





A Newsletter for Friends of North Willamette Research and Extension Center

### SPRING 2019

# Tractor Training must be spring!

A tradition at the North Willamette Research and Extension Center each spring is the beginning of the annual farm equipment and tractor training season. This past Spring Break was no exception. Twenty-six youth, ages 14 to 17, received classroom and hands-on equipment training focusing on operational skills, safety, driving skills, attaching threepoint hitch equipment, and emergency preparedness. Youth participating were from around the Valley—Canby, Donald, Woodburn, St. Paul, Salem, Turner, Sweet Home, Corvallis, Silverton, Molalla, Beavercreek, Oregon City—just to name a few of the locations.

"The annual three-day Spring Break class gives us a chance to work with the youth during a time when they are off school and before the spring and summer field season begins," said Derek Wells, NWREC's Building and Trades Maintenance staff. Wells has



Derek Wells teaching the youth class about tractor equipment (above). Volunteer Mike Rusher watches a student hooking up a 3-point (right).

been teaching the farm equipment safety sessions since 2012. "It's really a lot of fun. I enjoy working with the kids. We get some great young people from all around the Valley. The training focuses on safety

# **Farm Foundation Event Comes to NWREC**

The Farm Foundation is an agricultural policy institute whose mission is to provide objective information and cultivate conversation and collaboration to address society's needs for food, fiber, feed and energy. The non-profit organization, formed in 1933 and based in Illinois, seeks to connect leaders in farming, business, academia, organizations and government. The Farm Foundation's goal is to address issues that lead to informed policy decisions.

Just in the past year, the Farm Foundation has begun sponsoring agricultural tours for congressional staffers in Washington D.C. to help them become more informed



and making sure these folks know what they are doing and why and how to keep themselves safe. Safety is #1!"

Over the years, Wells estimates that he has trained and certified about 300 youth. Students who complete the three-day, 22 hour training and pass the classroom test plus a driving/operation skills test, are credentialed through a national certification program. Youth with the certification can be employed on farms.

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### Tractor Training continued from page 1 .....

Wells will teach a second youth tractor training and certification class when



Jaden Stewart (right)—high school student working on our Farm Crew the past two summers teaching one of this year's trainees how to hook up the hydraulics during this year's Spring Break tractor safety and certification course.

# Farm Foundation Event continued from page 1

about critical issues facing farmers. Since it began in February 2018, nearly 30 congressional staff members have participated in farm tours to Central Florida, Central Indianaand, this past February, to Western Oregon. One of the recent tour stops included the North Willamette Research and Extension Center, a tour of the farm, and discussions over dinner.

The farm tour program is an opportunity for congressional staff members to experience food and agricultural enterprises, first hand, and to talk to the owners and operators of those businesses about the issues that they address on a daily basis. Participants see a variety of agricultural production, processing and marketing systems and are provided with one-onone interactions with farmers, researchers, industry leaders, as well as, agency and local government leaders, to discuss timely issues and challenges facing food and agriculture in that region. Discussions range from water quality, sustainability and technology, to marketing and global trade.

school is out in June. Those dates are June 19-21. Registration is limited to 20 to ensure adequate supervision and handson equipment time for the students. See https://extension.oregonstate.edu/nwrec for more information and to register. The registration fee for the course is \$95. Needs-based scholarships are available, too.

Adults interested in a tractor training class can sign up for one of two 3<sup>1</sup>/<sub>2</sub> hour sessions at this year's Clackamas Small Farms School on Thursday, July 18. Wells will teach a morning class and an afternoon class at NWREC as a part of the program that day. Register through the Metro Extension Small Farms program. Registration opens on May 22. Go to the OSU Small Farms Extension website at https://extension.oregonstate.edu/smallfarms to register.

Additional farm equipment classes are taught, too, based on interest. Examples include Advanced Adult training, Women's ONLY adult classes, and ATV classes. Contact Wells at derek.wells@oregonstate.edu for more information.



Derek Wells, lead instructor for the tractor and farm equipment safety courses at NWREC, explaining the finer points of successfully backing a trailer. Students spend much of their training time on the equipment and must demonstrate proficiency driving and operational skills to become safety certified.

# **Calendar of Events**

**Strawberry Field Day**, June 12 (1:00-5:00pm); focuses on commercial cultivars and production system research for industry audience. Contact: Bernadine Strik.

**Youth Tractor Safety Training and Certification Course,** June 19-21 (8:30am-4:30pm each day). Three day course includes classroom and equipment instruction and driving. Class size limited. See NWREC website for registration information. Cost: \$95.

**Blueberry Field Day,** July 17 (1:00-5:30pm); focuses on commercial cultivars and production systems research for industry audience. Contact: Bernadine Strik.

**Small Farm School,** July 18, 2019 (registration opens on May 22); Contact: Heidi Noordijk.

**NWREC Community Open House,** July 31 (4:00-7:00pm); program exhibits and demonstrations plus farm tours, tractor driving, and fresh berry tasting and vegetables for sale. Contact: Mike Bondi.

**Caneberry Field Day,** August 7 (1:00-5:00 pm); focusing on late blackberry and primocane-fruiting raspberry cultivars and production systems research for an industry audience. Contact: Bernadine Strik.

Summer Vegetable Variety Field Day, September 12. Contact: Heidi Noordijk.

NWREC Harvest Dinner, September, TBD. Contact: Mike Bondi.

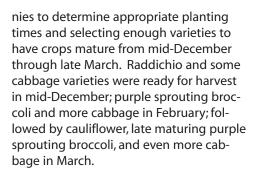
Please contact the NWREC office at 503-678-1264 for more information or visit the website at http://oregonstate.edu/dept/NWREC

# **Developing Oregon's Winter Vegetable Market—variety trials**

## By Heidi Noordijk, Metro Small Farms Outreach Coordinator

Cold and windy weather provided an appropriate atmosphere for NWREC's Winter Vegetable Variety Field Day on February 26. Farmers, breeders, seed companies, researchers, and Extension Agents braved the weather to walk through the NWREC Learning Farm to evaluate varieties and share knowledge on winter vegetable production. Nick Andrews, Lane Selman, and Heidi Noordijk of the Metroarea Small Farms Program hosted the field day to highlight the vegetables they grew for a Western SARE-funded project for summer and winter vegetable and cover crop cultivar performance in organic fresh vegetable cropping systems in Oregon. Radicchio, cabbage, cauliflower, and purple sprouting broccoli were planted in August 2018, including a total of forty-six varieties, made up these trials. The goal of the project is to help farmers select cultivars for summer and winter vegetables and cover crops for irrigated organic fresh vegetable cropping systems. Cover crop variety trials of peas, vetch, fava beans, and clover are also being evaluated for winter hardiness and suitability in the Willamette Valley. Summer trials will be planted beginning in May.

The demand for direct market local vegetables is increasing. A winter vegetable advisory group selected the four crops to include in this year's trials and made variety recommendations. Having vegetables mature throughout the winter will help meet market demands. OSU Extension worked with growers and seed compa-



Winter vegetable variety trial work will continue with an Oregon Department of Agriculture Specialty Crop Block Grant on 'Enhancing Oregon's Winter Vegetable Market'. This project will showcase: winter squash, garlic, celeriac, Brussels sprouts, cabbage, cauliflower, chicory, and purple sprouting broccoli. Keep an eye out for field days and marketing promotions through 2022.



Winter vegetable variety trials at NWREC were evaluated for quality and winter hardiness. January and February included 15 days with temperatures below 30° F, several days after the crops thawed in the field winter damage evaluations were made.





Radicchio heads hit with late December frost were evaluated for cold injury in early January. There was damage to the outer radicchio leaves, peeling back a few layers led to a marketable head.



John Navazio, plant breeder with Johnny's Selected Seeds, and Lane Selman discuss preferred harvest methods and desired traits for purple sprouting broccoli. Navazio recommends removing the main head to encourage side shoot production and increased stem length. Purple sprouting broccoli with stems at least 6 inches long could be bunched for easier marketing and sales at stores and the farmers market.



Purple sprouting broccoli harvest late-February.



Selecting the proper field planting date is important. You want the plants to be mature enough to survive cold temperatures, but not too mature where the harvestable crop will be damaged. Cauliflower selected for overwintering in the Willamette Valley has many leaves protecting the young head and as day length and temperatures increase the head begins to grow quickly. The wrapper leaves still protect the head from temperatures and pests. Timely harvest is important to cauliflower quality, as soon as the head starts to show, harvest immediately.

# Winter and Spring Brings New Positions and New Faces to NWREC

This past several months has been a hectic time for personnel changes and hirings at the North Willamette Research and Extension Center. At this writing, we currently have nine personnel actions underway and three more coming. Here's a summary of the new positions and people at NWREC.

## Derek Wells—Building and Trades Maintenance; Farm Staff: Derek officially

started his new position in January—formerly held by longtime employee Geoff Lewis. Lewis retired the end of May and Derek had assumed the role last summer. Derek is now respon-



sible for all facilities at NWREC plus all safety requirements at the Center—a huge job at NWREC with over 15 buildings and structures and growing safety certifications, testings, and university requirements. Derek had been a BioScience Technician for the past ten years working mostly on general farm support and leading our farm equipment safety training education programs for youth and adults. "Derek's experience with our programs, faculty and staff, and our facilities over these years makes him a great person to lead this important position into the future," said NWREC Farm and Facilities Manager, Marc Anderson. "As our programs and staffing grows, we are needing more and more attention to facilities, upgrades and operations." Derek and his wife and three children live in the farm house at NWREC—adjacent to the main parking lot—and provides security and after-hours and emergency oversight, too.

## Heidi Noordijk—Outreach Coordinator; Metro Small Farms Program: Heidi

joined the NWREC staff in 2012 as an Education Program Assistant in the Metro Small Farms program. In this new professional faculty position, Heidi will assume responsibility



for managing the program in conjunction with Nick Andrews, Metro Small Farms Extension Agent. Nick's position has changed over the past two years as he has taken on leadership for developing an Organic Extension program for OSU and, thus, is only able to devote about one-half of his time to the Metro Small Farms program. Heidi has been taking more and more leadership responsibility for the Metro program these past months and the day-to-day activities at NWREC.

# **IR-4 Program Leader Update**

The applications closed on a national search for the next IR-4, Pesticide Registration Research, Program Leader at NWREC, on January 23. A pool of 19 candidates was reviewed by a seven-person Search Committee with university faculty, industry and agency representatives, and community stakeholders. Seven candidates were interviewed on the telephone in late February and three invited to Oregon for the final in-person two-day interviews. Those interviews were held April 2, 3 and 4 at NWREC with the following days for each candidate on campus in Corvallis. The finalist candidates came from the University of California, University of Arizona, and Michigan State University. We are evaluating the candidates, and all of the feedback from university and the community, prior to making an offer and negotiating the hire. We hope to have the new IR-4 Program Leader in place by early summer.

A special thanks goes to an outstanding Search Committee for managing this process and the leadership of Search Chair, Cindy Ocamb, Extension Plant Pathologist at OSU. Cindy's committee included: Mike Iverson, Aurora Farms; Michael Horak, University of California-Davis, IR-4 Western Region Field Manager; Rose Kachadoorian, Oregon Department of Agriculture, Pest Division; Steve Salisbury, Oregon Seed Council-Research Coordinator; Kristie Buckland, NWREC Vegetable and Specialty Seed Crop Extension Specialist; and Ed Peachey, OSU Vegetable and Weed Extension Specialist. Included in Heidi's new role will be conducting needs assessments with area small farmers; designing, delivering and evaluating educational programs; providing leadership for the Clackamas Small Farms School, vegetable variety field trials at NWREC, and working with local partnering organizations and agencies. NWREC Director, Mike Bondi, said, "Heidi has made excellent contributions to the Metro Small Farms Program since she joined our staff seven years ago. She is a delight to work with—always with a positive and cheerful attitude, is a wonderful team player at the Center, an incredibly hard worker. We are pleased to have Heidi join our faculty group."

### Ann Rasmussen—Faculty Research Assistant; Vegetable and Specialty Seed Crops Program: Ann began her

new position supporting Kristie Buckland's program in early February. She comes to NWREC from two years as a Faculty Research Assistant in the Plant Pathology lab at



OSU's Southern Oregon Research and Extension Center in Central Point. Ann earned a Ph.D. in Biology from University of Mississippi for her research on forest microbial communities. Ann's current work includes research trial support, pesticide applications, background research for grant and funding applications, data collection and analysis, and assistance in writing publications. Projects for the coming season include a planting date and variety trial with guinoa (including 17 varieties), efficacy trials on radish and carrot in the IR-4 program, drone surveying for blackleg in brassicas, and a study on how pesticide residues affect bees. Ann grew up in Tennessee, but previously lived in the Portland area for over ten years and is happy to be back in the Willamette Valley. Ann says, "I'm enjoying the opportunity to study a variety of crops and continue using some of my plant pathology skills. I'm happy to be working with Kristie and am excited about her ideas for future research on cropping systems, soil health, and vegetable nutrient content."

## Brian Hill—Faculty Research Assistant; Nursery Production Research Program:

Brian Hill is just completing his Master's degree (still has his defense later this spring) at OSU in the Department of Botany and Plant Pathology, but began work at NWREC on



March 18. Brian is working under the supervision of Lloyd Nackley, NWREC's Nursery and Greenhous Production Research and Extension faculty. Brian' primary focus will be supporting the ongoing Intelligent Sprayer project, but other activities in Lloyd's program will be supported, too. Brian is originally from southern California-a city kid from Los Angeles area—and, is coming into agriculture, research and education as a second career. He is passionate about the science of plant and animal systems, learning and taking this knowledge and communicating clearly with others. Brian and his wife relocated to Oregon about 10 years ago, and since then, he has obtained a Bachelor's degree in Crop and Soil Science, and soon to be, Master's degree, both from Oregon State University. Brian is proud to share, he bleeds orange and black!

# Faculty Research Assistant; Nursery Pathology and Bilingual Education

Program: An offer has been accepted for the position of Faculty Research Assistant (FRA) supporting Luisa Santamaria's education and research program. Public announcement is pending background and DMV checks. This new hire is completing Master's degree coursework and thesis at the University of Idaho in June and expects to arrive at NWREC on June 24. The new FRA will support Luisa's on-going research and education program by overseeing the pathology lab activities plus greenhouse and field projects. Luisa has not had support staff in her program since Gilberto Uribe resigned his Education Program Assistant position to work for the Oregon Department of Agriculture in their Pesticide Division. "I am really looking forward to the help in my program," Luisa said. "We have many projects that will keep us busy, including a new training and certification program for nursery workers."

BioScience Technician—Farm Irrigation and Vegetable and Specialty Seed Crops Program; Farm Staff: The applications closed for a new farm staff position designed to support the irrigation needs of the faculty, staff and programs at NWREC (half time) and farm support for Kristie Buckland's Vegetable and Specialty Seed Crops Program. Phone interviews were complete in mid-March and an offer has been extended. "With some 60 to 70 or more field trials each year at NWREC, now, we need a staff person to focus their time and energy on irrigation needsespecially in the summer," said NWREC Farm Manager Marc Anderson. "Our former facilities person had this responsibility, but the growing season was just getting way to hectic." The other half of the position will be devoted to supporting the Vegetable and Specialty Seed Crops program and all of the farm field work from plot installation to on-going maintenance and equipment operation. We hope this position will be filled by April 1.

BioScience Technician—General Farm Management; Farm Staff: A full-time general farm management position was advertised this winter, too. This would be the position Derek Wells vacated when he became our new Building and Trades Maintenance staff person. The search for the farm management position was considered a failed search in mid-March due to lack of gualified candidates. The posting has been revised and is open for applications until April 15. See the posting on the OSU Jobs site at www.oregonstatejobs.edu. With this entry level position, we are looking for someone with good farm equipment operating skills and experience including farm equipment maintenance and upkeep, basic construction skills, and attention to detail. Please share this job advertisement with anyone you know who may be interested.

### **BioScience Technician, Orchard Crops**

Program: An offer has been accepted for the position of BioScience Technician supporting Nik Wiman's education and research program. Public announcement is pending background and DMV checks. The BioScience Tech position will provide full time field and farm operation support in the Orchard Crops program and follows the departure of Faculty Research Assistant, Aaron Heinrich, who resigned his position in November to take a research position with Wilbur Ellis Company. "I am excited to get re-staffed in our program," said Nik. "We have a big backlog of field work that needs attention and the changes of season means things are moving fast, now.

Having the help to support the farm work, maintaining field trails, equipment operations, and overall maintenance in our growing number of project—will be great. Can't wait to get started!" Nik hopes to have his new technician on staff any day.

# Legislative Push Underway by Stakeholders—we thank you!

It's also that time of year and during the biennium when the State of Oregon prepares its next two-year budget. As you may know, Senator Arnie Roblan sponsored a bill, Senate Bill 257, that provides a \$30 million increase to the Public Statewide Services program that funds the OSU's Extension Service, Agricultural **Experiment Station, and Forest** Research Laboratory. Approximately one-half of the proposed increase will provide a continued service level—i.e., cost-of-living increases for employee salaries and benefits plus operational expenses for their current programs. The other one-half of the proposed increase would be for new education and research programming including faculty positions and special initiatives.

Community stakeholder supporters from around the state have been working tirelessly to share their voices during the budget process this winter at hearings in Salem at the Legislature and at field hearings around the state during March and early April. Stakeholder representatives supporting our Metro Small Farms, Forestry and Natural Resources, Community and Urban Horticulture, and Nursery and Greenhouse, and 4-H have all been involved locally.

### We thank you for the support!

Final budgetary decisions will be made by the Legislature later this spring. If you'd like your voice heard, reach out NOW to your Oregon Representative and/or Senator in your district. They will be happy to hear from you.

# **Berry Breeding Program Continues to Release New Cultivars**

Patrick Jones, Faculty Research Assistant— NWREC; Bernadine Strik; Berry Research Leader—NWREC; and Chad Finn, Berry Breeder—USDA Agricultural Research Service

The berry crop breeding program at the North Willamette Research and Extension Center is a cooperative effort between the U.S.D.A.'s Agricultural Research Service (USDA ARS)and Oregon State University. This collaboration has been an ongoing effort since 1911 and has resulted in the development of numerous wellknown berry varieties with one of the most famous being the Marionberry.

Today, Dr. Chad Finn is the berry breeder with the USDA ARS in Corvallis. Dr. Bernadine Strik, is NWREC's Berry Research Leader. Together, they are developing new cultivars (i.e, **culti**vated **var**ieties) every year in an effort to produce excellent, high-quality fruit that can be harvested by machine or hand and suitable for the fresh market and the processed fruit industry. Finn produces the crosses between male and female parents in Corvallis using traditional line breeding techniques. New crosses are



grown into young plants that are planted at NWREC by Strik's team where they can be evaluated under conventional field growing conditions. Field evaluations are conducted over a several year period comparing the new crosses to current industry standard varieties searching for

Berry	Cultivar Name	Release Year
Blackberry	Columbia Star	2013
Strawberry	Charm	2013
Strawberry	Sweet Sunrise	2013
Raspberry	Cascade Gold (w/WSU)	2013
Blackberry	Black Magic (w/Univ. of Arkansas)	2014
Raspberry	Cascade Harvest (w/WSU)	2014
Blackberry	Columbia Giant	2015
Blueberry	Mini Blues	2015
Strawberry	Marys Peak	2016
Raspberry	Kokanee	2016
Blackberry	Columbia Sunrise	2017
Blackberry	Hall's Beauty	2017
Blackberry	Galaxy	2017
Blackberry	Eclipse	2017
Blueberry	Echo	2017
Blackberry	Twilight	2018
Blueberry	Norman (w/Univ. of Arkansas)	2018
Raspberry	WSU 2166 (w/WSU) 2018	

something better than available in the industry today.

The importance of this breeding and field evaluation work—and the cooperation between the USDA ARS and OSU—is evident by the status of Oregon's berry industry. As of August 2018, the Oregon Department of Agriculture reported that Oregon is the #1 producer of blackberries in the Unites States, followed closely by black raspberries and blueberries (#2 rank) red raspberries (#3) and strawberries (#4). Blueberries are the largest segment of Oregon's berry industry with a farm gate value of nearly \$150,000,000 this past year. Estimates of the annual financial impact of the berry breeding program based on plant and fruit sales of all the USDA-ARS/OSU developed cultivars, including those jointly developed with other programs (i.e. Washington State University), over the past 5 years, is \$69 million/year.

Since 2013, 18 new berry cultivars have been released from the USDA ARS/OSU program, with four of those being released in cooperation with the University of Arkansas or Washington State University. Most of these cultivars spend 10+ years under development, from the original cross between the two parents to naming and release, going through yield trials and field evaluations at NWREC, before being more widely tested at local farms. The new cultivar is then



"cleaned up" to ensure it is as genetically uniform and free of known diseases before being distributed to nurseries for wholesale and retail sales.

Several recent standouts from the program include:

**Columbia Star:** Trailing, thornless blackberry with a growth habit mimicking Oregon's iconic 'Marion' (the most famous blackberry cultivar developed 70 years ago through the USDA-ARS/OSU Cooperative Breeding program); however, this berry has been repeatedly ranked as higher quality and with higher Brix (a measure of sweetness) than 'Marion', as well as, producing higher yield, firmer fruit, more concentrated ripening, and with better fruit quality from the 1st to last harvest. Harvest of this cultivar begins almost a week earlier than 'Marion'. 'Black Diamond' and 'Columbia Star' are



rapidly replacing the thorny 'Marion'. If "Columbia Star' is productive enough, it is likely to become the main blackberry cultivar in Oregon!

Sweet Sunrise: June-bearing strawberry with an average berry size similar to 'Tillamook'. This cultivar produces fruit with more intense flavor than 'Tillamook' while having similar Brix. 'Sweet Sunrise' is named for its harvest season, which is consistently five to seven days ahead of other June-bearing strawberry cultivars.

**Mini Blues:** A unique, very small-fruited, highbush blueberry with yield comparable to 'Aurora' and 'Draper'. 'Mini Blues' is named for its exceptionally small fruit, weighing in at an average of 0.9 g, or onethird to one-half the size of other cultivars. This miniscule size, coupled with outstanding flavor and sweetness, makes it ideal for the processed market, fitting in well with

# Summer Students Right Around the Corner. Do You Know Someone Interested?

Each summer NWREC hires a team of seasonal employees to assist with farm work, field research, and educational support for projects and activities managed by the faculty and staff. We expect to hire about 20 students-a mix of high school and college-this coming summer.

Could this be you or someone you know?

If interested, positions are already posting. The Oregon State University Jobs website is the best place to monitor available positions for all of our hiring at NWREC. See https://hr.oregonstate.edu/employment-opportunities-osu. Click "OSU Jobs" and search "Student Employment Opportunities." To find all positions at NWREC, filter by location using "Aurora." At this writing, we are posting four student positions. Each is described. More than one student could be hired for each position. Additional positions will be posted in the coming weeks, too.

Thanks for your interest or directing us to those interested in a great learning experience in agriculture and on the farm for the summer. bake goods and other secondary products such as yogurt and ice cream.

Hall's Beauty: A new early-ripening, highquality, firm- and sweet-fruited, thornless trailing blackberry. Its name comes from its exquisite flower, averaging almost 5 cm in diameter and having three times as many flower petals as standard cultivars. With flavor comparable to that of 'Marion', 'Hall's Beauty' would make an excellent alternative as a much more attractive and manageable plant in a home garden.

# **Coming to America!**



Luisa Santamaria, NWREC Nursery Pathology and Bilingual Educator, became a U.S. Citizen this past April 4. Luisa came to the U.S. from Ecuador in the mid-1990s to further her education studying for her Master's degree at the University of Delaware. She had the opportunity to continue for her Ph.D. at Delaware. Upon completion, she did a two year Post Doc at Tennessee State University at a nursery research field center.

Luisa was offered the OSU position she now holds in 2009 with the understanding that she needed to obtain permanent residence status. When she accomplished that goal, she proudly announced that she wanted to become a U.S. citizen, as soon as possible. And, now she has applying and passing all of these tests and enjoying the official swearing in ceremony.

Congratulations, Luisa. We are all very proud of you!

## North Willamette Research and Extension Center FACULTY & STAFF

### **Administration & Support Staff**

Mike Bondi, Director Shelley Hughes, Administrative Assistant Jan Egli, Office Specialist Marc Anderson, Farm & Facilities Manager Derek Wells, Building and Trades Maintenance TBA, Irrigation/Vegetable & Specialty Seed Crop Program Trevor Wood, Farm Assistant

### **Extension & Research Faculty**

Bernadine Strik, Berry Crops Research Leader

Wei Yang, Berry Crops Extension Agent Javier Fernandez Salvador, Special

Berry Initiative Lloyd Nackley, Nursery & Greenhouse

Production & Management Research Robin Rosetta, Nursery IPM Extension

Agent Luisa Santamaria, Nursery Pathologist/ Bilingual Extension Agent

Chal Landgren, Christmas Tree Extension Specialist

Nick Andrews, Metro Small Farms Extension Agent

Kristie Buckland, Vegetable & Specialty Seed Crops Extension Specialist

Π

Joe DeFrancesco, Pesticide Registration Research, Emeritus

Nik Wiman, Orchard Crops Extension Specialist Nicole Anderson, Field Crops

Extension Agent

## **Research & Program Staff**

Amanda Vance, Berry Crops Research Pat Jones, Berry Crops Research Erica Chernov, Berry Initiative Research Heather Andrews, Orchard Crops David Lowenstein, Brown Marmorated Stink Bug Research Gina Koskela, Pesticide Registration Research Judy Kowalski, Christmas Tree Research Brian Hill, Nursery & Greenhouse Research

Heidi Noordijk, Metro Small Farms Outreach Coordinator

Brian Donovan, Field Crops Research Ann Rasmussen, Vegetable & Specialty Seed Crops Research



# Oregon State University North Willamette Research & Extension Center

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