what is working and what isn't. Take a close, critical look at all of your marketing efforts with an eye toward removing the least effective items. This can be a hard process because sometimes we run across items in our marketing budgets that have been there for decades, without ever questioning why. When was the last time the Yellow Pages ad generated business for you? Are you better off spending that money elsewhere, perhaps on targeted Facebook ads? Reviewing your current materials and their effectiveness can help you have a more efficient marketing budget.

2 Streamline your regular communications. Are you currently sending out a monthly newsletter, weekly emails, and daily Facebook posts to try to keep your audience engaged? If so, well done! And yet, this may be a good opportunity to reduce the time you spend writing regular customer communications. Do you need to send a weekly email, or could the same information be sent every other week? Do your customers rely on a monthly newsletter, or would quarterly work equally well? There is a balance here, of course; I would never recommend stopping a communication tool that is truly effective. But the

odds are that — in conjunction with the kind of review I propose in suggestion above — you'll realize you can cut down on some of your regular communications.

3 Aggregate your social feeds. If you maintain several social media pages at once, don't feel like you need to have unique content on every channel. It's wonderful if you do, of course, but most business owners I talk to aren't saying, "Wow, I just have so much content and not enough places to put it." Instead, what I tend to hear is, "How do I come up with something to post every day?" Let one post do the work across multiple channels. Services like Hootsuite or Hubspot let you easily post messages to multiple social media channels at once (and schedule them in advance, too). Save yourself time and stress by using the same post on a couple of channels.

4 Go back to the well. When it comes to creating marketing materials, you can improve your efficiency by not reinventing the wheel. If you had a great design for an ad and you're making a postcard next, don't redesign it. Instead, just 



Healthy plants, healthy profits.

Cody Plath
CPS Cornelius Branch
Office: 503-640-2371 Fax: 503-640-5973

OBC NORTHWEST, INC.
Nursery & Greenhouse Supplies

800.477.4744

1076 SW Berg Parkway
Canby, Oregon 97013

obcnw.com



Dosatron Injectors

Non-Electric Proportional Fertilizer Injectors: 14 -100 GPM

- Automate hydroponics nutrient mixes
- Deliver precise results
- Easy to use and maintain with no reservoirs
- Parallel installations inject multiple nutrients in a single water line

Greenhouses

Semi-Gable, Semi-Quonset, and Gutter Connected

Clear and blackout poly film, shade cloth, privacy screen, single and double wall polycarbonate, heaters, exhaust fans, circulation fans, soil mixes, and more supplies to grow with.

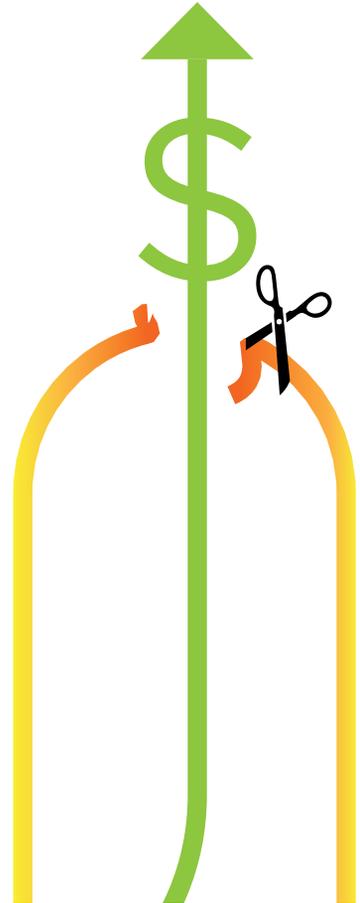
Everything You Need to Grow

- Bamboo
- Burlap
- Containers
- EarthPots
- Fertilizer
- Soil
- Ground Cover
- Hardware
- Label Printers
- Poly Film
- Shade Cloth
- Twine
- Tye Tapes
- Wire Baskets
- Greenhouse Supplies



Licensed & Bonded • License #127055 (OR) • OBCNO1 H022CR (WA)

PIVOT POINTS



adapt your original design. If the copy you wrote for your radio ad works just as well for your website, use it. If you had three good ideas last time you brainstormed and only used one, use one of the other ideas.

5 Keep your copy simple. “Brevity is the soul of wit,” said Polonius in William Shakespeare’s *Hamlet*. The U.S. Navy put it less poetically: “Keep it simple, stupid.” When it comes to efficiency, start with your language. Don’t clutter your sentences with unnecessary words, flowery adjectives or unnecessary pronouns. “The beautiful plants that the adoring people love are now on sale” is as equally well expressed as, “The plants people love are on sale now.” (For inspiration, play with the slider on getcoleman.com.)

One final caveat: When it comes to marketing, effectiveness beats everything — including efficiency. But marketing efficiency is a worthy goal, and taking some of the steps above is a good start. ☺



Money efficiency

These tips will help growers spend their business dollars wisely

BY CAROL SURUKI-CARMANY, CPA

AS A BUSINESS OWNER, you want to spend your money on what provides true, long-term business value. Because nurseries can rely heavily on cash flow to keep their operations running, it's important to understand where your money is going and plan for your capital investments.

Here are some ways to determine if you're efficiently utilizing your company's cash:

Know your numbers

Many nurseries overlook balance sheets when they're actually one of the most important pages of the financial statements. A balance sheet can provide a basic overview of a nursery's financial health, a snapshot of its stability, and a roadmap for future decisions.

Balance sheets include a detailed

summary of assets, liabilities, and equity. Assets are defined as probable future economic benefits obtained or controlled by a particular entity as a result of past transactions or events. Liabilities are probable future sacrifices of an entity's economic benefits. The sacrifices arise from an entity's future obligation to provide assets or services to other entities as the result of past transactions or events.

Not all liabilities are satisfied by assets. Sometimes, liabilities are satisfied through performance of services. Assets — including cash accounts — and liabilities are divided into short- and long-term resources and obligations, respectively.

Performing regular maintenance to your balance sheet is key to achieving your nursery's business objectives. Balance sheets can reveal how efficiently a company is using capital and managing risks.

Ideally, you should review your balance sheet on a monthly basis. If that isn't possible, it's important to review it at least once each quarter.

The stronger your balance sheet is — that is, the more the assets exceed the liabilities — the more likely your business will be to capitalize on future opportunities, grow sensibly and weather unforeseen challenges.

Reforecast before you spend

Savvy finance teams regularly use a reforecasting process to stay on top of multi-year projected financial results. Due to the long cycles of the nursery businesses, this is typically a five-year rolling forecast. Reforecasting is a process of factoring your actual to-date results, followed by projecting the balance of the fiscal year to determine expected full-year results. ➤

Owners typically go through this process on a monthly or quarterly basis and simply add actual year-to-date results to the remaining budget. However, while updating your budget with actual year-to-date financial information is a fast process, it doesn't provide the important benefits that come from examining the remaining future projections.

After examining the projections, you can fine-tune them to more accurately reflect current and anticipated business conditions and take the to-date budget-to-actual performance into account.

The suggested approach is to examine the remaining budgeted projections and fine-tune these forecasted results to more accurately reflect current and anticipated business conditions.

Reforecasting provides you with numbers that are both up-to-date and more refined, which provides the opportunity for better planning and earlier course correction.

Invest in people

People are vital to your business's success. Investing in your most important assets may seem like a no-brainer, but it goes deeper than just giving raises or bonuses.

As you're determining your business's future goals, start identifying gaps in your current team and determining how you can fill those needs while putting together

your business's forecast. Start by filling missing roles and investing in your current high-performers by developing future positions within your business. Leadership can then help identify which elements of each position are most important and determine any necessary changes in compensation.

The board is also responsible for helping develop a strong management team and determining potential leadership successors. Specifically, boards should address CEO and top-executive succession planning, considering both internal and external candidates.

During this comprehensive process, leadership should understand and be able to provide advice on the leadership development programs available for all employees. These programs are a critical aspect of preparing for appropriate succession throughout the business.

Consider your IT environment

Many nurseries aren't making use of new information technology (IT) advancements that could enhance their efficiency and help their businesses operate more effectively.

Integrating technology requires a clear understanding of how your business is currently operating as well as a solid plan for implementing improvements moving forward.

Before investing in new IT systems,

you can start with something simple like an IT assessment. This process can help you determine how systems, infrastructure, staffing, practices, and procedures can better meet your business's present and future needs. It can also help you evaluate your current IT environment and focus on priorities.

Next steps

Using successful budgeting elements can solidify the connection between operations and finance, strengthen communication between department heads, and improve decision making. When combined with regular forecasting and reforecasting, nurseries and their management teams can better anticipate events and control their business. ©

Carol Suruki is the food, beverage, and agri-business partner at Moss Adams. She has practiced public accounting since 1991. She specializes in providing assurance services to middle-market clients that sell products to retail and distribution channels, including e-commerce, grocery, mass, club, spas, and hotels. She can be reached at 818-577-1916 or carol.suruki@mossadams.com.

Assurance, tax, and consulting offered through Moss Adams LLP. Investment advisory services offered through Moss Adams Wealth Advisors LLC. Investment banking offered through Moss Adams Capital LLC.

AQUATIC BIOTICS
Biological Pond, Lake & Fountain Treatment
 All Natural Biologic for Healthy, Clear, Pond Water...
SAFE TO FISH, PLANTS & OTHER AQUATIC LIFE!

100% ALL NATURAL!
 Contains...
 Bio-plex™
 Cultured Beneficial Bacteria & Enzymes
 100% Safe & Effective.

BENEFITS: Improve & Maintain Water Clarity & Quality • Promotes Healthier Fish, Plants & Other Aquatic Life • Effectively Breaks Down & Prevents Dead Algae, Organic Sludge, Scum, Sediment, Leaves & Much More • Eliminates & Prevents Noxious Odors From Algae, Fish Food, Excrement & Nutrient Build-Up • Promotes Superior System Filtration Functions.

NATURAL PEST SOLUTIONS
Are Repellent Failures Frustrating You? **DON'T GIVE UP**

Keep deer, rabbits, moles, voles, insects and woodchucks away from plants!

YES! REPELLENTS That Really Work!
 Natural Pest Solutions
 1 GALLON CONCENTRATE BOTTLE & 48 OZ. RTU BOTTLES

- Woodchuck & Rodent Solution
- Deer Solution
- Tick & Flea Solution
- Mosquito Solution
- Plant Solutions

TRANSPLANT CONCENTRATE
PLANT ENHANCER

REDUCES PLANT MORTALITY

Use... (1) Where Plant Decline or Failure is NOT an Option! (2) To Successfully SUMMER-DIG, INSTALL, or MAINTAIN Ornamentals under Hot, Harsh, Severe & Adverse Conditions.

Concentrated Bio-Stimulant Root Drench...
 Seakelp-Humic-Vitamin & Enzyme Complex

1. Reduces stress symptoms
2. Greatly improves moisture retention
3. Speeds fibrous root mass formation
4. Critical for Successful "Summer Digging"
5. Rehabilitate declining plants
6. Helps plants survive hot, dry conditions

RELIABLE, EFFECTIVE, INEXPENSIVE PLANT SURVIVAL INSURANCE!
 "Using Bio-Plex with our plantings has reduced our need to replace plants by 90%. In one instance Bio-Plex made us \$10,000!"
 -Legend Landscaping

TREE RING™
 Makes every drop of water count!

Regular Size 25 gallons
 Junior Size 10 Gallons
 Compact... Nest for easy storage.

PLUMLEE NURSERY PRODUCTS

503.985.7932
 joy@plumleenureseryproducts.com
 Available at: Marion Ag

CLASSIFIEDS

1. Select Standard or Display Classified formats.
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 ad runs.
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, May 10 for the June issue.
7. We bill after publication.
8. We reserve right to edit ads for content.

Classified Line Ad

- \$35/column inch for OAN members / \$55 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.

Classified Display Ad (plus production charges @ \$69/hour)

- \$45/column inch for OAN members / \$71 for nonmembers.
- Use logos, display type, borders, screens or reverses.
- Electronic ad files can be supplied. Call for production details.

Digger Classifieds

29751 S.W. Town Center Loop W., Wilsonville, OR 97070
Phone 503-682-5089 • Fax 503-682-5727 • Email: advertising@oan.org

EMPLOYMENT

SALES MANAGER

Adapt8, a leading design, manufacturer & designer of greenhouses and agricultural products throughout the US and the world, is looking to hire a strong Sales Manager. Adapt8 is a second-generation family business with a reputation as a leader, innovator, and green company in this rapidly growing, increasingly important industry.

Adapt8 (aka Adaptive Plastics, Inc. or API), is the inventor of Solexx, a superior greenhouse covering with unusual qualities that grow healthier, larger, and earlier producing crops. Adapt8 sells in all 50 states and in over 20 countries. Adapt8 is changing the way the world grows food with innovative products for agricultural, gardening and industrial uses.

The Sales Manager position has a potential for growth due to Adapt8's significant growth plans, including expanded sales and marketing efforts. The successful candidate will seek to grow their own skills and to take on greater responsibilities as the company grows.

As a family-managed company, Adapt8 values its employees and is applying for B Corp certification this year. Our employees are comfortable both in the office analyzing industry and internal reports as well as in the greenhouse growing crops. We offer excellent benefits.

For more information about Adapt8 and the Sales Manager position, see our website at www.solexx.com/blog.

FLOWER BULB AND PERENNIAL SALES POSITION

Clackamas, Oregon Flower Bulb Facility
Fred C. Gloeckner & Company

For a full job description and details on how to apply, please go to our website, under the employment tab. www.fredgloekner.com/employment.html

EMPLOYMENT

GROWER/FARM ASSISTANT

Wholesale deciduous tree nursery located in Milton-Freewater, OR is seeking a full-time, experienced grower/farm assistant. Must be hands-on with experience in planting and growing trees. Experience in vineyard and/or fruit tree growing also considered.

Applicant must be fluent in Spanish and English and have proven supervisory management skills. Ideal candidate will be self-motivated and quality-driven, be honest, a team player, trustworthy and possess a high work ethic. Horticultural education and/or 5+ years work related experience is preferred.

Valid driver's license required. Assistance with moving expenses will also be considered. Wage DOE with full company benefits.

Mail, fax or email resume to:

J. Frank Schmidt & Son Co.
Attn: Human Resources
PO Box 189, Boring, OR 97009
Fax: (503) 512-2209
Email: dianar@jfschmidt.com



NURSERY OFFICE SUPPORT

Our wholesale/retail nursery in beautiful southern Oregon is in need of an office support staff/manager. We are busier than ever and need assistance with answering the phone, invoicing, estimates, customer service, labeling plants and more.

Organization and strong knowledge of trees, shrubs, and perennials is a must. Pay and position is dependent on experience. Check out our website at www.roguevalleynursery.com to see if our wonderful team is right for you and then email your résumé to info@roguevalleynursery.com

EMPLOYMENT

MERCHANDISERS

Merchandisers needed to assist with daily maintenance of outdoor garden plants at multiple store locations for mid-sized wholesale grower in Portland. Duties include watering, moving, consolidating and cleaning of plants and display areas. Also assisting with building tables, displays, monitoring plant signage and answering customers' plant questions.

Must be reliable and detail-oriented, able to work independently and as part of a team. Must also be enthusiastic and dedicated, self-starters, who enjoy working with plants and are willing to learn. Experience in retail or wholesale nursery industry is desirable, but not necessary. Valid driver's license and working cell phone are required. Must be able to communicate in English.

Please send your resume and cover letter to DiggerJobs@oan.org with **Blind Box A** in the subject line.



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@loonnursery.com to the specific job for which you qualify.

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

EMPLOYMENT

HORTICULTURIST

Iseli Nursery, a producer of container & field-grown Conifers & Japanese Maples, is accepting applications for the position of Horticulturist. This is a management level career position that involves interaction with all of our Production departments. You will train with our current Horticulturist to gain experience with our crops & protocols.

You must be able to emphasize team over self, be self-motivated & able to plan ahead & have common sense about people. You must be attentive to details, safety-focused, solutions-oriented & possess honed communication skills.

Additional Qualifications:

- Degree in horticulture or related field preferred.
- Knowledge of weeds, pests and diseases preferred.
- Ability to plan, coordinate and supervise appropriate methods of pest control.
- Experience with operating spray equipment safely and efficiently.
- Currently licensed as, or able to obtain, an Oregon Private Applicators license.
- Familiar with Worker Protection Standards.

In addition to salary, this position provides medical benefits, paid vacation and holidays, sick leave, disability insurance, 401K with matching employer contribution, 125 flex plan, a positive work environment. Salary DOQ.

Candidates may send a cover letter and resume to:

Maureen Coombs – Iseli Nursery
Human Resources
mcoombs@iselinursery.com
(503) 663-3822 (ext. 231)



**CONTAINER SHIPPING FOREMAN
YAMHILL, OR**

This position is responsible for accurate and efficient order assembly, tagging and loading of container plant material and would serve as a link between the Container Shipping office and the loading dock. This person would work closely with inventory and production to make sure the department is on track to meet daily goals. This position reports to the Container Production Manager.

Duties will include but are not limited to:

- Monitoring the progress of the department throughout the day to ensure it is on track to reach daily goals.
- Insure quality and accuracy of orders.
- Work closely with crew leaders of quality control, order pulling, tagging and loading to monitor progress, and insure efficiency.
- Communicating as necessary with other departments, especially Production, Sales and Inventory.
- Constant communication with Tag prep and Shipping office.
- Tracking labor and efficiency (pulling, loading, etc.).
- Using measurements to help forecast daily labor needs.
- Printing and preparing load paperwork.
- Fulfilling orders.

Requirements for position:

- Strong organizational skills.
- Must have strong communication skills and the ability to be extremely flexible in regards to planning and organizing.
- Ability to lead, train and develop people.
- Bilingual in English and Spanish preferred but not required.
- Basic computer skills and ability to learn all aspects of the computer system as it relates to the shipping department: Printing load paperwork, fulfilling orders, data entry, printing various reports, printing tags, etc.
- Willing to work under inclement weather conditions.
- Willing to work extended hours – start early or stay late as needed.

To apply:

This is a full-time, Foreman-level position that includes benefits. Wage DOQ.

Apply with resume and letter of interest to:

Brian Bowman
Bailey Nurseries Inc.
brian.bowman@baileynursery.com

**CONTAINER PRODUCTION
FOREMAN
YAMHILL, OREGON****Job Description:**

This job is responsible to supervise and coordinate all container-growing operations under the direction of the Container department head.

Duties:

- Coordinates all production teams involved in container shrub, evergreen and rose production.
- Supervises all daily production crew activity.
- Identify plant problems and take appropriate actions to maintain product quality.
- Insure that company policies and safety rules are followed at all times.
- Assist with the development of departmental material, labor and capital budgets.

Requirements:

- Relevant horticulture experience that includes knowledge of ornamental plant material, chemicals and labor management.
- Ability to operate and maintain a variety of farm equipment.
- Ability to communicate with all levels of employees. Bilingual in Spanish is highly desirable.
- Ability to train, supervise, evaluate and coordinate the activities of multiple production crews.
- Ability to keep accurate and detailed records – computer use is required.
- Valid Oregon drivers license with insurable driving record.

To Apply:

This is a full-time position that includes a competitive benefit package. Wage DOQ. Interested applicants should apply with a resume and letter of interest to:

Brian Bowman, Bailey Nurseries Inc.
9855 NW Pike Road
Yamhill, OR 97148
brian.bowman@baileynursery.com

**PRODUCTION MANAGER
VILLAGE NURSERIES
SACRAMENTO, CA**

Village Nurseries is seeking a Production Field Operations Manager to oversee all aspects of operations for a 250-acre growing facility in Sacramento, CA. The manager will be responsible for managing field laborers, improving efficiency and productivity of workforce, and growing quality plant material (trees, shrubs, color, vines, and native plants).

Interested parties should email resume to Mark Marriott at mmmariott@villagenurseries.com

**PLANT HEALTH SPRAY
APPLICATOR**

Wholesale nursery seeking a pesticide applicator in our plant health department. The qualified applicant must have the ability to work in a team environment and communicate with various management levels both written and verbal.

Horticultural or agricultural experience and an Oregon Certified Pesticide Applicator License (or ability to acquire) preferred. Bilingual in English/Spanish a plus.

Required Skills or Qualifications:

1. Ability to measure/calibrate solutions for spray equipment.
2. Knowledge of tractor/equipment/sprayer operation.
3. Basic knowledge of insects, weeds, disease in nursery crops.
4. Basic understanding of economic thresholds for application justification.
5. Must be able to work independently and be available for working evenings/weekends if necessary.
6. Oregon Certified Pesticide Applicator License (or ability to acquire)
7. Knowledge of Worker Protection Standard and Employee Right to Know requirements (Hazardous Communication Program)
8. Pass internal safety training
9. Basic computer skills helpful
10. Valid driver's license with insurable driving record.

Compensation: This is a full-time position and includes full benefit package, pay DOE.

To Apply: Please submit resume and letter of interest to

Abigail Garcia,
Bailey Nurseries, Inc.,
18616 NW Reeder Road,
Portland, OR 97231.
Email:
abigail.garcia@baileynursery.com.
Phone: 503-621-9710 Ext: 101

NURSERY SALES REP

Oregon wholesale nursery in Washington County seeking a sales representative to join our team for inside sales. Qualified candidates will have sales experience with a knowledge of plants and their growing cycles desired. Position would be responsible for all sales and customer service in an assigned territory.

We are looking for a team player to continue to grow our business. Compensation: Base salary plus commission.

Please email your resume to DiggerJobs@oan.org with **Blind Box B** in the subject line.

SPRAY APPLICATOR SUPERVISOR

J. Frank Schmidt & Son Co. is looking for an individual to operate agricultural farm equipment and apply pesticides. Must be able to communicate in English and either have or obtain private pesticide applicators license within six months of hire. Will supervise and train workers in safe working practices around chemicals and equipment hazards.

Requires proficiency in the working maintenance and operation of all tractors, sprayers, and equipment used in pest management. Must be able to work independently without close supervision and observe all safety requirements. Horticultural plant knowledge and mechanical abilities a plus. Comprehensive employee benefit package. Salary commensurate with experience.

Mail, fax or email resume to:
J. Frank Schmidt & Son Co.
Attn: Human Resources
PO Box 189, Boring, OR 97009
Fax: (503) 512-2209
Email: dianar@jfschmidt.com

**HELP WANTED**

For jobs and key employees throughout California and the Northwest, call Florasearch, Inc. You know us. For more than three 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
Website: www.florasearch.com
Email: search@florasearch.com

**NURSERY FIELD PRODUCTION
SUPERVISOR**

Qualified candidates will have 3 or more years of nursery experience with skills to effectively manage crews in all aspects of field production tasks: pruning, grading, shipping, field prep, irrigation, mechanical field harvest, etc. Private applicator's license is required. Bilingual (Spanish) desirable. Comprehensive benefits. Send resumes to slunceford@countrysidenursery.com

BAMBOO

GARDEN

Specimen size
BAMBOO
 over 30 feet tall
 available



- **Clumping Bamboo**
- Large diversity
- Quality wholesale plants
- We carry bamboo barrier
 HDPE 30" x 60 mil
 Controls running bamboo
 (503) 647-2700
www.bamboogarden.com
bamboo@bamboogarden.com

SCHURTER NURSERY

Arborvitae - Emerald green
 Container-grown Boxwoods
 Green Giants
 Otto Luyken • Skip Laurel

Various Sizes & Varieties
503-932-8006



**Bareroot & Container Grown
 Understock & Rooted Cuttings**

Bareroot Seedlings

Acer, Amelanchier, Betula, Cercis, Malus,
 Populus, Prunus, Pyrus, Zelkova

Rooted Cuttings

Acer rubrum, Betula, Platanus, Prunus & Ulmus

Band Pot Grown

Acer, Carpinus, Cornus, Fagus, Liquidambar,
 Nyssa, Quercus, & Syringa

Over 175 Varieties

Salem, Oregon 1-877-490-7844
jlpnliners.com • info@jlpnliners.com

OREGON GREEN MOSS

A cheap way to keep plant
 soil moist, cool and colorful.

- Soil cover in pots
- Lining for hanging baskets
- Filling wire forms for topiaries

Contact:
Ed@WillametteEvergreen.com
 or visit
www.WillametteEvergreen.com

CLEARWATER GROWERS

ROOTED CUTTINGS / PLUGS:

Carex; Deschampsia caespitosa;
 Juncus; Scirpus;
 Thuja o. - 'Emerald Green'

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; Prunus - 'Schipkaensis';
 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; Polystichum munitum;
 Rubus; Sarcococca; Vinca

Custom Propagation Available

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

**HICKENLOOPER GARDENS
 We have a lot to offer!**

Specializing in:

Hosta
 Winter Jewels Hellebores
 Hardy Fuchsia
 Heuchera
 Ferns

Contact us for an availability list.
www.hickenlooper-gardens.com
 Phone: 503-949-5723
 Fax: 541-327-2011
benhickenlooper@icloud.com

Ground Covers

**PACIFIC CREST
 GROUNDCOVERS, INC.**

Kinnikinnick, Fragaria,
 Gaultheria, Mahonia,
 Liriope, Vinca and more.
 3.5" and #1's.

Call or email for availability list:
 503-784-4925 or
pcgroundcovers@gmail.com
 10895 S. Heinz Rd,
 Canby, OR 97013



**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
 Nursery**

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

Liners



GRAFTED LINERS

100 Varieties of Maples
Fir, Cedar, Cypress, Larch,
Spruce, Pine, Sequoia

**WINDY RIDGE
 NURSERY**

1918 SE 302nd Avenue
 Troutdale, OR 97060

503-667-7037

Fax: 503-661-7315
 Availability on website
www.wrntrees.com

LINERS AVAILABLE

Grown in Anderson BP's
 Green Mountain Boxwood
 Hicks Yew
 Blue Maid Holly
 Skip Laurel
 Portuguese Laurel
 European Beech
 500+ \$1.50ea
 2500+ \$1.25ea
Phone: 503-874-4123

Northwest Natives



**BEAVERLAKE
 NURSERY**

**Native, Wetland
 and
 Ground Cover
 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.beverlakenursery.com

Rhododendrons

BIG RHODODENDRONS

Acres of rhododendrons –
 instant privacy available.
 5'-10' (make offer).
 Also in cans.

Hidden Acres Nursery

19615 SW Cappoen Rd.
 Sherwood, OR 97140
 503-625-7390

www.hiddenacresnursery.net

Rootstock

**PREMIUM QUALITY
 OREGON ROOTSTOCK**

THE FOUNDATION
 OF YOUR ORCHARD
 STARTS HERE!

TRECO®

Oregon Rootstock & Tree Co. Inc.
 P.O. Box 98
 Woodburn, OR 97071
www.treco.nu

p: 1.800.871.5141
 f: 503.634.2344

**Hiring?
 Work with us!**

Digger magazine employment classifieds are THE go-to resource for skilled nursery professionals in search of their next opportunity – and companies in search of the perfect team member. To place an ad, contact Blair Thompson at 503-682-5089 or ads@oan.org. View ads online at www.oan.org/jobs.



PLANT MATERIAL

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

Are you looking to save on office supplies? OAN members can receive discounts, free shipping and next-day delivery on office supplies.* Contact dhopkins@oan.org for details.

**The OAN participates in Staples Business Advantage®. Free shipping and next-day delivery available for some purchases more than \$50. Visit www.oan.org for details.*

PLANT MATERIAL



CopenHaven Farms Nursery

*Quality Oregon-Grown
 Rootstock & Seedlings
 for Fruit, Flowering
 & Shade Trees*

Call:
 503.985.7161

Fax:
 503.985.7876

www.copenhavenfarms.com
copenhavenfarms@comcast.net
 Gaston, Oregon

**CLASSIFIED ADS
 WORK!**

Call us: 503-582-2012

SERVICE/SUPPLY

USED NURSERY SHADE CLOTH

Approx. 360,000 sq. ft. in Newberg, Oregon. Stock size 20'x100' & 20'x200', shade range 30% to 50%.

Please call 503-880-5820 for availability & pricing.

Containers

**ROOT CONTROL
 GROW BAGS**

from High Caliper Growing Systems
 Smart Pots - Any Size
 Pot Pruners - Tree Collars

1-800-521-8089
www.treebag.com

**NEW & USED
 NURSERY CONTAINERS**

7 Gallon (500+)
 5 Gallon Tall (10K+)
 1 Gallon (50K+)

5"sq/2qt (25K) NEW & USED
 6" Green Azalea pot (30K) NEW
 4"x10" Anderson band pot & trays (25K) NEW & USED.
 Call or text 503-580-4470

SERVICE/SUPPLY

POTS AND FLATS

7700	1.78 X 5" band pots	\$.03 ea.
31000	2.78 X 6" band pots	\$.04 ea.
1200	4" pots	\$.05 ea.
9000	1 gallon	\$.10 ea.
575	2 gallon	\$.65 ea.
1700	Anderson Flats	\$.75 ea.

dave@peaceofmindnursery.com
 503-949-4944

Tools

POT HANDLING TOOLS

Do you move plants? Then you need Deluxe Can Handlers. Save money & increase worker productivity.

Order today at deluxetrees.com

AD INDEX

AAA Mercantile	37
Anderson Die & Mfg. Co. Inc.	9
BCS America	3
Biringer Nursery.....	18
Crop Production Services.....	26
D-Stake Mill Inc.	36
F & L Lumber Inc.....	18
GK Machine.....	21
Hostetler Farm Drainage.....	37
Kubota	17
Lane Forest Products	11
Leonard Adams Insurance	6
Marion Ag Service Inc.....	19
Marr Bros.	36
McPheeters Turf Inc.	37
Motz & Son Nursery	37
Nelson Irrigation.....	12
OBC Northwest.....	26
OHP Inc.....	2
OAN	5, 24, 39
Oregon Valley Greenhouses	35
Peters Company.....	15
Plumlee Nursery Products.....	28
Reardon Nursery.....	19
Rickel's Tree Farm.....	37
Schurter Nursery	37
Spring Meadow Nursery Inc.	40
T & R Company.....	23
Weeks Berry Nursery	34
Willamette Nurseries	11

**3 WAYS TO
 SUBSCRIBE TO**

Digger

PHONE

503-682-5089

ONLINE

**[www.oan.org/
 publications](http://www.oan.org/publications)**

EMAIL

info@oan.org



GROWING KNOWLEDGE

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



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

Optimum watering schedules for Oregon home lawns

BY CONNER OLSEN AND ALEC KOWALEWSKI

IN TIMES OF DROUGHT, outdoor water-use restrictions are most often focused on landscape water use, and implemented in terms of the number of days per week for which watering is allowed. This method, although effective at reducing water use, neglects to consider ideal irrigation frequency for maintaining the health of specific plant species.

Landscapes heavy in low-growing, shallow-rooting groundcovers, such as turfgrass, require more frequent irrigation than landscapes full of woody, deep-rooting plants. For this reason, plant-specific irrigation requirements should be considered when establishing guidelines for water-use restrictions.

While modern irrigation systems can be incredibly efficient, many homeowners and property managers with advanced systems are guilty of over-irrigating, largely due to the inefficient use of timers. Timers are often unaltered following the installation of optimal-efficiency sprinklers, resulting in little, if any, water savings. Schedules that are based on summer irrigation requirements will inherently over-water in the spring and fall.

Claims have been made that deep-and-infrequent irrigation practices will deepen the root zone of turfgrass plants and improve drought tolerance. However, the densest stands of grass are most often found on golf courses where irrigation is applied daily. Region-specific field studies should be conducted to identify proper irrigation techniques to promote acceptable turfgrass quality during periods of drought,

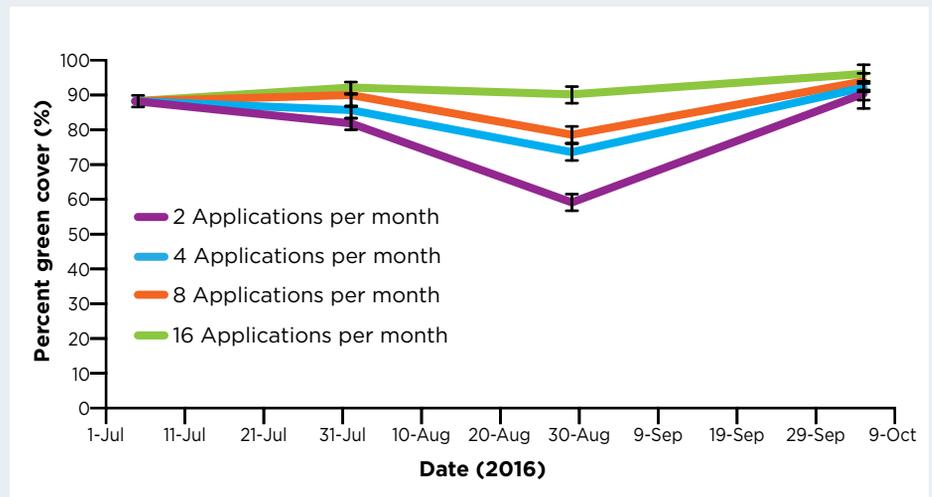


Figure 1: Effect of irrigation frequency on percent green cover over the 2016 summer season in Corvallis, Oregon. Turfgrass consisted of a perennial ryegrass blend maintained at 5.1 cm. Values are means (n = 20) and 95 percent confidence intervals estimated using Fisher's projected least significant difference test.

while using as little water as possible.

The goal of this study was to identify the optimal irrigation rate and frequency for perennial ryegrass management in the Willamette Valley. The intent/purpose was to determine minimal watering rates that still provide acceptable turfgrass quality throughout the dry summer months experienced in the cool-humid Willamette Valley.

Materials and methods

This study applied irrigation — ranging from 5.1 to 10.1 cm per month; or 0.5 to 1.0 inch per week) — at five frequencies (2, 4, 8, and 16 applications per month) to lawn-height (5.1 cm) perennial ryegrass (*Lolium perenne*) in the

Willamette Valley of Oregon, in an effort to determine minimal watering rates that will still provide acceptable turfgrass quality throughout the summer months.

A two-year field trial was initiated in July 2016 and concluded in September 2017 on native soil at the Oak Creek Center for Urban Horticulture, Corvallis, Oregon. Experimental design was a 2 by 4 by 5 factorial in a randomized complete block design with four replications. Factors included year, irrigation intensity, and irrigation frequency.

Irrigation was applied as the schedule prescribed from July through September of 2016, and again from July to September of 2017. ➤

Optimum watering schedules for Oregon home lawns

Findings

The highest irrigation frequency (16 applications mo^{-1}) consistently produced the greatest turf color, density, percent green cover, and soil moisture throughout the study period in both years (Figure 1).

The lack of root-zone storage amongst perennial ryegrass cultivars (i.e., no rhizomes and a relatively shallow rooting depth), combined with the severity of summer drought conditions in the region (sometimes four consecutive months), as well as the relatively low mowing height used in this study (which produced a shallow root zone and decreased overall plant mass), were all contributing factors to the results of this study.

Over two years, it was shown that acceptable-quality turfgrass was provided through applying 8.9 cm mo^{-1} (Figure 2). This was achieved through light-and-frequent irrigation applications (at least twice per week, with four being better than two).

As these findings suggest, recommendations for the Willamette Valley should incorporate higher frequency of applications, along with the caveat that the “inches per week” recommendation is sufficient for peak water demand, but, in the name of water conservation, schedules could — and should — be reduced in the early and late summer when evapotranspiration (ET) rates are less.

While this study was designed to determine optimal irrigation rate and frequency, major concerns still exist regard-

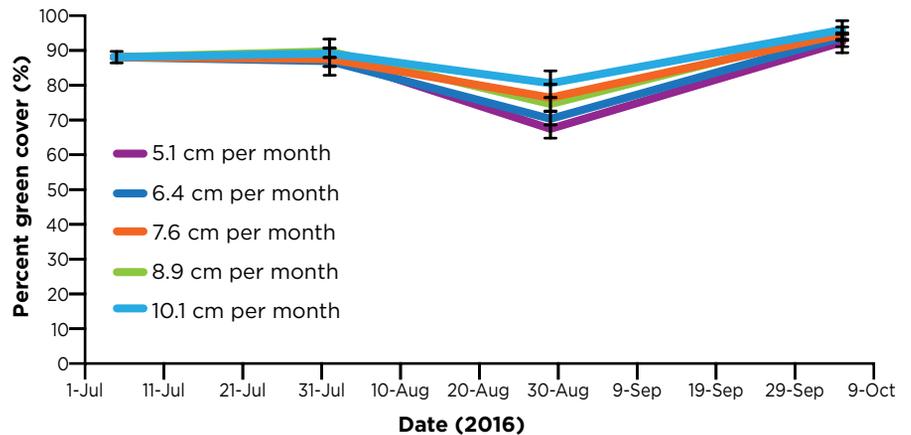


Figure 2: Effect of irrigation intensity on percent green cover over the 2016 summer season in Corvallis, Oregon. Turfgrass consisted of a perennial ryegrass blend maintained at 5.1 cm. Values are means ($n = 16$) and 95 percent confidence intervals estimated using Fisher's projected least significant difference test.

ing irrigation distribution non-uniformity and improper use of timers — with irrigators too-often resorting to bumping up their application rates to account for poor uniformity or increased expectations. Improving irrigation distribution uniformity, along with optimizing irrigation rates and frequencies by species and region, could have a tremendous impact on water-use worldwide. ☺

Conner Olsen is a graduate student at Oregon State University. Alec Kowalewski is an assistant professor at Oregon State University. He can be reached at alec.kowalewski@oregonstate.edu.



Image 1: $\frac{1}{4}$ " applied 4 x per week from July 4 to September 1, 2016,



Image 2: 1" applied once a week from July 4 to September 1, 2016.

SINCE 1908

WEEKS
berry nursery

6494 Windsor Island Rd N
Keizer, Oregon 97303

Strawberries
Raspberries
Blackberries
Grape Vines

503-393-8112
Fax: 503-393-2241
www.weeksberry.com
plants@weeksberry.com

Blueberries
Asparagus Roots
Rhubarb Roots
And Much More!

SMALL FRUIT SPECIALIST
The Very Finest Quality!

Call or Write Today!

(Continued from page 35)

the attempt to counteract any benefit from the federal bill by reaching into the pocketbooks of nurseries and other small business owners.”

The OAN will support the tax break for sole proprietors in the June special session. The governor can call a special session on her own, but to make it a one-day session will require a waiver of normal rules with support from both parties.

“It’s nice that Gov. Brown cares for the sole proprietors,” Stone said. “I’m glad they will get some relief.”

WILBUR-ELLIS DEVELOPS NEW PRECISION SPRAY AGENT DILIGENCE-EA™

Wilbur-Ellis Company, an international marketer and distributor of agricul-



tural products, has added a new adjuvant to its existing line of products. Diligence-EA™ with Accustrike™ Technology is a deposition aid and drift reduction agent for most fungicide, herbicide and insecticide ground-spray applications. Without a noticeable change in droplet size, the water-based adjuvant holds a uniform spray pattern for growers applying agricultural chemicals to their plant material.

The product works with backpack and handheld sprayers as the last item added to a tank’s mixture. As a tank’s

solution passes through a spray nozzle orifice, the small Diligence-EA™ particles uniformly perforate the spray solution, allowing droplets to cleanly break away and hit the target. The clean break allows for the deposit of more active ingredients to intended plants with minimal spray drift — ejecting from nozzles with spray droplet fines less than 105 microns.

“With this new technology, we have successfully minimized drift-related fines while spraying and, at the same time, maximized the spray deposits of the



SPRING SALE

Widths	Percent	Cost per sq ft
12'	50%	\$0.10
26', 32'	30%, 40%, 50%	\$0.10
40', 48', 50'	30%, 40%, 50%	\$0.12
36', 56'	50%	\$0.12
56'	40%	\$0.12
12', 32'	60%	\$0.12
40', 48'	60%	\$0.14
12', 26', 32', 48'	70%	\$0.15
12', 26', 48'	80%	\$0.16

Motorized Shutters

24" ACP ... \$155.00
 30" ACP ... \$165.00
 36" ACP HD... \$395.00
 42" ACP HD... \$455.00
 48" ACP HD ... \$525.00

Exhaust Fans

20" JD ... \$275.00
 24" JD... \$350.00
 36" Dayton... \$1146.00
 48" Dayton... \$1667.00

12' wire lock complete: \$12.54

ALSO OFFERING

Poly • Poly Carbonate • Wire Lock
 Roll-ups • Heaters • Exhaust Fans
 Bench Tops • Code Structures
 Gutter Connects

20357 Hwy 99E * Aurora, OR 97002 * 503-678-2700 * fax 503-678-2789
 800-347-2701 (outside OR) * kips@ovg.com * www.ovg.com

Quality Bark Dust @ Wholesale Prices

**Fir Bark Dust • Hemlock • Sawdust
Compost • Hog Fuel • Fines**

Marr Bros. Bark Dust 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.



D-Stake Mill

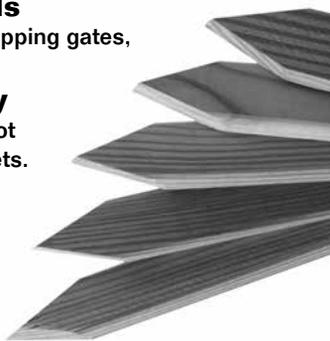
A Universal Forest Products Company

503-434-5525

1726 SW Highway 18, McMinnville, OR 97218 • www.dstakemill.com



- **Shipping Materials**
- Pallet repair boards, shipping gates, tilt sticks.
- **Custom Assembly**
- Shipping racks, bare root crates and nursery pallets.
- **Planting Stakes**
- Multiple sizes available
- **Treated Lumber**
- Multiple sizes available



Lumber Products for All Nursery Needs

Northwest News (cont.)

material onto the leaf tissue,” said Terry Abbott, branded adjuvant portfolio manager of Wilbur-Ellis. “This is important because it reduces the liabilities that come with applying crop protection products, while improving the efficacy of those products.”

For more information about Wilbur-Ellis' other product lines, please visit ea.wilburellis.com.

VERL HOLDEN APPOINTED TO OREGON GARDEN FOUNDATION BOARD

Verl Holden of Holden Wholesale Growers in Silverton, Oregon, was recently appointed to serve on the Oregon Garden Foundation Board of Directors.



A respected nurseryman, Holden has earned a lifetime certification status as an Oregon Certified Nursery Professional and provided more than 22 years of service to the OAN board — including serving as president of the OAN in 1977.

He has turned his passion to the Oregon Garden for the past several years. The Oregon Garden will hold a bench dedication on April 11 for Holden's late wife, Florence Hardesty, who passed away September 29, 2017. Formerly a professional nurse as well as a nurserywoman, Florence will be honored with a bench that will feature a plaque displaying a poem she wrote. Verl is pictured with *Picea pungens* 'Florenca', a spruce tree that was named for his late wife.

For more details, contact apennell@oregongarden.org



In Memoriam
NURSERY STOCK GROWER
LARRY PETERS PASSES

The OAN is saddened to learn of the passing of longtime member Larry Peters, former owner of Peters Meridian Nursery in Aurora,



Oregon. He died March 24, 2018 at the age of 78. Services were held April 2.

He was born on June 24, 1939 in Oregon City, Oregon to Fred and Esther Peters. His father passed away when he was 2. His mother remarried and he moved to a farm on Meridian Road when he was 10.

After graduating from Canby Union High School, he trained as a funeral director and embalmer. He married Trudi Mae Giger in 1959. After the wedding, the couple moved to San Francisco, California, where Larry attended the San Francisco College of Mortuary Science. He worked at funeral homes in Albany and then Salem until 1970.

The couple moved back to the family farm following the death of Larry's stepfather in 1970. Larry sold the cows and grew grain and berries. Later, he planted nursery stock and Peters Meridian Nursery was born. The business enabled the couple to travel and visit the salespeople who sold the plants, as well as the retailers who sold them.

Larry retired in 2004. His son Bill and Bill's wife, Jill, managed the nursery until it sold in 2012. Larry and Trudi moved to Canby in 2012.

Larry is survived by wife Trudi at home in Canby, son Bill Peters (Jill) of Canby, four grandchildren, and two great grandchildren. He was preceded in death by his son Brian in 2010.

In lieu of flowers, memorial contributions may be made to The Canby Center in Canby, Oregon, or to African Renewal Ministries of San Antonio, Texas. ☺



Digger MARKETPLACE

Motz & Son Nursery

Wholesale Growers of
 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

Write for our stock and price
 11445 N.W. Skyline Blvd.
 Portland, Oregon 97231
 Phone 503-645-1342
 FAX 503-645-6856

B&B Spruce 4 to 24 feet
 Chamaecyparis • Fir • Pine
 Japanese Maple • Poodle Pine
 Cut Christmas Trees

(503) 630-4349
 FAX (503) 630-7542
 PO Box 598 – Estacada, OR 97023

Supplies for Small Growers

SEED STARTING - Pots Trays Inserts
 Plug Trays

Labels - large variety size, color &
 shape of blank plant pot & row markers

Weed control, fertilizer, tapes & ties,
 watering, and more

<http://www.AAA-mercantile.shop>
<http://stores.ebay.com/AAA-Mercantile>
<http://www.amazon.com/shops/AAAmercantile>

Enter promo code DIGGER for a 10% discount
 for a limited time at AAA-mercantile.shop

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

Canby, OR

**Materials and
 Technical
 Assistance
 Available**

Specimen Trees

Flowering & Shade Trees
 Specializing in Quaking Aspen
 Evergreens Grown East Side of the Cascades

2019 SW Park Lane
 Culver, Oregon 97734
541-546-9081
www.mcpheetersturf.com

Schurter Nursery

Arborvitae—Emerald green
 Virescens
 Boxwood
 Japanese Maples
 Otto Luyken
 Skip Laurel

Various sizes & Varieties
503-932-8006

Digger MARKETPLACE

Finding common ground on immigration

The immigration system has been broken for more than three decades.

Building an immigration reform package in a vitriolic political environment remains a huge challenge. Oregon's agricultural industry is united in seeking a solution to the perpetual labor crisis. Getting from there will demand that we reconsider what a solution could look like.

Washington, D.C. has changed since the 1986 Immigration Reform and Control Act was passed. Congress envisioned a two-step process — first bring undocumented people into legal status, and second, create a visa system to assure a legal labor supply.

They completed the first step in 1986, but the second step failed in 1988 — I know, because I had a front-row seat. Since then, no attempt to create a visa system has even come close to passing.

The Trump effect

Donald Trump ran for president as a hawk on immigration, with his signature promise to build a wall on the United States-Mexico border. His election changed what is possible and altered how the issue is even discussed. People now have more difficulty finding common ground. They didn't have an easy time at that to begin with.

For a long time, the far left and the far right have used the political tumult to raise funds. Congress is guilty of not getting something done. It is not a partisan issue, either — both sides have failed.

This administration is forcing immigration advocates to reset expectations. Instead of hoping for permanent legal status for undocumented workers, our best hope may be a visa system without amnesty. So, what does that look like?

The only train in the station?

U.S. Rep. Bob Goodlatte (R-Virginia), chairman of the House Judiciary Committee, has not been a friend on immigration policy over his career. Now that he is close to retirement, however, he has mounted a significant effort for immigration reform. To many involved

in this issue, this might be one of the few windows to achieve meaningful change.

Rep. Goodlatte has proposed creating an H-2C visa that would complement the H-2A visa for temporary or seasonal agricultural work and the H-2B visa for non-agricultural work (including forestry and landscaping). While the specifics may cause anxiety amongst the nursery and greenhouse industry members, Rep. Goodlatte's ideas will serve as the menu for any future bill.

His bill includes the following elements:

- **A one-time opportunity** for all undocumented workers to get right with the law.
- **An initial three-year work visa.**

Upon expiration, two-year renewals will be allowed indefinitely as long as the worker has no disqualifying incidents.

- **An ag-only limitation.** The worker must prove they were working in agriculture on or before October 23, 2017.
- **A cap of 450,000 H-2C visas.** At the urging of Oregon agriculture and others, the bill was changed so that current workers do not count under this cap. The cap also has an escalator clause to allow for growth.

• **A touchback provision** requiring workers to leave the United States temporarily. It's complicated, but the bottom line is it's bad policy. To answer fears that workers could get stuck outside U.S. borders, the bill was improved to allow existing workers to visit the nearest country for just one day, then return.

• **A timeout provision** requiring each worker to leave the United States for one month every three years. The time away could be cumulative, meaning multiple exits adding up to 30 days.

• **An E-Verify requirement.** The electronic worker verification program would be enacted permanently 18 months after the worker visa program is up and running.

There is plenty here to be nervous about. The potential impact on the agricultural workforce could be enormous. There is deep anxiety regarding the fundamental structural issues of asking undocumented workers to sign up for an untested visa and leave the country to obtain work authorization status. The OAN continues to work with state and national groups to churn



Jeff Stone
OAN EXECUTIVE DIRECTOR

through the big issues that will impact the agricultural community.

The destruction of common ground

On big and emotional policy issues, the small-but-very-vocal political minorities on both sides usually win.

On one side, there are those who never supported “amnesty.” They were only inclined to go along if significant reductions in total immigration numbers were achieved. They attach issues like Deferred Action for Childhood Arrivals (DACA) as a way to mollify objections raised by both Democrats and Republicans — but only as a way to advance their agenda. If it all goes south, status quo wins without capitulating on granting legal status to undocumented immigrants.

On the other side is the group for whom no deal is better than a “bad” deal. But without enough compromise, “no deal” always wins.

It has kept playing out like this for three decades, but Americans want our immigration system changed. Poll after poll shows strong support for a system that allows willing immigrant workers to stay, but makes more of them abide by the rules.

Get ready for an anxiety train

Labor is a big deal for the nursery and greenhouse industry. We must secure a stable and available workforce.

The Goodlatte bill is not likely to be the finished product, but we must look for serious opportunities to push for a visa system that works for agriculture. As your executive director, I'm well aware it needs to get done, but we must make sure that the cure for our immigration policy ills does not irreparably harm us. ☺

MEET US THERE

our GENERATION runs DEEP

We are Farwest. We come to emerge in the green industry and grow family traditions.

Meet us out West to discover horticultural gold.

August 22-24, 2018
www.FarwestShow.com

**Chris and
Josh Robinson**
Robinson Nursery
Farwest Exhibitor



OREGON
ASSOCIATION OF
NURSERIES





Zesty

SUNJOY® Tangelo

Berberis thunbergii 'O'Byrne' pp#26546

A zingy accent to spice up any landscape! This new barberry offers vivid orange foliage that develops a distinctive chartreuse margin as the season goes on. Strong growing and deer resistant, Sunjoy® Tangelo barberry adds zesty color to landscapes from spring to fall.



Contact Jeff Pipp, West Coast Account Representative, 616-223-3361
www.springmeadownursery.com, 800-633-8859

