

Digger

OCTOBER 2021

Nature is in the house

Growing for the
houseplant trend

PAGE 15

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On the cover: An view of *Monstera adansonii* from above. The variety grows like a vine and hangs in containers. PHOTO COURTESY OF FESSLER NURSERY.

On this page: Left: Pink flowers of the *Medinilla sedifolia* makes the plant a popular pick on the Little Prince of Oregon Nursery Etsy site. PHOTO BY LITTLE PRINCE OF OREGON NURSERY. Right: Port Orford cedar is trialed for reforestation by Oregon State University researchers. PHOTO COURTESY OF OREGON STATE UNIVERSITY



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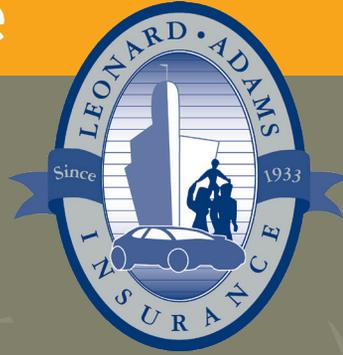
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Digger magazine is an official publication and a member service of the Oregon Association of Nurseries, 29751 S.W. Town Center Loop W., Wilsonville, OR 97070.

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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.

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Kyle Fessler

**Working for
future generations**

**When I look back on this past year,
countless emotions come to mind.**

There is one in particular that I keep circling back to, and that is gratitude.

For those of us in the nursery industry, we have much to be thankful for. While many sectors were hit hard by the pandemic, ours experienced rejuvenation unlike most of us had ever seen. There was more effort put forth behind the scenes to keep our doors open than many of us will ever know, and we should all be grateful to be in the position we are today.

I'm also grateful to all the Oregon Association of Nurseries staff and member volunteers that helped guide me through this challenging year. Past President Jim Simnitt set the tone in 2020, taking on countless challenges the association faced with poise and confidence.

Long before Jim held the post, there was a long line of industry leaders that set us up for success. Those of you familiar with the OAN office know of the long wall of past Presidential portraits that line the hall leading back to the Dick Joyce Conference Room. There are plenty of familiar faces along that wall, especially for the current crop of second- and third-generation OAN volunteer leaders, whose parents led the OAN decades ago. Those that served before us had the foresight to build reserves when times were good, and their commitment to a sustainable future of the association undoubtedly helped carry us through this difficult time.

**For those of us in the
nursery industry, we have
much to be thankful for.**

I see the same commitment to future generations on our board and committees today. Led by our incoming president, Josh Robinson of Robinson Nursery, we have a fantastic group of volunteers that show up when called upon and put forth their full effort toward the cause. At a time of constant chaos in our daily lives, they have made the commitment to fight the necessary battles on our behalf, and to continue to lay the groundwork for our industry to succeed in the future.

Without a doubt, the nursery industry in Oregon is a family affair. Many of our operations are multi-generational, and have plans to continue the family legacies going forward. I'm extremely grateful to my own family, especially my wife, Mollie, who juggles five kids like it's a walk in the park. They have allowed me the time away from them and the operation to serve the membership.

There's always difficulty dedicating time away from our farms and families. My time away was absolutely well spent, and I would encourage anyone to get more involved in their association in any way they can. The skills, knowledge, and relationships I've gained will undoubtedly pay dividends in our own operation for years to come.

God willing, we've also contributed to building on to that solid foundation for our own children and future nursery generations to come. ☺



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*.

OCTOBER 8-10

PORTLAND FALL HOME & GARDEN SHOW

Taking place at the Portland Expo Center, 2060 North Marine Dr., Portland, Oregon, the official show of the Home Builders Association of Metro Portland will entertain and inform homeowners about the freshest garden designs and themes. There will be a plant and nursery marketplace, competitions, and other great show features. The OAN's Plant Something Oregon initiative will be there to distribute the Retail Nurseries and Garden Centers Road Map, which features OAN-member retailers and landscapers in Oregon and Southwest Washington. Visit www.homeshowpdx.com for details.

OCTOBER 18

SAIF HARVEST CELEBRATION

Instead of the usual SAIF Agri-Business Banquet, the Salem Chamber of Commerce will be holding a luncheon event from 11:30 a.m. to 1:30 p.m. in the Salem Convention Center, 200 Commercial St. S.E., Salem, Oregon. The event will celebrate the agricultural community of the mid-Willamette Valley. Barb Iverson will deliver a keynote address about how the past year has affected Iverson Family Farm, and a Future Farmers of America state officer will also talk about a contemporary ag topic. To register, visit tinyurl.com/5fwrpsuu

OCTOBER 27-30

NATIONAL FFA CONFERENCE & EXPO

The Future Farmers of America (FFA) will host their 94th annual convention Indianapolis Convention Center, Indianapolis, Indiana, in person, while also providing a virtual component for participants who cannot be there. FFA members and guests from across the country will participate in general sessions, competitive events, educational tours, leadership workshops, an expo and shopping mall, volunteer activities and more. It is one of the largest annual student conventions in the world. Visit <http://convention.ffa.org> to learn more.

NOVEMBER 2-4

OAN ANNUAL CONVENTION

Registration and room reservations are open for the annual Oregon Association of Nurseries Convention, which will take place Tuesday–Thursday at the Grand Wailea, a luxury oceanfront resort on Maui, Hawaii! The agenda includes hospitality suites reception, Annual Membership Business Meeting and General Session, and President's Awards Banquet. Go to www.oan.org/convention for details. Sponsorships are available. Contact Allan Niemi at aniemi@oan.org or 503-682-5089 for details.



OCTOBER - VARIOUS DATES

FIRST AID AND CPR CLASSES

OAN-sponsored First Aid and Adult CPR training classes started this fall. Sign up early to guarantee your seat in the course, as registrations will only be accepted up until two days before the class is scheduled to take place. Successful completion results in certification that is good for two years. Four classes will be held at the CPR Lifeline facility, 9320 S.W. Barbur Blvd #175, Portland, Oregon. Sessions on October 7 and November 11 will be conducted in English, and the classes on October 11 and November 15 will be in Spanish. Three classes will be held at the OAN office, 29751 S.W. Town Center Loop West, Wilsonville, Oregon. The session on October 14 will be conducted in Spanish, and later two sessions on October 21 and December 7 will be in English. One Spanish-only class will take place on October 28 at Iseli Nursery, 15241 S.E. Tickle Creek Road, Boring, Oregon. Register online at www.oan.org/cprclass

NOVEMBER 14-15

OREGON WATER LAW CONFERENCE

The 28th annual Water Law Conference will be held in the Two World Trade Center Building, 121 S.W. Salmon St., Portland, Oregon. Meta Loftsgaarden, executive director of the Oregon Watershed Enhancement Board has been invited to present the keynote speaker. General and ethics credits may apply for those who attend. To register, log on to www.theseminargroup.net.

DECEMBER 6-10

IRRIGATION SHOW & EDUCATION CONFERENCE

The world's largest in-person trade show dedicated to irrigation will take place in San Diego Convention Center in San Diego, California, following the latest protocols set by the Centers for Disease Control and Prevention. Attendees can make plans to see technical session and seminars, view new products and technologies, and find solutions to all issues in agriculture, landscape, lighting, golf, turf irrigation and specialty solutions. Visit www.irrigation.org/2021Show for more information,

JANUARY 12-14, 2022

NORTHWEST AG SHOW

The 52th edition of the Northwest Ag Show will be held at the Oregon State Fair & Exhibition Center, 2330 17th St. N.E., Salem. The annual event focuses on the emerging trends in the ag industry such as small farming, technology and education. The show coincides with the Salem Area Chamber of Commerce's SAIF Agri-Business Banquet on Friday, January 17 at the Salem Convention Center, 200 Commercial St. S.E., Salem (tinyurl.com/y5vba3gp). Both events contribute to Ag Week celebrations for the Salem area. For more information, log on to northwestagshow.com.

JANUARY 25-26, 2022

UTAH GREEN

Presented by the Utah Nursery & Landscape Association, the event will be held at the Mountain America Expo Center, 9575 State St., Sandy, Utah. The show features green industry vendors from across the nation and offers seminars on topics such as business management, landscape design, plant material, irrigation, and many others. Full details are available on www.utahgreen.org. ©

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*2019, USDA Census of Agriculture

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Northwest News

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



American Farm Bureau urges supply chain improvements

The American Farm Bureau Federation has asked the U.S. Department of Agriculture to help address critical supply chain problems affecting farmers. The problems have arisen largely due to the pandemic.

The AFB's letter to Secretary of Agriculture Tom Vilsack urges the agency to:

Bolster the role of small capacity meatpackers in the supply chain, and continue efforts into grant programs to help them become Food Safety and Inspection Service inspected.

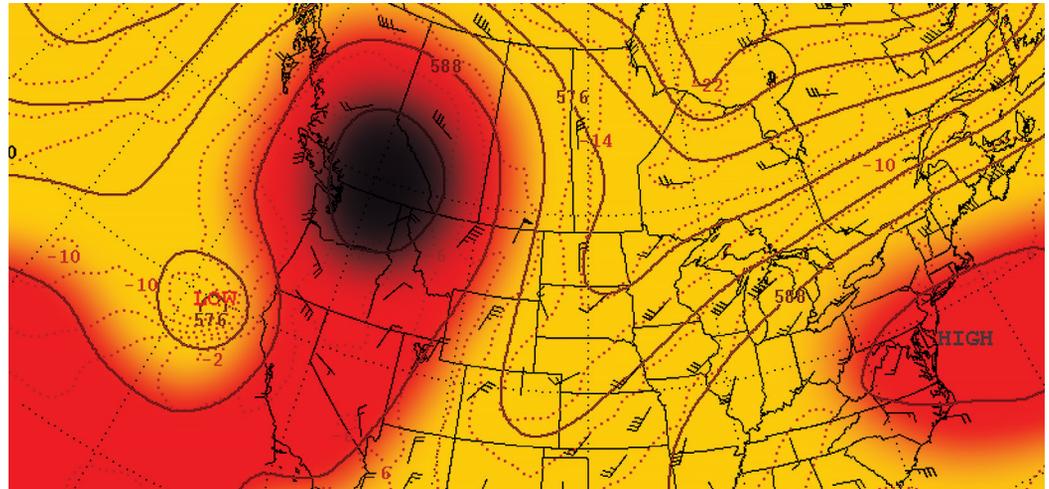
Account for how much costs increase for farmers when deciding on tariffs and using scientific data in pesticide registration.

Work with U.S. Department of Transportation so that truckers and other drivers have leeway to make timely deliveries of essential products, and support the improvement of the rail and port systems.

Streamline guestworker application processes and arrival times across with all federal agencies and ensure personal protective equipment is available for all workers.

Consider how trade actions impact agricultural exports, and resolve outstanding issues with the U.S.-China Phase 1 Agreement.

The AFBF expressed a willingness to work with the USDA and the Biden Administration to find solutions to all the issues of concern. Download a PDF of the letter at tinyurl.com/3w5tc6vz



The high pressure area caused the heat dome on western North America, which led to the Pacific Northwest heat wave. PHOTO COURTESY OF NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

SUMMER HEAT, SMOKE AND DROUGHT STRAIN AGRICULTURE

Unprecedented drought conditions compounded by extreme heatwaves and wildfire smoke covering the Pacific Northwest near the peak of harvest time caused tremendous strain for farm workers and farm owners alike, according to a report from the *New York Times* (New York City).

Both Oregon and Washington instituted emergency rules to protect farmworkers from unsafe working conditions. Protective shade, benches, and other resources appeared to be improvised in some cases, and some growers shifted their hours of operation to avoid the heat of the day.

Groups such as the Oregon Farm Bureau supported the new rules, but said there is a breaking point without federal and state programs to help agricultural businesses. They noted that temporary housing was not meant to withstand such weather conditions. Additionally, the conditions caused irreversible damage to certain crops prior to harvest, thus harming both the workers and the bottom line of their employers. Read the full story at tinyurl.com/f22mfn3f

COVID-19 HAS LONG-TERM IMPACTS FOR FARMWORKERS

A recent survey of 300 farmworkers and found that the COVID-19 pandemic has caused long-term economic, social, physical and mental health challenges, according to a release from the University of Oregon. The university and 11 other groups across the region conducted the study.

Latino and indigenous people from Mexico and Guatemala experienced disproportionately higher infection rates. They represent 24.2% of Oregon's positive cases, but only 13% of its population. Oregon Health Authority learned that the crowded living conditions and the working conditions of some agricultural worksites and food packing facilities limited the ability to socially distance and prevent the spread of the virus. The inability to work and resulting loss of income caused a spike in stress, anxiety, and depression. However, 91% of the farmworkers surveyed didn't have access to mental health treatment.

The results were shared with U.S. Secretary of Labor Marty Walsh during his recent campus visit. The study included 14 policy recommendations to help farmworkers and their families. Visit tinyurl.com/29k3ea7e to read more.

More COVID-19 coverage online

Further updates on how the COVID-19 virus is impacting the greenhouse and nursery industry is online at www.diggermagazine.com/category/coronavirus. We are reporting on the most current information as of press time, but please check online for the most up-to-date information.



BIDEN ANNOUNCES WORK-PLACE VAX-OR-TEST RULE

In early September, President Joe Biden announced a federal COVID-19 vaccine-or-test requirement for all companies with more than 100 employees. It will be enforced through the U.S. Occupational Safety and Health Administration (OSHA) via a new emergency rule that, at press time, was yet to be formally issued.

In Oregon, enforcement of such mandates falls to Oregon OSHA, which will need to issue rules of its own to make it effective.

The federal mandate takes the view that preventing transmission of the COVID-19 pathogen is a valid workplace safety issue. It requires employers to ensure that workers are either vaccinated, or tested once a week for the pathogen. Estimates say it would cover some 100 million people, some already

vaccinated and some not. The hope is to make an impact on the percentage of the general population that is immunized.

“Many of us are frustrated with the nearly 80 million Americans who are still not vaccinated, even though the vaccine is safe, effective and free,” the president said.

Farm groups are waiting to see how this would be applied to agricultural employees and workplaces, the *Capital Press* newspaper (Salem, Oregon) reported. The administration didn't say whether seasonal employees count towards the 100-worker threshold to be subject to the vax-or-test requirement.

Once the emergency rule is in place, covered workers in ag and other fields would need to be fully vaccinated within six weeks.

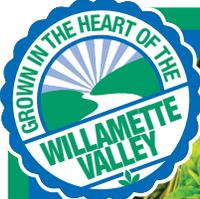
“Personal responsibility is critical for the general welfare of our residents,” OAN Executive Director Jeff Stone said. “As we

saw with the Farwest Show, the delta variant has required all of us to adjust the way we do things. I remain hopeful that we as Americans can turn the corner on COVID.”

USDA OFFERING ASSISTANCE FOR ORGANIC CERTIFICATION

The USDA is offering financial assistance to organic producers and handlers with the cost of receiving and maintaining organic certification through the National Organic Program, according to a release from the agency.

Successful applicants can be reimbursed for 50% of a certified operation's allowable costs — up to \$500 for each category made between October 1, 2020 and September 30, 2021. Eligible costs include application fees, inspection costs, fees related to equivalencies agreement >>



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Northwest News

Free maps outline the agricultural products grown in the different regions of Oregon.

IMAGE COURTESY OF OREGON AGRICULTURE IN THE CLASSROOM FOUNDATION

and arrangement requirements, travel expenses for inspectors, user fees, sales assessments and postage.

The Organic Certification Cost Share Program (OCCSP) is accepting applications until November 1. Organic farmers and ranchers may apply through an FSA county office or a participating state agency. For more information, visit www.usda.gov/topics/organic

PRINTED MAP TEACHES KIDS ABOUT OREGON AGRICULTURE

The Oregon Agriculture in the Classroom Foundation has published a full-color, 24-inch by 36-inch map of Oregon to teach students about what is grown in each of the seven agricultural regions of the state. *Grown in Oregon* uses icons to indicate which leading fruit, vegetable, protein, grain, and dairy products are made in each county in one easy-to-see visual. Teachers can use the tool to show students the role agricultural producers play in daily nutrition needs and the abundance of healthy resources all around us.

The maps are free to Oregon teachers. Anyone else can receive up to five posters for a \$10 shipping fee. To download a letter-sized PDF version of the map, visit tinyurl.com/fevfj3n8. More information is available at oregonaitc.org.

UNIVERSITY FOCUSES ON CONIFER SEEDLING EFFICACY

University of Idaho researchers are developing a drought-tolerant western larch to satisfy the demand for reforestation seedlings. Long, dry periods during extensive wildfire seasons challenge the viability of newly planted seedlings. Creating seedlings that acclimate to the conditions quickly will prevent a lot of wasted time and expense. The program is led by Andrew Nelson, a director for the Center for Forest Nursery and Seedling Research and the Franklin H. Pitkin Forest Nursery in Moscow, Idaho.

So far, seedlings are shorter and bigger around, with dense root systems. Samples with genetic strains that show drought

resistance are selected, and trees are tested to recognize dry conditions from the start. Nelson is also planning to survey nurseries for seedling demand. Read more online at tinyurl.com/24zfk2d

HYBRID COURSE FOR NURSERY WORKERS BEGINS OCTOBER 18

Oregon State University Extension offers an online certification for nursery managers and frontline workers without a formal education in their field of expertise. Students enrolled in the *Disease Prevention and Diagnosis for Nursery Crops* course will review the basics of plant pathogens and diseases for a broad audience of working professionals. Once the course is complete, students will earn a Plant Health certificate.

The self-paced course is offered in English and Spanish year-round online. Students must have access to the internet and a computer. It will take an estimated three hours each week to complete each of the five modules and the mandatory graded exam during the last week. An extra hour of study time is encouraged each week. The modules include short online lectures, a quiz, additional resources and an assignment. Students must score 70% or above to receive a certificate.

A 6-week hybrid session will run October 18–November 28. Instructors can tour your facility, grade assignments, and interact with the participants to review the courses information. The cost is \$100. Registration and full course information is available at tinyurl.com/jst5c6as

CENTRAL WASHINGTON AREA QUARANTINED FOR BEETLES

The Washington State Department of Agriculture (WSDA) will quarantine parts of Yakima and Benton counties due to a Japanese beetle infestation, according to a report by *Capital Press* (Salem, Oregon). The boundaries are not determined at this time, but more than 20,000 specimens have been trapped near the town of Grandview, Washington. More time is needed to see



how the quarantine would impact businesses, so no rules or boundaries have been developed at this time. Read the full story at tinyurl.com/tu8cr66k.

Contact Assistant Director Brad White of the Plant Protection Division at 360-902-1907 or bwhite@agr.wa.gov if you would like to participate with the WSDA on the matter.

Japanese beetles can eat many agricultural products, including fruits, flowers and buds. In the Portland, Oregon area, the Oregon Department of Agriculture had treated 12,000 properties and 4,000 acres of lawns and planting beds with Acelepryn G in the spring.

Announcements MA LAUNCHES LIQUID MYCORRHIZAL INOCULANT

Mycorrhizal Applications (MA) has developed a user-friendly liquid mycorrhizal inoculant for professional use on medium to large growing operations, according to a release from the company. MycoApply® EndoThrive is a suspended liquid concentrate formulation of active ingredients on a non-aqueous liquid carrier. The product can be tank-mixed with liquid fertilizers, which helps improve application efficiency on site without additional steps by laborers in the field. It also has a two-year shelf life, which is an improvement from previous products.

EndoThrive features four species of endomycorrhiza that will help about 85% of plant species. It is available in eight one-pint bottles per case. Dilute eight fluid ounces per 100 gallons of water. One bottle can create 200 gallons of application solution. More information about the MycoApply EndoThrive and its benefits, visit mycorrhizae.com/mycoapply-endothrive. ©

Let's address a dry topic

IN THE AUGUST ISSUE OF *Digger*, I discussed some of the effects of the very dry summer season, not only in the Pacific Northwest, but in much of the western United States. Many readers and other gardeners commented about the article. As a result, I looked more closely at the surrounding neighborhood, as well as other areas.

Many mature trees appear to be living under very stressful conditions. The climate changes are definitely stressing many of the plants, as well as the gardeners. Gardeners seem to be unanimous when discussing the current climate situation, with the most common phrase being, "We need rain."

Adjusting to conditions

In most home garden conditions, the gardener can usually provide adequate moisture for small trees and shrubs, but providing water for large trees is usually not an easy task. Recently while having dinner in an outdoor space at a local restaurant, I noticed that the surrounding trees appeared to need a thorough soaking with water. I asked the owner if he was watering them. He replied, "Yes, as best as I can."

It was clear what he meant because over

90% of the root zone was under hardscape. The trees were initially planted with the expectation that there would be adequate ground water, but now that is not the case.

Since whether we get any rain soon is not in our control, we need to adjust to the factors that we are currently experiencing. When visiting garden centers and seeing the fall bulbs arriving, I wonder if it connotes a signal of optimism for spring or just a sign that perhaps we have not changed our thinking about climate change.

As gardeners and garden centers, we need to adapt to what might become new gardening practices. These new practices are much more involved than just learning about new plants that can tolerate dry conditions. They also include learning more about the soil, fertilization, soil amendments, sun and shade requirements, and meeting the gardener's desires. There is no precedent to build upon, but all these factors might need to be re-adjusted considering the current climate situation.

One of the comments that I received from my previous *Digger* column was from Barrie Coate, who lives in Fairfield, California, in the north bay sub-region



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.

of the San Francisco Bay area. Barrie is a well-known certified arborist as well as a horticultural consultant. He has previously witnessed many of the environmental changes in his region that we are now seeing in the Pacific Northwest.

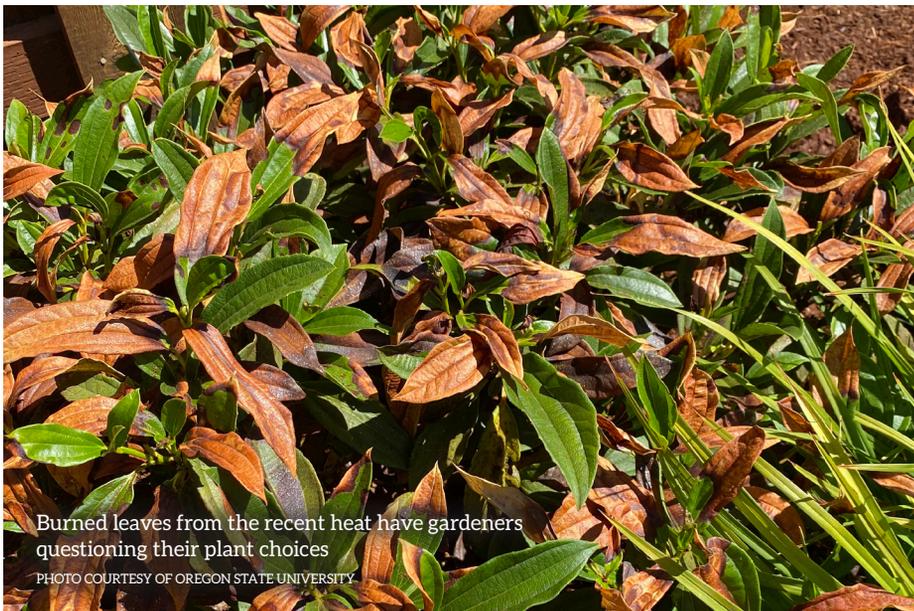
"Unfortunately, homeowners and many landscape architects refuse to change their plant decisions because the landscapes around them are composed of species they are familiar and comfortable with," Barrie wrote. "It may require many years for us as plantsmen to adjust and help owners and landscape architects to accept plants they are not familiar with for the sake of more climate-tolerant landscapes."

The top of the zone

Most garden books, plant catalogs, internet plant descriptions and general plant usage information will mention a low temperature zone. That is what is considered the low temperature that a particular plant can withstand without damage.

"One factor which is commonly understood is low temperature tolerance, but less mentioned is high temperature tolerance," Barrie continued. "Factors which are seldom mentioned, but which are critical to plant success, include soil chemistry, irrigation water chemistry, topsoil depth and percolation rate, and sub soil texture and percolation rate. The excitement over the use of native plants, as important as the subject is, neglects to emphasize, in most literature, how important soil texture and soil percolation rates are to plants."

Using the term "native plants" 



Burned leaves from the recent heat have gardeners questioning their plant choices

PHOTO COURTESY OF OREGON STATE UNIVERSITY

often conjures up a feel-good moment with the gardener, because the idea that a plant is native somehow makes it more acceptable. Many native plants fulfill a much-neglected niche by providing a food source for many pollinating native bees, butterflies, and other beneficial insects.

Certainly with commercial development, the loss of native habitat is staggering. If we can replenish even a small portion of the native habitat, it is a benefit for the planet. Just because a plant is a native does not mean that it will easily fit into many modern garden settings. However, gardens are constantly changing and slowly adding certain native plants can be a positive step in helping some of our native insect populations.

Soil chemistry is often an overlooked factor in planting. The standardized response to most questions regarding soil – “just add compost and fertilizer” – is

not always the best response.

Does compost really need to be added to the soil of a plant that prefers a porous and fast draining environment? Is adding phosphorus when planting a new shrub or tree to “encourage root development” necessary if the soil already has a high phosphorus content? These are just two common questions that need to be addressed.

An educational mission

Garden centers may have neglected opportunities to capture some of these new ideas. It is safe to say that in the horticultural industry, we are treading into areas that have probably not been thought much about. The zone for low temperature tolerance is usually noted by gardeners, but few have considered high temperature tolerance, or all of the specific chemical compositions of their soil.

Thus, it seems that garden centers have a great new educational mission in teaching their customers about the horticultural effects of the current climate changes. It is vital that we all keep abreast of new information and process it so that it can be passed on to our customers. Universities with horticulture departments and extension services are often excellent resources for new gardening information.

In this unprecedented time, we all need to work diligently, keep an open mind and be willing to accept and adapt new scientific principles that can help our gardens and the trees and shrubs that are planted to perform at their optimal level. Much of the implementing the challenge of coping with climate change will fall to garden centers and their staff. It is important that they meet that challenge and continue to inspire hope in gardeners. ©

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Classic spider plants are grown in hanging pots

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Nature is in the house

A back-to-earth ethic fuels the lust for new, classic and collectible house plants

BY KYM POKORNY

IN THE 1970S, it seemed like everyone decorated their indoor space with a pothos (*Epipremnum aureum*) winding around the ceiling and a dusty-looking *Coleus* on the windowsill, but houseplants fell out of favor during the more technology-driven '80s.

Now they've come roaring back.

In 2020, 37.6 million — or 29.3% — of U.S. households participated in indoor houseplant gardening, according to a National Gardening Association survey. Of those surveyed, 48% increased their indoor houseplant gardening during the pandemic. Twenty-two percent of those who spent money on gardening supplies last year spent more on houseplants and supplies due to COVID-19 stay-at-home orders.

Those figures don't come as a surprise to anyone in the nursery industry. Sales of houseplants have been building, but went up so much during the pandemic that growers were caught by surprise.

"Demand started to go up three to four years ago," said Tanner Fessler, sales and supply manager for **Fessler Nursery Co.**

(Woodburn, Oregon). "The first year we were building our clientele, but then it increased 45% and then 50%. When the pandemic started, we had almost no sales at first, but once the garden centers figured it out, the demand skyrocketed. We couldn't keep up."

Demand keeps going up

Though sales of old standards like *Philodendron*, *Dracaena*, sansevieria (formerly its own genus, now classified under *Dracaena*), palms and *pothos* remain steady, new varieties bring a pretty price. Just like the housing industry, prices for houseplants are through the roof. Bidding wars and people who "flip" plants encourage more spending.

Demand doesn't seem to be going down — if anything, it's still going up — and, as Fessler pointed out, "If you haven't ordered for 2022, chances are you'll be sorry."

At Fessler, *Philodendrons*, *Peperomia* and ric rac cactus (*Disocactus anguliger*, aka fishbone or zig zag cactus) stay at >>

Nature is in the house

Ficus elastica, also known as a variegated rubber plant, is a colorful houseplant option at Fessler Nursery. **Next page:** Mother-in-law's tongue (*Dracaena trifasciata*), is an easy option for first-time houseplant buyers.

PHOTOS COURTESY OF FESSLER NURSERY

the top of the best sellers list. The cactus has lobed leaves that look like a backbone and, with enough light, pink and white orchid-like blooms.

Tradescantia plants are popular, too, according to Fessler. *Tradescantia* 'Pink Panther' fills out with very small leaves of pink and white that grow in a perfect bowl. 'Tortuga' is green with the undersides of its leaves a purplish, reddish-pink. "Kind of like a disco ball, it looks different at different angles," Fessler said.

"One of our new houseplants is *Senecio rowleyanus* or string of pearls," he said. "These are something we're growing more of. There are some crazy ones coming out, like string of watermelons, string of fish and string of turtles. They are slowly replacing *Dracaena* and *Sansevieria* plants, but in the long term, I don't think they will be the next *Monstera*, but they are really popular."

While the pandemic had a big role in driving the current houseplant hysteria, it's not the only factor. It just helped turn a growing craze into a massive fad, as people spent so much time at home being swept away by new hobbies.

Back in the macrame-drenched '70s, the back-to-the-land, conservation-conscious sector of society wanted to be closer to nature. That yearning seeped into popular culture, as more and more people bought houseplants to surround themselves in greenery.

"Then the hippies grew up and started landscaping their yards so houseplants



went by the wayside," said Michelle Bundy, a regional sales manager of wholesale indoor foliage for **Casa Flora Inc.**, grower of ferns and houseplants. "Now we've gone full circle and want to connect to nature again, which is reflected in our desire for houseplants."

Growing houseplants gives people a sense of accomplishment, according to Bundy. Studies have shown that just being around plants decreases stress and increases happiness.

"The practice of growing houseplants is calming," Bundy said. "It gives you a sense of purpose and that sense of purpose

gives you satisfaction. I find this myself. It's very rewarding and there's always something new."

Endless variety and expensive tastes

Breeding is seeing to it that customers don't get bored. New plants are coming on the market in increasingly more mind-bending colors and variegation, assuring that new converts have something to inspire them. The more indoctrinated have something to keep them interested and coming back for more.

New or rare plants can sell for thousands of dollars. A quick internet search on the shopping site Etsy revealed a variegated *Monstera* that was available for almost \$10,000, and many *Philodendron* plants selling for more than \$5,000.

But nothing on Etsy beats the most expensive houseplants in the world – *Monstera adansonii variagata* plants have sold for a whopping \$38,000. That's the most expensive, unless you count the Shenzhen Nongke Orchid that sells for \$200,000 or the Old Pine Bonsai for a staggering \$1.3 million.

The out-of-sight prices and collector vibe of the houseplant fad in the U.S. is reminiscent of the Tulip Mania in Holland



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in the early 17th century when investors paid the equivalent of a year's pay for a tulip bulb. When the market for tulips crashed, many a Dutchman was ruined.

"As a society, we've adopted the idea that houseplants are cool and collectable," said Mark Leichty, director of business development for **Little Prince of Oregon Nursery** (Aurora, Oregon). "What did we collect before — coins, stamps, baseball cards? Collecting things has slowly taken on a new aspect. We want to collect something alive that we can nurture."

Ann Amato, propagation and production specialist at **Cistus Nursery LLC** (Sauvie Island, Oregon) and **Secret Garden Growers LLC** (Canby, Oregon), fell in love with houseplants as a teenager. She loved to read and wanted to bring nature indoors, so she did. Her collection now tops out at 500 plants spread throughout her three-story home in Portland, some under grow lights.

"If you have plant stands, you can >>>

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Nature is in the house

Fessler Nursery has dedicated greenhouse space for their production of tropicals.

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collect a lot of houseplants,” Amato said. “And I’m curious. I want to understand how a plant grows. For some — the more experienced people — it’s status, too. It has become competitive like orchid shows.”

Powered by social media

Social media drives that competitive-ness, according to Leichty. From January to November 2020, TikTok, a social media vehicle popular with younger generations, saw a 156% increase in home and garden content creation. Furthermore, according to Google, searches for houseplants hit record highs.

Facebook houseplant groups, Instagram and Pinterest eye candy collections and other online vehicles create an extremely effective way to market plants. Online word-of-mouth disseminates information about new varieties, goad bidding

wars, and ease the exchanges of information that provide beginners with a more positive experience.

The most popular houseplants belong to the aroid family, according to Amato. Plants like *Philodendron*, *Pothos* and *Monstera* rank at the top. *Monstera* appeals to people because they’re easy to grow and can have dramatic foliage with holes and have striking variegation.

At Little Prince, where they grow 100 to 200 different houseplants, one of the biggest sellers is *Monstera adansonii*, a vining plant with gaps in the foliage similar to more common *Monstera* but much smaller. Even more popular is *Albuca spiralis* ‘Frizzle Sizzle’.

“We have not been able to keep enough ‘Frizzle Sizzle’, Leichty said. “In the wild in South Africa, it goes summer dormant, but not in cultivation. It’s very simi-



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Monstera deliciosa is a very popular variety with contemporary shoppers.

PHOTO COURTESY OF FESSLER NURSERY.

lar to *Amaryllis*. It blooms multiple times a year with beautiful yellow flowers. When you see it, it's one of those things you go 'Oh my god, I have to have one of those.'"

In production now at Little Prince is a cute little plant called *Medimilla*, a prostrate form with tons of fuchsia-colored flowers. They were able to get enough grown to sell thousands, which started online at \$50 apiece, Leichty said.

Millennials are credited with kicking off the current obsession with houseplants. As they are not buying homes and having children, their need for nurturing finds an outlet in growing plants.

"Plants are the new pets," said Rebecca Orr, marketing manager at **Terra Nova Nurseries** in Canby, Oregon. "Young people don't own homes and don't have a lot of space or even a balcony so houseplants give them the opportunity to nurture

something. You can have houseplants in an apartment or dorm room. It's an investment you can take with you."

But it's more than that, she said. Millennials aren't the only ones filling their homes with houseplants. Plants are available where shoppers buy milk or pick up a prescription. Everyone seems to be trying their hand at growing a few. Once they have one, the obsession kicks in. The visual aspect of houseplants draws people in and with the pandemic and social media, it was the perfect storm for houseplants' popularity to hit new heights.

Terra Nova concentrates on *Begonia* and *Coleus* for houseplants. The biggest sellers are *Begonia* 'Ruby Slippers' — winner of Best Novelty at the Colorado State University plant trials — and *B.* 'Silver Treasure'.

"We had 'Silver Treasure' at the



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Cultivate show,” Orr said. “Dozens and dozens of people would stop. It forms a completely big and solid mound and the underside of the leaves is deep maroon. It’s so tough. It was the plant of the event.”

Not everyone follows Amato’s example of decorating their home with 500 plants, but interiorscaping is a real thing. Public spaces are decked out with more plants than ever. Home shows, magazines and social media illustrate how to design your home with houseplants and the

masses have followed suit.

Horticultural social media influencers like Summer Rayne Oakes, Maria Failla and Laura LeBoutillier hype up houseplants, and people listen.

Oakes is a model in New York with a degree from Cornell University in environmental science and entomology. She writes a blog, has four books under her belt and has millions of fans.

Failla is comfortably ensconced in hor-

ticulture with the podcast *On the Edge* that has close to a million subscribers.

LeBoutillier, who Leichthy describes as the biggest influencer in horticulture today, has five million followers of her YouTube channel *Garden Answer*. *Little Prince* has established an informal relationship with LeBoutillier and sent her a box of houseplants that she unveiled on her show.

“We began by sending her a box of



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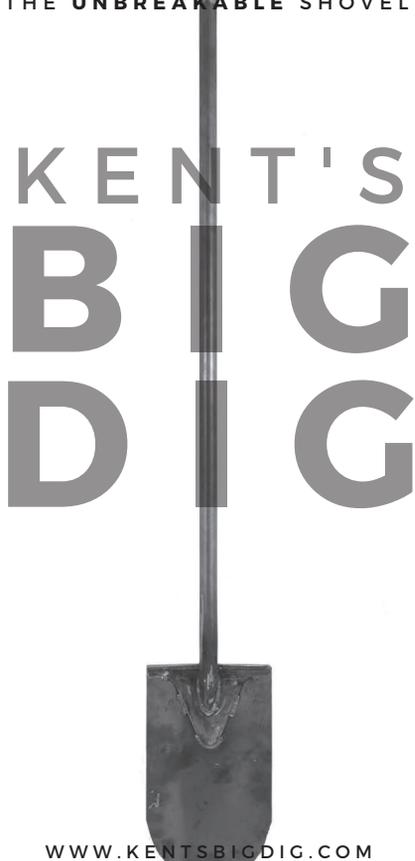
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Previous page, left: Larua LeBoutillier shared an unboxing video of Little Prince of Oregon plants. PHOTO COURTESY OF GARDEN ANSWER

Previous page, right: *Monstera adansonii* is offered as a trainable vine variety. PHOTO COURTESY OF LITTLE PRINCE OF OREGON NURSERY

plants,” Leichty said. “When she did her show we had a million hits within a day. It crashed our server. She’s been very helpful in promotion for us. We plan to pursue it.”

Any business can do the same, but Leichty recognizes the time, money and effort it takes to find an influencer and approach them. The relationship becomes a 50/50 exchange. Your plants and the influencers’ reach.

What the future may hold

What comes next? That’s the million-dollar question. The consensus is that the houseplant craze will continue, but level out. Prices may — and that’s a big may — drop. Breeding, shipping, labor and greenhouse space contribute to the high prices.

“Whatever availability got sucked up,” Orr said. “We had a very good year. A lot of people did. Any available material you could get, people were taking. There was a massive push to have anything on the shelves. Everyone was running out. They were less concerned about getting people to buy the rarest plants. They took what they could get.”

“I think there’s going to be a leveling off,” Orr continued. “Customers will hone their taste. That happens in gardening evolution. First, you want everything. Then you start choosing quality plants that really appeal to you.”

Both Fessler and Little Prince are expanding their houseplant production and expect sales to continue to be brisk.

“We are preparing for the future by building five new greenhouses this year,” Leichty said. “That’s unprecedented for us and we’re building them with houseplants in mind. Will the demand continue? Absolutely. We have our finger on the pulse of gardening both indoor and outdoor. I just don’t see it going away. We think the colonization of Mars will happen before it ends.” ☺

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

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Key Responsibilities:

1. LMA- lead, manage, and hold the production team accountable for execution of tasks, processes, and procedures.
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 3. Inventory and Crop Grading Accuracy- oversee and ensure that processes are followed to maintain the accuracy of the production inventory and grading of the crop.
 4. People and Equipment Utilization- Organize, plan and execute the allocation of equipment, people and supplies for Production and Harvest Seasons.
- Minimum Qualifications: 5+ years of experience in tree, nursery, fruit & vegetable or nut production. 5+ years management experience managing large crew sizes. Bi-lingual English/Spanish preferred. To submit your application for this position, please go to www.dcaoutdoor.com/careers. Completion of Culture Index survey. Without survey completion, your application will not be considered. Please copy and paste the following into your browser in order to complete the survey: <https://go.apply.ci/s/A550CC0000>

EMPLOYMENT

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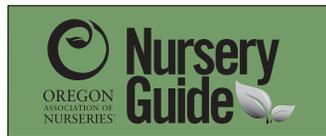
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EMPLOYMENT



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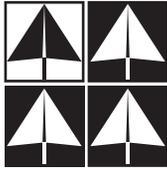
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GROWING KNOWLEDGE

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



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

Restoring a conifer classic

Breeding disease-resistant Port Orford cedar for reforestation and the horticulture industry

BY RYAN CONTRERAS AND RICHARD SNIETZKO

PORT ORFORD CEDAR (*Chamaecyparis lawsoniana*) is a long-lived conifer native to northwestern California and southwestern Oregon. It spans an elevational range from sea level to 5,000 feet or more.

In forestry, the tree has both economic and ecological value (Zobel et al. 1984). The species has also been very popular horticulturally in the U.S., as well as internationally, where it is often referred to as Lawson's cypress.

The inadvertent introduction of a non-native pathogen, *Phytophthora lateralis*, was first documented in 1923 in a nursery in Seattle, Washington. It is the causative agent of the deadly Port Orford cedar root disease.

This pathogen was first found in the tree's native range in 1952. It now has been documented in several countries in Europe where the tree has been planted. The resulting disease is deadly to both young seedlings and old growth trees. Its presence has had huge negative impacts on the tree's use in horticultural plantings (Justice 2002), has harmed forest ecosystems, and has hampered the tree's use in reforestation (Zobel et al. 1984, Betlejewski et al. 2011).

A new hope

Fortunately, when researchers tested Port Orford cedar trees for cedar root disease resistance, they discovered and documented that at least some of them do possess that trait.



Figure 1: This is a sample of seedlings derived from the resistant parent 117490. Such seedlings exhibit distinct differences in foliage color and growth form. Most (75%) will grow to standard size with green foliage, but about 25% will be dwarf with blue foliage, due to a recessive gene. The blue foliage is less apparent in the greenhouse. PHOTOS BY TYLER HOSKINS

The USDA Forest Service (USFS) and the federal Bureau of Land Management (BLM) initiated a large-scale resistance breeding effort in 1997, aided by pathology support at Oregon State University (Sniezko et al. 2012), which continues today. The program is based at the USFS's Dorena Genetic Resource Center (DGRC) near Cottage Grove, Oregon.

Disease resistance testing has been done on thousands of parent trees and their progeny (family). Researchers found both major gene resistance (MGR) and quantitative disease resistance (Sniezko et al. 2020). In seedling testing, the progeny of the most susceptible parent trees have no survival and experience fast mortality. In contrast, depending on the type of resistance, survival of in resistant seedling families can vary from low to 100%.

Rooted cuttings of trees with MGR show little or no mortality in inoculation trials. To date, no virulence to resistance has been documented. Initial field trials are encouraging, but they will need to continue to be followed to track durability of resistance. ➤

Restoring a conifer classic

Top: Foliage color is less apparent in the greenhouse (below). PHOTO BY TYLER HOSKINS

Bottom: A mature Port Orford cedar on an Oregon golf course. The tree is in decline due to *Phytophthora lateralis*. PHOTO BY RYAN CONTRERAS

Containerized seed orchards have been established at Dorena, incorporating both types of resistance to produce open-pollinated seedlots for reforestation and restoration, with potentially 30–50% of progeny expected to be resistant. The goal of the orchards is to also provide high levels of genetic diversity for the 13 breeding zones that cover the range of environments in which the tree naturally occurs. Resistant seed is currently being used by several organizations and individuals.

Breeding to combine the resistance types and to increase the percentage of resistant seedlings from orchard seedlots is underway. For horticultural purposes, it should be possible to produce cultivars that have the highest level of resistance. Genetic diversity could be added to urban forest plantings by increasing the number of cultivars available.

Due to concerted efforts and support of the groups involved, the effort to develop populations of Port Orford cedar resistant to the root disease is moving quickly. It helps that the tree is biologically conducive to this, allowing researchers to test



for resistance relatively quickly, generate rooted cuttings, produce seed from self-pollination, and induce pollen and seed cone production on very young trees.

Due to the root disease, the future of the tree initially looked bleak. In 2000, the International Union of Conservation of Nature (IUCN Red List), had listed the species as “vulnerable.” However, due to management practices including the resistance program, the IUCN downgraded its status to “near threatened” in 2013. The organization did so with the expectation that it will be listed as a species of “least concern” within 10 years if current conservation actions are successful and maintained, including the planting of resistant seedlings (Farjon 2013).

Horticultural use

While the USFS has a mission to ensure the long-term survival of this majestic native in the wild, gardeners around the world have come to love the myriad forms that have been selected and used in cultivation. To make the transition to horticultural use, collaboration between the USFS breeding program and Oregon State University was initiated to investigate two aspects of the project.

First, the USFS researchers noted that when seedlings were grown from self-pollinated progeny of the high resistant parent ‘117490’, that approximately 25% of them were dwarf and had distinctly blue foliage compared to others in the same family that were the standard green form (Figure 1). Seedlings were grown in Corvallis, and we observed that one quarter of the progeny exhibited the unique phenotype, suggesting the traits are linked and both recessive.

Research is ongoing to select “winners” from that group, including confirming that the selections exhibit resistance, propagate well from stem cuttings, and perform well in container production as well as landscape trials. The range of cultivars we currently are working toward have a relatively narrow phenotype — essentially a dwarf blue selection. However, future research will include controlled crosses to hybridize resistant clones with the vast array of cultivars available in the trade.

The second area we are working on is to identify superior clones for cutting propagation to be used as a clonal rootstock to provide a reliable source of resistance for growers. We began by growing out 133 seedlings that were derived from resistant parent ‘117490’. All seedlings were grown in containers using standard production practices.

Five cuttings of each individual were collected on December 16, 2019 and treated with 8,000 ppm IBA talc and stuck in a 1 peat: 1 perlite mixture and placed under intermittent mist with bottom heat.

Overall, rooting was high among the entire group, but we observed enough variation for selection (Figure 2). We used a threshold of 80% rooting with an average of 10 roots per cutting as our selection criteria for clones to move to the next phase of the trial. Thirty-five clones met this metric, of which 33 were field planted for long-term evaluation and an expanded cutting trial. Plants were tip-pruned during fall 2020 to start encouraging branching and then height was reduced by one-third during spring 2021 to begin establishing plants as hedges.

The idea to provide a clonal rootstock





Cutting propagation study of individual genotypes of Port Orford cedar to identify clones that root at a high percentage and produce high quality rooted cuttings. On the right are cuttings from a clone that rooted at 100% (5 of 5) and was considered well-rooted. Thirty-five clones that had 80% rooting or greater and had an average of 10 roots per cutting were potted during February 2020. These selections were moved on to the field trial in which clones will be sheared for large scale cutting trials. PHOTOS BY RYAN CONTRERAS

with resistance is not new but has been a regular request from a few specialty growers but there may be greater demand once word spreads. There are countless cultivars that have been developed during the past 100 years or so and re-creating

with resistance to be grown on their own roots but provide a clonal rootstock that will allow producers and enthusiasts to maintain the incredible diversity of forms and types that have graced our gardens and landscapes over the decades.

the entire suite of phenotypes with resistance to *Phytophthora lateralis* is not reasonable. As such, we hope to make some contribution to breed for a collection of ornamental and landscape phenotypes

Next steps

The years of breeding have delivered what appears to be reliable resistance in Port Orford cedar that could be a boon to the nursery industry. The next stage of our collaborative research is evaluating resistance of advanced selections to ensure that we are maintaining expected levels.

Following disease testing, decisions will be made on clones to advance to grower trials — both as own-rooted cultivars as well as to be evaluated as clonal rootstocks.

Finally, we hope to begin making crosses to introgress disease resistance into a variety of ornamental forms to expand the palette of disease resistant cultivars that can be propagated and grown from cuttings. We hope that future generations will get to enjoy this species — both as a majestic conifer in its native range, and as a much-beloved landscape plant around the world. ☺ ➤



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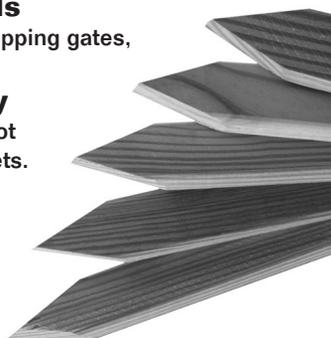
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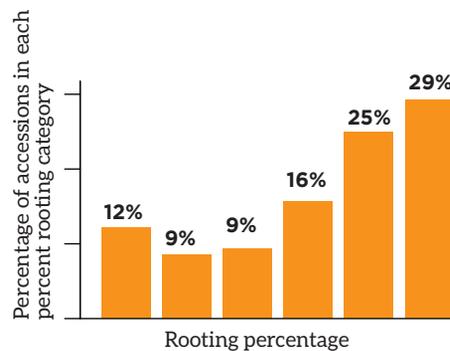


Figure 2: Overall rooting percentage was high among clones but variation included 12% that exhibited 0% rooting and 30% of accessions that rooted <40%. GRAPHIC COURTESY OF OREGON STATE UNIVERSITY

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While I am a boy of summer, the fall has always been my favorite time of year. My two daughters are away at college, the hard work in the yard is paying off, and football Saturdays are in full swing at my alma mater.

But while I am a “glass half full” person, the past year has been chock full of significant challenges, not only to the nursery and greenhouse industry, but all of Oregon agriculture.

It is under this enormous duress that we see what organizations are made of. I am pleased that we remain as one.

Multiple generational disasters

The Oregon agricultural community has endured multiple once-in-a-generation challenges. Individually, they are tough, but cumulatively, they are threatening.

We are asking the state for targeted assistance to help Oregon’s agricultural community weather this unprecedented time, and to help our farm and ranch families build the resiliency to adapt to the more frequent disasters that are expected in the coming years.

As the agricultural community was working hard to respond to the COVID-19 pandemic by protecting their workforce, navigating market disruptions, and adjusting to a post-COVID economy, producers were hit by a series of natural disasters. These included wildfires, an ice storm, and drought, followed by last summer’s heat dome.

At this point, there is not a producer in Oregon who has not been negatively impacted by natural disasters in the past year. These disasters are also affecting our workforce, causing workers to miss days. Farmers are experiencing delays in production or harvesting their crops.

Several agricultural industries have banded together in a large coalition to educate state decision-makers on the

cumulative impacts of various disasters over the past year.

The OAN, Oregon Farm Bureau, Oregon Dairy Farmers Association, Oregon Cattlemen’s Association, Oregon Wine Growers Association and a dozen others wrote a letter making the case for state assistance to producers throughout the state. The state has \$150 million in disaster relief funding and Oregon ag is asking for a big chunk of that to go directly to operators.

Gaps in federal programs

Unfortunately, we continue to see federal safety net programs for farmers fail to assist the diversity of commodities we raise in Oregon and the types of losses our producers have experienced over the past year.

Oregon is a specialty crop state. We grow more than 225 different crops, making our producers largely more diversified than much of the nation’s agriculture. However, it also means that many of the federal programs, which are designed primarily around Midwestern and Southern states’ needs, leave many Oregon producers ineligible for federal disaster relief.

The nursery industry discovered these holes firsthand in 2008, when snow and ice storms crushed the Willamette Valley.

Despite obtaining state and federal natural disaster declarations in quick order, gaps in the disaster title revealed a lack of understanding of specialty crops in two different ways. First, there is little flexibility in federal rules for multiple-year crops, and second, not all damage is immediate, like you see with a wheat crop failure. All the government could assist with was to pay for the mangled hoop houses throughout the industry.

In many cases, the federal programs that exist do not cover the losses experienced by producers. For example, resulting from the February 2021 ice storm and June 2021 heat dome, many tree and vine producers sought assistance from the USDA Tree Assistance Program (TAP). However, to receive TAP payments, a stand of eligible trees, bushes, or vines must have suffered more than a 15% mortality loss (over normal mortality) due to a declared natural disaster.

In both the ice storm and heat dome,



Jeff Stone
OAN EXECUTIVE DIRECTOR

the majority of trees, bushes, or vines didn’t suffer mortality, but their fruit or nuts didn’t survive. In the case of nursery stock, they too didn’t suffer complete mortality, but sunburn, cracked branches, and other impacts left plants with no value. They didn’t die, but from the grower’s perspective, they might as well have.

There may be programs that cover losses in other cases, but they require funding, and in some cases, adjustments to coverage. For farmers who suffer direct wildfire and drought losses, the Wildfire Hurricane Indemnity Program (WHIP+) assists eligible producers for crops, trees, bushes, and vines. The Quality Loss Adjustment Enhancement provides further support for producers suffering losses in crop quality.

However, these programs need to be authorized and have funds appropriated each disaster year, which has proven difficult even in years with the unprecedented weather events we have experienced, leaving growers with no relief in sight.

We are one

I am a big fan of the aggie family meeting amongst the associations. The leaders of associations, regardless of size, are working together. We share a common bond to help our members to prosper and have a game-plan during times of adversity.

Regardless of the type and form of the effort, take note that your volunteer leaders and association staff are working extremely hard at the state and federal level to provide resources in response to the preponderance of disasters the Pacific Northwest faced these past two years. We will not rest until the work is done. ©

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