

# Digger

OCTOBER 2017

An appetite for  
**edibles**

PAGE 15

Mastering your  
production cycles

PAGE 19

Harvesting rainwater

PAGE 27

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Mention “OAN Convention” for special room rates starting at \$135 per night. Online, use group code “OAN 17.” Rates good until October 13 or until room block is full.

**Sponsorship opportunities available.** Contact Allan Niemi, OAN Director of Events, 503-582-2005, [aniemi@oan.org](mailto:aniemi@oan.org)



# Digger

October 2017 Vol. 61 No. 10



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Homeowner desires to grow their own food mean opportunities for retailers to redefine their role in the community.

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**On the cover:** The addition of tomato and squash plants to foodscaping advocate Rosalind Creasy's front porch only adds to the colorful appeal of the landscaping.

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# A year of growth

## In-depth involvement in the OAN leads to lessons that will serve for a lifetime



**Mark Bigej**  
OAN PRESIDENT

My how the time has flown! I can't believe I'm writing my final President's Message for *Digger*. What a fun and eventful year it has been. I want to thank all of our OAN members for allowing me the honor of representing you.

My year as president began at the OAN Convention in Sunriver last November. It was great to see so many familiar faces as we gathered to celebrate another year in the industry and look ahead to 2017. The social and conversation time with members was a true pleasure, and something I look forward to again this year.

Our next social event was the OAN Hall of Fame banquet on February 22. We inducted Glenn and Viola Walters, Bruce Usrey, Ray Klupenger, Dick Joyce and Jack Bigej. It was both inspiring and humbling to hear what these titans have done for our industry.

This year was also memorable for giving me an in-depth lesson in politics.

In January, the OAN had an Advocacy Training Session for members. We learned about the legislative process in Oregon and what each of us could do to help further our cause and protect our industry. The day was capped off with each of us giving practice testimony before a mock committee, so we would feel comfortable should the need arise.

The practice came in handy, as I soon had the honor of testifying in Salem on behalf of our industry, side by side with Leigh Geschwill.

On February 14, it was Legislative Day for Members. I joined together with 20 devoted OAN members as we went down to the State Capitol. Several senators and representatives heard us discuss the issues most important to our industry.

It was enlightening to see all of the work our association does on the state's political front. OAN members, our Executive Director and our lobbyists work hard to protect the interests of our industry. Despite the impending peril that lurked in proposed legislation this year, our advocates were able to minimize the impact on our members, and were even able to get some helpful legislation passed! I will never again take for granted all of the work that goes on behind the scenes that enables our industry to remain viable.

The same can be said for the work the association does on a national level. On the OAN's annual trip to the nation's capital in May, we met with Senators, Representatives, the House and Senate agriculture committees and the USDA to share our perspective on issues. It was evident that even back in Washington, D.C., the OAN is well respected.

As August rolled around, it was once again great to see the familiar and new faces of our industry at the Farwest Show. The show was a buzz of uplifting energy and conversations. Coupled with the news from the Oregon Department of Agriculture that nursery and greenhouse products are once again the state's No. 1 agricultural commodity, there was a definite feeling that business is heading in the right direction again.

All these great experiences were possible thanks to a conversation I had with Jerry Simnitt in 2011. As the OAN's president-elect at the time, he asked me to serve as the Member at Large on the Executive Committee. I took a chance and said yes.

My in depth involvement in the OAN the last seven years has been an amazing journey. I have learned more than I ever anticipated. I have been told that the more involved you get, the more you grow from the experience. It was definitely true for me.

Now it is time for Josh Zielinski to serve as president. Like me, he will be a second-generation president following in his father's footsteps. Josh will bring a lot to his year as president, and I look forward to serving alongside him.

I encourage all of you to step out and get involved with this great organization! You will get back more than you can imagine. ©



# Calendar

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

## SIGN UP THROUGH DECEMBER

### WINTER TRUCKS TO TRADE SHOWS

OAN members can ship plant material to the green industry shows held across the country in January and February, including MANTS, The Western, MGIX and others. Reservations are taken on a first-come, first served basis; payment is required to reserve space. To sign up, contact Kristen Urban at [kurban@oan.org](mailto:kurban@oan.org).

## OCTOBER 2017-FEBRUARY 2018

### FIRST AID AND CPR CLASSES

The OAN Safety and Insurance Committee is presenting First Aid and CPR classes as a service to members and the industry. Successful completion results in certification that is good for two years. Each class runs from 9 a.m.-3 p.m. Classes are offered in Hillsboro, Boring and Wilsonville. Some are taught in English and others in Spanish. Check the OAN website for specific dates and locations. The cost is \$42 for first-time or expired certifications and \$32 for renewals. Register and pay at [www.oan.org](http://www.oan.org), or call Debbie Hopkins, 503-682-5089.

## THURSDAYS IN OCTOBER

### OKTOBERPEST SEMINARS

Oregon State University and the North Willamette Research and Extension Center (NWREC) will present Oktoberpest, a series of pest management workshops for nursery and greenhouse growers. The classes will be held Thursdays in October at NWREC, 15210 Miley Road N.E., Aurora, Oregon. Pesticide recertification credit hours have been applied for on each session. To review topics and to register, contact Jan Egli at 971-373-5912 or [jan.egli@oregonstate.edu](mailto:jan.egli@oregonstate.edu), or log on to <http://oregonstate.edu/dept/nurspest/Workshopsclasses.htm>.

## OCTOBER 5-6

### TENNESSEE GREEN INDUSTRY EXPO

Produced by the Tennessee Nursery & Landscape Association and the Middle Tennessee Nursery Association, the expo will take place in McMinnville, Tennessee. For more information, log on to [www.tngie.com](http://www.tngie.com).

## OCTOBER 9-11

### PROTECTING POLLINATORS

Organized by Michigan State University and North Carolina State University, this conference on pollinator conservation in ornamental plant production and urban landscapes will be held in Traverse City, Michigan. The conference will foster discussion about issues such as insecticide safety and habitat conservation. For details, log on to <http://ecoipm.org/protecting-pollinators-conference>.



## NOVEMBER 3-4

### "FEELIN' GOOD VIBRATIONS" AT OAN CONVENTION

Save the date for "Feelin' Good Vibrations," the 2017 Oregon Association of Nurseries' Annual Convention, which will take place over a long weekend at Salishan Spa & Golf Resort in Gleneden Beach, Oregon. The agenda kicks off with the hospitality suites reception on Friday evening, followed by the Annual Membership Business Meeting and General Session on Saturday, and concluding with the President's Awards Banquet on Saturday evening. All events require registration at [www.oan.org/convention](http://www.oan.org/convention). All events are free for OAN members, except for the banquet dinner, which is \$69 per person. Book your room online at [www.salishan.com](http://www.salishan.com) and use code "OAN 17" to get special group rates starting at \$135 per night, or call 800-452-2300 and mention the OAN Convention. Block rates good until October 13 or rooms run out. Sponsorship opportunities are available. For more information, contact Allan Niemi, OAN director of events, at [aniemi@oan.org](mailto:aniemi@oan.org) or 503-682-5089.

## OCTOBER 17-20

### IPPS WESTERN REGION ANNUAL MEETING

The International Plant Propagators' Society Western Region will hold its 2017 annual meeting in Wilsonville, Oregon. The theme this year is "Growing in Diversity." The 58th annual meeting will include garden and grower tours, educational sessions and research presentations. For information and to register, log on to [www.wna.ipps.org](http://www.wna.ipps.org).

## OCTOBER 18-20

### LANDSCAPES 2017

The National Association of Landscape Professionals will hold its annual conference in Louisville, Kentucky. The conference is held in conjunction with the GIE+EXPO and Hardscape North America trade shows, which host nearly 750 indoor and outdoor exhibits, and provides more than 40 educational sessions. For more information, log on to [www.greenindustryconference.org](http://www.greenindustryconference.org).

## NOVEMBER 2-3

### OREGON WATER LAW CONFERENCE

The 26th annual conference will cover legislative, administrative and judicial water law and policy developments, including cases involving the Clean Water Act, Endangered Species Act and federal land use planning that affect water rights in the Deschutes Basin. The conference also features a keynote presentation from Gov. Kate Brown's Natural Resources Office. To register, log on to [www.theseminargroup.net](http://www.theseminargroup.net).

## NOVEMBER 15-16

### PARTNERS IN COMMUNITY FORESTRY CONFERENCE

Tulsa, Oklahoma will host this year's conference, which is presented by the Arbor Day Foundation. The two-day event will bring together urban forestry professionals, environmental nonprofits, growers and educators to discuss the various ways of strengthening community forests. For details and to register, log on to [www.arborday.org/pcf](http://www.arborday.org/pcf).



# Northwest News

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



OAN Executive Committee members are sworn in at last year's OAN Convention, including (l-r) secretary Kyle Fessler, vice president Jim Simnitt, treasurer Mike Hiller and president Mark Bigej. PHOTO BY CURT KIPP

bership for final approval. Under the OAN bylaws, all members in attendance at the Annual Meeting, which takes place at the OAN Convention on November 4, shall be eligible to vote.

A mailing has been sent to all OAN members detailing all the changes, including a comparison of the language before and after. Members will also be informed of a webinar to take place sometime in October, where they can hear presentations on the changes and have the opportunity to submit questions. Related documents can be viewed at [www.oan.org/bylaws](http://www.oan.org/bylaws).

Different industry segments would be represented on the board, based on each segment's proportional size within the Oregon nursery industry, as determined by USDA statistics.

"Some have asked what this means for the chapters," Bigej said. "We want them to be as vital as possible. It's just that they would no longer be the source of board representatives. We found that directors from industry segments would be more representative."

The number of seats per industry segment could change over time as the industry changes. Initially, there would be 10 industry representatives on the board — two greenhouse operators, one retailer, one associate member, and six nursery growers.

The six nursery growers would consist of three container growers, two field grown/bare root growers, and one field grown/ball and burlap grower. Each would serve two-year terms, but during the first year of phase-in, some would serve for one year so that terms would be staggered.

All of these directors would be suggested by a nominating committee, nominated by the board and elected by member ballot. A board nominee qualified in more than one industry segment would be eligible to represent any of those segments.

In addition to the 10 directors representing industry segments, the board would continue to include seven Executive Committee members as it does currently. They include a president, president-elect, vice president, secretary, >>

## MEMBERS TO VOTE ON OAN BYLAW REVISIONS

At the 2017 OAN Convention, members will have the opportunity to vote on bylaw revisions that are intended to modernize the association's governance structure. The most significant change would call for representation on the OAN Board of Directors based on industry segments, rather than geographic regions.

"To be effective, the OAN needs to make sure it is representing the wishes of the industry, and Oregon's nursery industry is very diverse in terms of production types and retail versus wholesale," OAN President Mark Bigej said. "That's why we recommend implementing a board

structure that makes sure every segment of the industry is represented in the decision making."

The changes were recommended initially by a Board Composition Task Force that Leigh Geschwill appointed during

her year as OAN president (2015–16). The Task Force was led by Bigej, who was serving as president-elect at the time.

After the task force made its recommendations, they were discussed at last year's OAN Convention. Following input from members and approval from the OAN Board of Directors, the recommendations were translated into specific bylaw language this

year. The board approved the specific bylaw changes at its September meeting and agreed to forward them to the mem-

### OAN Board of Directors makeup (proposed)

<b>Executive Committee (at large)</b> .....	<b>7</b>
<b>Greenhouse operators</b> .....	<b>2</b>
<b>Retailers</b> .....	<b>2</b>
<b>Associate members</b> .....	<b>1</b>
<b>Growers</b> .....	<b>6</b>
<i>NOTE: Grower representatives would include the following:</i>	
Container growers.....	3
Field grown/bare root .....	2
Field grown/B&B.....	1
<b>TOTAL</b> .....	<b>17</b>

treasurer, past president and member at large. The president-elect, vice president, secretary and treasurer are elected each year; the president-elect becomes president the next year; the president becomes past president; and the member at large is appointed by the incoming president.

Other proposed revisions would update the bylaws to bring them in line with current Oregon law.

#### OAN AWARDS NOMINATIONS ARE DUE BY OCTOBER 6

Who has inspired you? Do you know someone who deserves recognition for making the nursery industry better?

The 2017 OAN Member Awards, to be presented at the OAN Convention November 3–4 at Salishan Spa & Golf

Resort in Gleneden Beach, Oregon, are designed to recognize these people in a variety of categories.

“The Awards Committee is asking for help to identify the hardworking people who are constantly driven to improve their business, help their neighbors and contribute to our shared success,” OAN Director of Events Allan Niemi said. “Please consider submitting a nomination.”

Recipients will be honored at the President’s Awards Banquet on Saturday, November 4, at Salishan Spa & Golf Resort in Gleneden Beach, Oregon. Details on the Convention are available online at [www.oan.org/convention](http://www.oan.org/convention).

To view a list of the available awards categories, download the PDF nomination form or submit a nomination online, log on to [www.oan.org/nominate](http://www.oan.org/nominate).

#### GOV. KATE BROWN VISITS WITH OAN MEMBERS AT FARWEST

Oregon’s thriving green industry had Gov. Kate Brown’s full attention when she met with OAN members at the Farwest Show. The governor spent a full hour discussing various issues with members of the OAN Government Relations Committee.

“Your team has done an excellent job building relationships with legislators, agency folk and people across the state,” Brown said.

Brown touted the bipartisan transportation package passed by the Oregon Legislature, with OAN support, as a major achievement that will help move people as well as products. “I was pleased that rural Oregon, urban Oregon, Republican Oregon and Democratic Oregon could

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Oregon Gov. Kate Brown (pictured with OAN president Mark Bigej, left) met with roughly 25 members of the OAN Government Relations Committee at the Farwest Show. The issues discussed included wages, labor supplies, water supplies, transportation, workforce housing and many others. PHOTO BY CURT KIPP



come together on this package,” she said. Also on her mind was the critical issue of water supply development to meet the needs of cities and farms.

The Legislature approved \$50 million for water supplies but more needs to be done, including greater resources for the state Water Resources Department. It’s been difficult to bring some Legislators to the view held by OAN and others who have been working together to address supply. “I need, frankly, more pressure on the Legislature,” she said. “I want to work with you, frankly, to create that.”

The governor also touched on added funding for the Oregon Health Plan, new investments in technical and STEM education, the importance of workforce housing, and encouraging a stronger FEMA response to droughts the past three years. >>

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## MONROVIA WELCOMES NEW MARKETING OFFICER

Monrovia has hired Tristan Simpson as the company's new chief marketing officer. She will be based at the company headquarters in Azusa, California.

Simpson brings more than 20 years of experience in consumer packaged goods marketing to Monrovia. She will be responsible for developing, implementing, and managing a comprehensive marketing strategy for the company. "We are really excited to have Tristan join our executive team," company CEO Miles Rosedale said. "Her proven abilities as a leader and innovator of dynamic marketing strategies are truly impressive."

Simpson holds an MBA from the Marshall School of Business at the University of California, Los Angeles and a BA from the University of California, Irvine.



## STEVE TABOR JOINS SKAGIT HORTICULTURE IN WATSONVILLE

Steve Tabor has joined Skagit Horticulture as the general manager of their facility in Watsonville, California.

He will assume leadership responsibility for all growing operations there.

Since 2007, Tabor has worked with Pacific Plug and Liner in a number of key roles, including production scheduling, software implementation, logistics, inventory management and operations. Most recently, he has been very closely involved in implementing Lean practices, serving as Lean Captain at the nursery.

Steve will continue to be very involved in improving production efficiencies as Skagit Horticulture implements Lean processes in Watsonville, as well as at its three Washington facilities and in Oregon. He can be reached at 831-741-4444 or [stevetabor@skagithort.com](mailto:stevetabor@skagithort.com). ☺



# Open gardens, open minds

**G**ardening is a constantly changing hobby for many of us. When we visit garden centers, we are often not only buying plants that are familiar to us, but we are on the lookout for something new.

Many private gardens have signature plants that might be a tree or shrub, or perhaps it is a plant(s) that we buy new every year. In my garden, I would consider my three red leaf banana plants (*Ensete ventricosum* 'Maurelii') as signature elements. I have three giant pots. Each spring I buy three of these plants and they become specimen plants throughout the summer.

And where did I get the idea for growing these in pots? From visiting another gardener's garden.

## Branching out

Visiting other gardens is an experience that I welcome. Sometimes when I am busy with my own garden, I hesitate leaving it to see another garden. However, when I do, I'm glad I did.

Many garden clubs and schools sponsor open gardens as a fundraiser. Obviously individuals enjoy this activity, as evidenced



Every year, the author displays three potted red leaf banana plants (*Ensete ventricosum* 'Maurelii') as a signature element in his garden. He first saw the idea in someone else's garden. Touring open gardens is a great way to see new ideas and discover emerging garden trends. PHOTO

BY RICH BAER

by the income generated. In fact, open gardens are so popular that they have become a major reason for people to join some horticulture organizations.

In the Portland, Oregon metro area, one of the largest horticulture organizations is The Hardy Plant Society of Oregon. This

organization, which has more than 2,500 members, publishes an open garden book each year, with descriptions and dates of gardens that will be open to members for free.

This year there were almost 100 different private gardens to choose from. Gardens began opening in April and some have open dates into October.

Many gardeners open their gardens more than once in a season. This provides the visitor with the opportunity to view how the garden looks at different times of the year and which plants are blooming when.

The Salem Hardy Plant Society has a similar feature of open gardens in and around the Salem area for members. I am sure that there are many other similar organizations that have the same type of program.

## A way of understanding the market

In addition to seeing plants that are new to me, I often see old, familiar plants that are used in creative ways. Maybe there is a container with a mix of familiar plants that I might never have considered putting together.

I might end up stealing this idea for my own garden. I might also alter the plant assortment and make it my own, still realizing that the original idea came from somewhere else.

A year ago, on a visit to the garden of John and Kathy Palmer in Salem, I saw *Deinanthemum bifida* in bloom. I had not seen nor heard of it before. The plant is sometimes called the two-lobed false hydrangea.

It soon found its way onto my "must have" list — and, of course, into my garden.

Visiting a private garden also affords the opportunity to meet the owner(s), usually present during an open garden. This is a perfect venue to talk about gardening! I love to pick their brain regarding plant selection as well as places to shop — and most of them love talking about it.

If you work at a garden center, appreciate this opportunity. It could be a chance to deepen your understanding of what avid gardeners really want. This information can then be incorporated into your buying and marketing strategies. Certainly spring is a busy time of year for buyers to be out of the store, but no



Mike Darcy

Head "plant nerd," longtime speaker, host of gardening shows on radio and TV, and author of the *In the Garden* email newsletter. You can reach Mike, or subscribe to his newsletter, at [itmikedarcy@comcast.net](mailto:itmikedarcy@comcast.net).

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## What I'm Hearing

doubt, it's the best time of year to visit private gardens.

Garden center buyers have a tendency to stick to the tried-and-true plants that account for the bulk of their plant sales. However it is imperative for garden center personnel to visit private gardens to learn what gardeners are buying and how they use these plants in their gardens.

While the demand for traditional plants is going to continue to produce the largest volume of sales, there is another market out there for the plants that are not as well known. While this market might be limited, there's probably minimal competition from the box type stores, making it wide open for you.

Open garden visits may also help by inspiring new ideas for selecting other plants and creating imaginative displays.

The Pacific Northwest is fortunate to have highly active horticulture communities. Even though gardeners might visit consumer garden shows to see what are thought to be the newest gardening ideas, sometimes a private garden tour is the best place to uncover a new trend.

Tapping into this large and diverse resource may pleasantly surprise you. The result could make a difference in your business plan. ☺



The two-lobed false hydrangea (*Deinanthe bifida*) is another discovery the author saw elsewhere and incorporated into his own garden. PHOTO BY RICH BAER

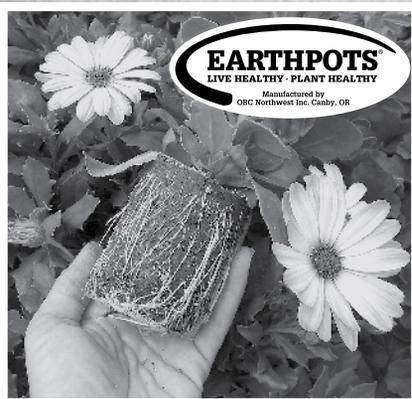
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# An appetite for edibles

BY ELIZABETH PETERSEN

**W**hen I grew up in southeast Portland in the 1950s and '60s, my parents grew plenty of food in our yard.

The parking strip in front of our house supported apple, peach, pear, plum and quince trees. The backyard held a full size cherry tree that boasted sweet fruit, provided comforting shade and supported both a swing and a treehouse.

Chives, garlic and Mediterranean herbs edged the rose beds. On the sunny south side of the house, rows of crops produced an abundant harvest of summer vegetables, berries and other fruit. Rambling vines covered arbors and pumped out crops of both kiwifruit and hops.

We harvested and ate the food, preserved it and shared generously with neighbors and friends. Nothing was wasted.

When all useable food had been retrieved, eaten fresh, canned, frozen, dried or brewed, the remaining peels, pits and other organics went back outside to the brick bin where it magically became rich, dark compost.

## Today's edible landscape

In 1982, Rosalind Creasy advocated for this kind of lifestyle in her ground-

breaking book, *The Complete Book of Edible Landscaping*.

In the decades since, many things have changed. For example, we don't call it simply "gardening," but "foodscaping" now.

But some things remain the same. People still need to feed themselves and their children. Growing your own food still benefits both health and pocketbook. And most people agree that the best foods are fresh, flavorful and locally sourced.

As food plants have made their way into the front yard, Creasy has continued to inspire others about the beauty and benefits of growing food. She reports that, in her area in California, the leaders of Silicon Valley are promoting food gardens to benefit their employees. The CEOs of Adobe Systems and Google even had Creasy give presentations on growing food.

"Both companies have provided space for food gardens to supply produce for their cafeterias and for the employees to have their own plots," Creasy said.

The new Apple Park, headquarters for Apple Inc. in Cupertino, California, also includes edibles in its landscape plans.

"Many of the millennials around here are interested in growing food," Creasy told me. "There is no question but

that the younger generation, unlike the ornamental-only generation, sees edible plants as the ultimate garden status symbol. They like to brag, 'I grew this tomato/basil/pepper myself.'"

## New relevance for nurseries

What does this mean for ornamental horticulture, an industry that took a significant hit during the recession of 2008–09?

It offers a way for growers and independent garden centers to redefine the roles they play in their communities.

Evidence shows that young people want to feed their families fresh, nutritious food that has been grown sustainably and close to home. As a result, grocery stores are offering an increasing array of organically grown, plant-based and heirloom products. Farmers' markets and CSAs are booming. People are finding ways to plant and grow their own.

"The industry needs to be relevant to thrive," said foodscaping proponent Brie Arthur, speaking at this year's Farwest Show.

Another Farwest speaker, Jim Monroe, also emphasized the potential for food in the garden center. He is the owner of Greenbrier Nurseries, a grower and retailer in 

## Appetite for edibles

**Previous page:** Edibles can fit right in amongst the ornamentals in a front yard.

PHOTO BY ELIZABETH PETERSEN

**This page:** Rosalind Creasy regularly harvests an abundant assortment of edibles from her yard, from vegetables to fruits to berries. Additional ideas can be viewed at her website, [www.RosalindCreasy.com](http://www.RosalindCreasy.com). PHOTO COURTESY OF ROSALIND CREASY



Roanoke, Virginia. “We were really hurting after the recession,” Monroe said, “so we started growing food in empty greenhouses to help our employees.”

Doing that led to a bigger focus on food that has become a year-round, locally based business model. The garden center, now more relevant to the community, has enjoyed increased traffic and off-season cash flow.

“[We became] the food place in town and the expert on growing food,” Monroe said.

A weekly, year-round Farm to Table marketplace brings together a diverse line of niche/gourmet products from local vendors. CSA farm shares drive three cash flows during winter, and during the summer, when members come to the garden center to pick up their produce, they frequently pick up plants too. Adding the CSA increased summer traffic at the garden center by 2000 percent.

Greenbrier is also experimenting with growing gourmet microgreens that are ready to harvest in three days and converting greenhouse space to food crops. Tomatoes, cukes and peppers grown in three-gallon pots have a three month growth cycle as opposed to a three year production cycle for shrubs, Monroe pointed out.

“Everyone eats,” Arthur said.

“Growing food is an opportunity to combine beauty, ecology and nutrition, and the horticulture industry can help improve ecosystems and the health of their communities, eliminate food deserts and facilitate positive changes in green infrastructure.”

### Trending towards plants

PR and marketing firm Garden Media Group has identified growing edible plants as an important trend for several years, and spokesperson Katie Dubow expects that this trend will continue in 2018.

Changing attitudes about health are driving interest in growing and eating plants: people are choosing more plant-based foods and they view gardening as a

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boost to mental health. “Whether indoors or out, a new wave of concerned citizens, especially millennials, are eating more plants for better health, both for themselves and for the planet,” Dubow said.

The overall theme of the GMG’s 2018 Trends Report — Nature’s Rx: Mental Wellness — acknowledges rising concerns about mental health, especially anxiety, and the fact that growing and being around plants can benefit mental health.

Young people “will be growing plants as a way to balance physical and mental wellness and clear their heads,” Dubow said.

Those steering away from meat are now starting to grow edibles rich in protein at home, so GMG identified ‘Grow Your Own Protein’ as a specific new direction for 2018.

Another expected 2018 trend identifies purple foods and plants as taking center stage for both beauty and health benefits. According to the USDA, Dubow said, purple antioxidants, called anthocyanins, help fight cancer, have anti-aging benefits, reduce obesity, and protect the heart. And purple food promotes mental strength too.

People will be using purple herbs like lavender, catmint and rosemary and replacing ornamental shrubs with blueberry and blackberry plants, Dubow predicted.

### Catering to the food gardener

Long term proponents of growing food include devoted purveyors of seed and growers of fruiting plants who have expanded choices for growing food, bringing back flavorful heirlooms, researching best options for specific growing conditions and introducing a wide range of exciting international flavors.

“Eating never goes out of style,” pointed out Renee Shepherd, owner of Renee’s Garden Seeds in Felton, Calif. ([www.reneesgarden.com](http://www.reneesgarden.com)).

Widely regarded as a pioneer in introducing international vegetables, flowers and herbs to home gardeners and gourmet restaurants, Shepherd dates her

seed sales to 1985. Searching out the best seed sources, testing new plants in her own gardens, developing and sharing recipes with gardeners, Shepherd promotes a “Garden to Table” line of seeds.

Available only at independent garden centers, Renee’s seeds appeal to home gardeners who like to cook. The entire line of non-GMO varieties has been selected for great flavor and easy culture from seed producers all over the world.

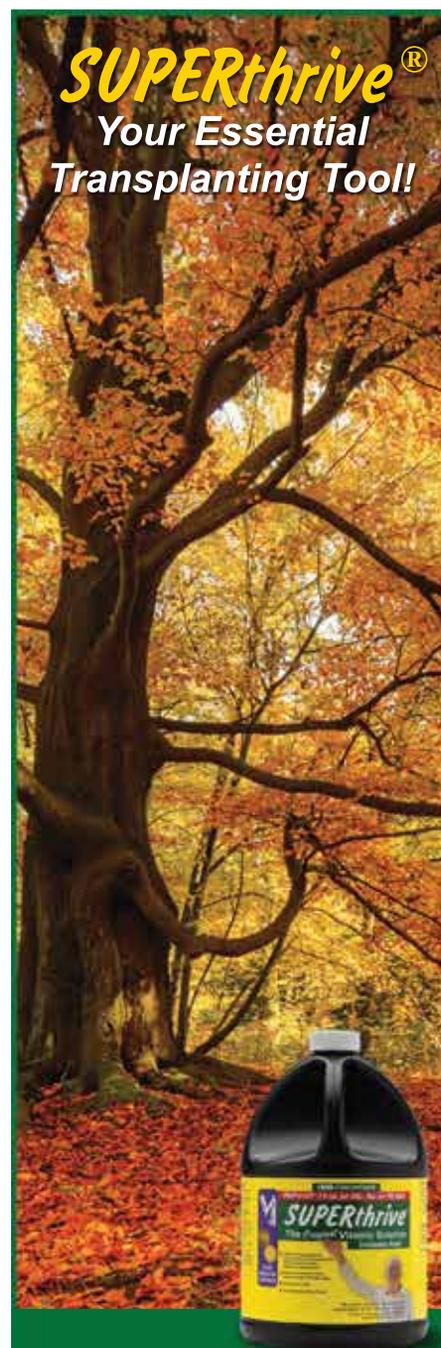
Cook-gardeners appreciate uniquely flavorful choices like heirloom Chioggia striped beets from Italy and Gladiator parsnips from England, Shepherd said. Cilantro overtook basil as Shepherd’s top-selling herb this year as tacos and salsa have become mainstays in American culture.

Shepherd also specializes in compact varieties, like French zucchini Astia that was bred for container growing. A line of flower seeds selected for color and performance attracts pollinators and beneficial insects to enhance edible gardens too.

Jim Gilbert, owner of wholesale Northwoods Nursery in Molalla, Ore. (<http://www.northwoodsnursery.com>) has been growing fruiting plants since 1979 and he has travelled the world to bring unusual international produce to market. Moving to the nursery’s current location in the Willamette Valley in 1982 allowed Gilbert to start growing figs, pineapple guavas and fuzzy kiwis, among other sub-tropical fruits. When he began traveling to the former Soviet Union in 1990, he brought back sea berry, honeyberry, Cornelian cherry, schizandra vine and unique varieties of quince and olive.

Currently, trials with 2,400 sea berry seedlings are underway at the nursery as Gilbert seeks improved forms of the fruit that is popular in Eastern Europe, Russia and China. A potentially valuable plant for American gardeners that is prized for large clusters of bright orange-yellow berries, sea berry fruit is very high in Vitamins C, A and E, and its tart juice, when sweetened, makes a delicious drink.

Gilbert attributes his ability to connect with like-minded folks around the >>>



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## Appetite for edibles

These blackberry vines climb a trellis in foodscaping advocate Rosalind Creasy's front yard, making for a scenic and delicious entrance. PHOTO COURTESY OF ROSALIND CREASY



world to two things: he studied Russian in high school and college. He also believes that "interest in horticulture transcends cultures." So even where he did not speak the language, "common interest helped make friends in many countries, including Germany, Italy, Switzerland, Korea, Japan and China."

Selling mostly to mail-order nurseries, garden centers and re-wholesalers, Gilbert offers container plants in #1s, rooted cuttings and one-year-old bare-root fruit trees. He offers dwarf, compact and columnar fruiting plants as well as ones with good disease resistance and health benefits.

"We have always been a Northwest nursery," Gilbert said, "focused on fruiting plants that will grow and produce fruit in our unique climate. We search for easy-to-grow varieties that require little or no spraying.

"And, we are dedicated to growing our plants in an environmentally sound manner with the goal of leaving our soil and environment in better health than when we began."

*Elizabeth Petersen writes for the garden and horticulture industry. She can be reached at gardenwritel@gmail.com.*

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# Better production cycles mean greater success

BY JON BELL

**F**or Mike Heller of the Mount Angel-based Kraemer's Nursery — and for probably just about any other seasoned nursery grower out there — the key to success can be boiled down to three simple things.

“The biggest things for nurseries are space, time and money,” he said. “Those are the biggest limiting factors — and the most important ones.”

Of course, there's plenty of complexity behind that simple summation, but those three factors, if tended to properly, can spell success or failure for any nursery.

And nowhere are space, time and money more crucial than when it comes to managing — and optimizing — production cycles.

Nurseries large and small must constantly monitor and tweak their production cycles to make sure that what they're putting into the ground — or pots — balances with what they get out of it.

The shorter the growing cycle, the quicker the return on investment and the sooner the next crop can be planted. But a rainy spring or a frigid winter can throw in a wrench, and ongoing labor shortages always add a hint of uncertainty.

Longtime growers have developed their own effective approaches over the years, and new technologies, including mechanization and advances in fertilizers, insecticides and fungicides, are helping to tighten up cycles even more. It's all part of the ongoing odyssey that every nursery is on.

“It's a pretty simple concept,” Heller said, “but it's hard to do.”

## Science at work

When it comes down to it, there is a real science behind nursery growing cycles. A plant goes in the ground or in a pot and, if all goes as planned, comes out a certain number of months or years later, ready for sale and shipment.

Along the way, it requires attention, as well as resources, to ensure it emerges in the best possible condition for the least possible input.

“It is a science. How exact (it is) influences profitability,” said Chris Lee, shipping and farm manager at Eshraghi Nursery in Hillsboro. “We have target finish dates assigned to everything that we grow. These targets are set at the time of production ... The objective is to have salable plants ready (for spring and fall ship-

ping seasons). If they finish too early, extra inputs may be necessary. If they finish too late, they could miss a window for sales.”

Todd Nelson, with the Woodburn nursery Bountiful Farms, said the goal is to have production cycles be as exact and steady as possible.

Anything less can lead to underwhelming and unprofitable results. And the more variables that arise along the way, the more challenging it will be to keep the cycle steady.

“You want it to be a science. With the amount of time the plant is in the ground until it hits its peak value — your turns are extremely important,” he said. “It's always about making sure the quality is high and that the plant is leaving the nursery as soon as it hits its peak.”

## Curveballs in the cycle

Along the way, however, challenges and obstacles are bound to sprout up.

One of the biggest is an issue that seems to shadow every aspect of the nursery business: labor.

An ongoing shortage of labor in the industry has made it hard for nurseries to find the workers they need to



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## Cycles of success

help ensure that their operations can run smoothly and efficiently.

"I'd say labor would be No. 1 at this time," Nelson said. "That's definitely part of the struggle we are dealing with as a whole in the industry in the U.S."

Balancing spacing and timing of production can be tricky, and any deviation can mean plants need more handling than initially planned for.

One example from Lee is that a certain crop may need to be planted in June for a finish by September. If there's not enough space, the plants could be put down pot-to-pot. That reduces the amount of water they need, but it also requires more labor time when they need to be spaced as they mature.

"That reduces our profitability," Lee said. "Sometimes it is unavoidable."

Weather, naturally, also has a big hand in how production cycles unfold over the seasons and turn it into more of a gamble. "Mother Nature is always throwing curveballs at you," Heller said.

Despite the meteorological fluctuation, Lee said that the weather largely is more of a help than a hindrance in Oregon. "Ultimately the climate in Oregon is excellent for nurseries," he said. "That is why we are the nursery state!"

## Staying ahead

Considering the challenges and limitations, growers have, nonetheless, found ways to keep their growing cycles short, sweet and productive.

Heller said Kraemer's has developed its approaches over years and years of examining how different plants grow best, when demand peaks and other factors. The nursery also works closely with its sales team to develop a forecast of what customers want and when, and then proceed accordingly. He said Kraemer's essentially has a "recipe" for each plant.

Nelson, too, said that years in the business have helped Bountiful Farms hone in on the best schedules for pruning, fertilizing and taking other steps to keep production cycles as smooth and short as

possible. And Lee said that, in addition to experimenting with planting dates, fertilizing rates and forcing plants under plastic, making sure that labor is as efficient as it can be when tending to plants is key.

“There are certain things that must happen to the plants along their growth cycle — fertilizing, staking, spacing, spacing and digging are a few,” he said. “Working to making these value-added procedures more efficient is where we find gains.”

The ever-changing world of fertilizers, insecticides, fungicides and new varieties is also an important one to pay attention to.

Heller said he is constantly monitoring the marketplace and communicating with other growers across the nation to keep up on what’s new and what might be available to help optimize a production cycle. Just >>

## Online course tackles costing and profitability

Keeping production cycles as tight as possible while still maintaining quality can help nursery growers maximize their investment — and their return.

And while much of the required expertise is developed in the field and after years of experience, a little classroom time and some continuing education never hurts, either.

For those growers who are in the greenhouse production realm, the University of Florida Institute of Food and Agricultural Sciences is offering just the course. Conducted entirely online from Oct. 30 to Dec. 1, 2017, UF’s **Costing and Profitability course** will offer a range of topic areas to help growers develop the skills they need to accurately estimate production cost and profit for their businesses.

Those topic areas include everything from crop enterprise budgets and preparing income statement data to allocating overhead, labor cost and efficiency and price and profitability. The course also takes on seasonality, space use and shrinkage and how to maximize return on investment in technologies.

Instructors include Paul Fisher, Ph.D., Alan Hodges, Ph.D., Rosanna Freyre, Ph.D. and Bill Swanekamp of the wholesale grower Kube-Pak.

To find out more, visit <http://hort.ifas.ufl.edu/training/> or send an email to [greenhousetraining@ifas.ufl.edu](mailto:greenhousetraining@ifas.ufl.edu).

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## Cycles of success

as advances have been made in amendments and varieties, so too have technology and mechanization come a long way in helping growers maximize their yields and investments.

“We are mechanizing wherever we can,” said David Van Essen, owner of Van Essen Nursery Company in Lebanon, Oregon.

For Heller and Kraemer’s, that’s included investing in a drone to monitor crops. Nelson said Bountiful Farms uses robots at its operation, as well as a Trimble GPS system that can help with spraying, water management, yield monitoring and other processes.

This year, Eshraghi Nursery introduced more automation into its pruning, staking and planting procedures, and according to Lee, it has already made a noticeable difference.

“Not only has it created a better working environment for our employees, a more consistent and higher quality plant is apparent,” Lee said. “As these improvements continue, production planning comes easier due to our faster cadence.”

And technology doesn’t have to just mean drones and robots. Heller said advanced software tracking systems alone have been a huge help at Kraemer’s.

“I can pull a report right now and look and see what’s going on out to the year 2022,” he said. “Having that kind of system, getting an accurate inventory, it’s critical. You can fix a lot of problems when you can see them in advance.”

### Always room to improve

There’s likely more new technology and automation on its way to help grow-

ers continue to maximize their output while trimming their input.

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*Jon Bell is a freelance journalist who writes about everything from craft beer and real estate to the great outdoors. His website is [www.jbellink.com](http://www.jbellink.com). He can be reached at [jontbell@comcast.net](mailto:jontbell@comcast.net).*

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# GROWING KNOWLEDGE

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



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

## Rainwater harvesting systems for the Willamette Valley

BY CONNER OLSEN, ALEXANDER KOWALEWSKI, MICAH GOULD AND JOHN LAMBRINOS

The recent trend toward more extreme periods of drought has been a shock to residents of the Pacific Northwest. Many are able to maintain their landscapes at high levels only through heavy summer watering.

This has forced people of the Pacific Northwest, and people from all around the world, to rethink their water-use strategies, as the global trend has shifted toward greater sustainability.

One potential mitigation strategy for cool-humid regions, such as Oregon's Willamette Valley, is to use rainwater harvesting systems to supplement traditional supplies. They are a logical choice for this climate zone. Although the average annual precipitation (42.7 inches in Corvallis, Oregon) is sufficient for the majority of crop production, this precipitation occurs almost exclusively in a nine-month period spanning from fall to spring. Irrigation is still required for at least three months of every year.

Our research evaluated two rainwater-harvesting systems for use in the Willamette Valley — an aboveground cistern and a belowground AQUABLOX™ matrix storage system (Figure 1). Each of these systems was set up to collect water from a roof outfitted with two identical, seamless gutters. Each gutter was fitted with a first-flush diverter — a downspout attachment that prevents particulates from entering the system (Figure 2, next page).

### Aboveground system (cistern)

The aboveground system evaluated in this project was a polyethylene cistern,



**Figure 1.** Two rainwater-harvesting systems were built at the Oregon State University's Oak Creek Center for Urban Horticulture. A pond-less waterfall system (foreground) was built next to an aboveground cistern system (background).

which represented a fundamental, low-budget system. System components include a 5,000-gallon cistern, tank gauge, floating outtake and siphon-style overflow piping.

In an attempt to keep the aboveground system as simple and carbon-neutral as possible, the pumping method used in this study was pedal power — specifically, a pump powered by the pedals of a stationary bike. However, the system could easily be adapted to an electronic pump. The aboveground system also has the benefit of being able to pump

out water using gravitational forces. The total budget for this system was \$3,083.

### Subsurface system

The second system — an underground plastic-matrix storage system that recirculates using an aboveground waterfall feature — represents the high-tech end of the spectrum (Figure 3, page 29). This pondless waterfall storage system includes the following components: subsurface basin (4,000-gal) with structural-matrix of AQUABLOX™, ethylene propylene diene terpolymer



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## Rainwater harvesting systems

(EPDM) pond liner, protective geotextile underlayment, recirculating waterfall feature fed from a submersible pump, water level gauge, overflow piping, external pressure pump for dispersal, and a sump pump placed outside the tank for flood prevention.

The matrix of structurally supportive plastic blocks used in this system was topped with a permeable weed-barrier cloth and covered in round river rock to sit flush with the ground surface. The open top allowed rainwater to enter the system from the surface, thus adding to the rainwater harvesting potential.

At the surface of the pondless system, piping was installed to send excess rainwater downhill from the subsurface system. Excess dirt from the excavation was mounded next to the basin and shaped into a recirculating waterfall feature. This provided constant circulation of the stored water, thus keeping it oxygenated and clean. The budget for the second system was \$12,775.

### Findings and conclusions

The chief advantages of the aboveground system were simplicity and robustness. Installation took very little effort, and costs were low.

For downsides, the system takes up a decent amount of space and doesn't provide any aesthetic benefits. The stored water can also become stagnant. Even though the tank had been painted black to eliminate light from entering the water column, there was still a significant layer of slime on the inner walls of the cistern and on the floating outtake. While this had no impact on the function of the tank in the first year of operation, it was decidedly a problem that the water quality decreased (via biomass accumulation) during the storage period.

The subsurface storage system was considerably more expensive than the cistern system, at \$12,775 for product and excavation services. The majority of the cost was associated with the Aquablox matrix; however, structures like these are a necessary component for maximizing subsurface storage capacity.

Another deterrent to the pond-less waterfall system is that electricity is



**Figure 2.** Seamless gutter with first-flush downspout diverter allowed the first several gallons of each rainfall event following an extended dry period to bypass the storage basin. The first flush of rainwater carried the majority of the particulate accumulated on the roof in the previous dry spell, and sent it to the storm drain as the same as a standard gutter. The diverter sealed off automatically after the first flush and started re-directing the rainwater to the cistern.

required to power the recirculating waterfall; thus adding to the total cost of the Aquablox system. However, there is no denying the aesthetic benefit of a recirculating waterfall feature, and when considering the fact that the water remains clean throughout the storage period, it may be worth the cost.

Aboveground systems are a good choice for retrofits of existing freestanding homes, particularly in cases where aesthetics are less of a concern or the cistern's effect on site lines can be mitigated. In addition, the large amount of space taken up by the cistern precludes its use where space is limited or where space is reserved for other uses.

In contrast, subsurface storage systems are a good choice for confined spaces or where an aboveground cistern would significantly impact aesthetics. They might be more widely appropriate when installed as part of initial construction where they can be integrated into

overall building design and construction, which would reduce the per-unit cost.

For more extensive detail pertaining to the above ground cistern and below ground AQUABLOX system, reference the following publication: Olsen, C. A. Kowalewski, M. Gould and J. Lambrinos. 2017. Evaluating Two Rainwater Harvesting Systems in an Urban Setting in Oregon's Willamette Valley. *Journal of Green Building*. 12(1):1-10.

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**Figure 3.** The pondless waterfall storage system makes use of EPDM pond liner and protective geotextile underlayment, with Aquablox providing structural support for the pond so it can be buried under gravel. PHOTO COURTESY OF LAKE WASHINGTON INSTITUTE OF TECHNOLOGY

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# A time for reasoned minds

**October is upon us — the release of summer's long grip on our operations, leaves rapidly changing into a wonder of colors, crisp mornings and celebrations of Columbus Day and Canadian Thanksgiving.**

It is difficult not to write about all the tumult happening around our great nation. It is not the first time nor the last that anger has surfaced, and reason seems far away.

Our great industry is blessed with diversity of opinion and circumstances. We have seen tremendous highs and endured in a valley of tough times. I am proud every day that Oregon's nursery and greenhouse industry is solution oriented. The association works hard every day to ensure that the industry is in the best possible position to grow and succeed in the marketplace.

But fear is a real thing. It clouds the best of intentions and it is critical that reasoned minds prevail.

## Fear itself

The first inauguration of Franklin D. Roosevelt as the **32nd President of the United States** was held on Saturday, March 4, 1933. It was the last inauguration to be held on the **constitutionally** prescribed date of March 4; the **20th Amendment, ratified** in January 1933, moved Inauguration Day to January 20.

The inauguration took place in the wake of **Democrat** Roosevelt's landslide victory over **Republican** incumbent **Herbert Hoover** in the **1932 presidential election**. With the nation in the grip of the **Great Depression**, the anticipation of the new president's inaugural speech was high. Confidence was in short supply.

Many sweep under the rug the fact that wide unemployment was blamed on an influx of Italian and Irish immigrants. The deep resentments following the Roaring

Twenties had given way to widespread fear and discontent. FDR hit that issue head on.

"So, first of all, let me assert my firm belief that the only thing we have to fear is fear itself — nameless, unreasoning, unjustified terror which paralyzes needed efforts to convert retreat into advance," he said. "In every dark hour of our national life, a leadership of frankness and of vigor has met with that understanding and support of the people themselves which is essential to victory."

In other words: when things seem to be coming apart, the nation steps up. But there's a significant difference between then and now.

In the 1930s, people were detached from information sources. There was no television, and forget about smart phones; one needed a radio or newspaper to keep up with the news of the day.

Today, by contrast, we're the opposite of detached from the news. We're saturated with information. But paradoxically, that doesn't make us better informed.

Curiously, with all this technology at our ready command, we've seen an explosion of half-truths by so-called "news sources." In this day of clickbait news cycles, we are being overwhelmed by a storm surge of information.

## Disenfranchisement is not new

In Charles Dickens' *A Tale of Two Cities*, there's a famous passage describing the French Revolution as vividly as a painting. It was an era of passionate change, and the description may well ring true for all of us experiencing the current events of our great nation.

*"It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness, it was the spring of hope, it was the winter of despair, we had everything before us, we had nothing before us, we were all going direct to Heaven, we were all going direct the*



Jeff Stone  
OAN EXECUTIVE DIRECTOR

*other way — in short, the period was so far like the present period, that some of its noisiest authorities insisted on its being received, for good or for evil, in the superlative degree of comparison only."*

Dickens was saying that tumultuous times provide insight into the best and worst of our nature. I certainly agree.

## Understanding will prevail

Sailing into such fear-based headwinds can be a struggle, but we have tools to aid us in our journey.

We can utilize reason. We can focus on solutions. We can realize that not all perspectives different from our own are horribly misguided or evil — in fact, most are not.

By doing these things, we'll turn headwinds of fear into tailwinds of making a difference. Or, we can use our differences as a gateway to vitriol. It's our choice.

The responsibility rests with all of us not to abandon the formal rules of discourse. The first requirement is keeping a basic respect for others in the conversation. These rules are embedded in our social fabric to keep as much emotion out of an argument as possible.

I must admit that in this era of instant messaging and chatspeak, I see fractures in our societal bond. We've opened the door to getting our chain yanked. We react when we should reflect.

It is our responsibility to haul that impulse in and hit the reset button.

The OAN is a place for all voices to be heard. We work together to resolve the issues that are in front of us. We welcome your voice — and we can use your help setting an example for others. ☺



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