



## Marketing & Communications

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In Q1 of 2020, CAHNRS Communications published 44 online articles that highlight accomplishments in academics, research, and Extension. CAHNRS and Extension websites received 1,128,950 total page views and garnered 590,638 new site visitors. We increased our audience size and engagement on all social media platforms, and our web team continues to provide support and training to faculty and staff.

### SOCIAL MEDIA UPDATE

<a href="#">Facebook</a>	54 Posts	4,417 Likes	69,356 Reach	3,874 Fans (+1.9%)
<a href="#">Twitter</a>	250 Tweets	291,054 Impressions	5,932 Engagements	5,169 Followers (+1.6%)

### NOTEWORTHY PROJECTS

- Honey Bee & Pollinator Research, Extension, and Education facility grand opening in Othello, WA
- Helped write op-ed to boost Soil Health Initiative in legislative funding effort
- Produced honey bee video, with over 3,000 views, combined. Video won bronze medal from Association of Natural Resource Extension Professionals.
- All-Extension presentation on health collaboration with WSU College of Medicine
- Designed or re-designed websites for WSU Tree Fruit program, Entomology dept., and SNAP-ED program

### TOP NEWS STORIES

- [New technology helps reduce salt, keep flavor](#)—By **Scott Weybright** | Published March 3, 2020 | In WSU Insider, Science Daily, Phys.org, Pullman Radio News, Newsbreak, BigThink
- [Depressed, rural moms face greater health challenges—and so do their kids](#)—By **Seth Truscott** | Published March 4, 2020 | In WSU Insider, U.S. Rural Health Network, PsychCentral, Daily Evergreen, Ag Update, Hindustan Times, India Outlook
- [Honey bee and pollinator facility officially opened](#)—By **Scott Weybright** | Published March 6, 2020 | In WSDA, WSU Insider, Capital Press, Honey Council, Pinterest, A Future with Bees, The Bee Report, Los Angeles County Beekeepers Association, Daily Fly, Columbia Basin iFiberOne

## Faculty Highlights and Awards

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- **Girish Ganjyal** (SFS) and **Scott Harper** (PP, CPCNW) graduated from the [LEAD21](#) leadership-development program on February 20<sup>th</sup>. They were among 90 peers from land-grant institutions across the U.S. who were nominated for this competitive program that aims to develop leaders who link research, academics, and extension.
- **Hang Liu** (AMDT) was selected to receive the [International Textiles and Apparel Association Rising Star Award](#) in 2020. This award recognizes junior faculty members who have demonstrated excellence in teaching, research, and service.
- **John Browse** (IBC) is the 2020 recipient of the [Sahlin Eminent Faculty Award](#). This award is the university's highest faculty honor.

- **Timothy Lawrence, Matthew Ziegler, Susan Cobey, Darrell Kilgore, and Walter Sheppard** were presented with the national 2020 TV or Video Bronze Award for their video “Selection Methods for Honey Bee Breeding” from the Association of Natural Resource Extension Professionals in recognition of outstanding educational materials.
- In his State of the State address on January 14<sup>th</sup>, **Washington Gov. Jay Inslee** recognized **Kate Evans** (Hort.) and **CAHNRS Dean André-Denis Wright** for WSU’s success in developing the new Cosmic Crisp® apple variety. Dr. Evans, interim director of TFREC in Wenatchee, oversaw the selection and release of Cosmic Crisp® following the retirement of Bruce Barritt, WSU’s previous apple breeder.
- **Rodney Croteau** (Professor Emeritus, IBC) is the 2020 recipient of the V. Lane Rawlins President’s Award for Distinguished Lifetime Service.
- **Michelle Moyer** (VE) received the 2020 American Society for Enology and Viticulture Extension Distinction Award
- **Meijun Zhu** (SFS) received the CAHNRS Faculty Excellence in Research Award
- **Naidu Rayapati** (Director of IAREC, PP) was awarded the CAHNRS Land Grant Mission Award.
- **Debra Nelson** (HD) received the R.M. Wade Award for Excellence in Teaching
- **Helen Miller** (IBC), Administrative Manager for IBC, has been selected as the Administrative Professional Staff Excellence Award Winner.
- **Tami Nordquist** (CSS), Administrative Assistant for CSS, has been awarded the CAHNRS Classified/Fiscal Staff Excellence Award.
- **Debra Hansen** (CED), Director of Stevens County Extension, won the Faculty Excellence in Extension Award
- **Elizabeth Weybright** (YF/HD) received the CAHNRS 2020 Early Career Excellence Award
- **WSU Extension Forestry Team**, comprised of **Andrew Perleberg, Kevin Zobrist, Todd Murray, Brendan Whyte,** and **Patrick Shults** received the CAHNRS Team Interdisciplinary Award
- **Helmut Kirchoff’s** (IBC) team, in collaboration with the University of California, recently published an article in The Journal of Biological Chemistry that was an Editor’s Choice pick in SCIENCE.

## *Grant Funding*

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CAHNRS Office of Research faculty received **\$4.6M<sup>†</sup>** in extramural support in the form of new/ongoing grants, contracts, agreements and services rendered. A selection of awards (with award total) is given below:

### New Grants Include:

- **Maren Friesen** (CSS/PP), “Coevolutionary community dynamics of symbiotic nitrogen fixing associations,” 5-year NSF-CAREER award, \$970K.
- **Shulin Chen** (BSE), “Develop an efficient and cost-effective novel anaerobic digestion system producing high purity of methane from diverse waste biomass,” DOE, \$2.3M
- **Lindsey du Toit** (PP), **Kirti Rajagopalan** (BSE), **Timothy Waters** (ANR), and **Gabriel Lahue** (CSS), “Stop the rot: Combating onion bacterial diseases with pathogenomic tools and enhanced management strategies,” USDA-NIFA-Specialty Crop Research Initiative, \$4M

- **Jinwen Zhang** and **Michael Wolcott** (Composite Materials and Engineering Center), “Upcycling of CFRP waste: Viable eco-friendly chemical recycling and manufacturing of novel repairable and recyclable composites,” DOE, \$1.7M
- **Mark Lange** (IBC), “Synthetic biology tools for scalable production of medicinal plant terpenes,” 5-year NIH-NCCIH award (Stanford U. Lead), \$762K.
- **Jenifer McIntyre** (SoE), “Wastewater effluent discharge—Impacts to marine organisms assessment,” King County, \$400K
- **Jenifer McIntyre** (SoE) and **John Stark** (Ent., Washington Stormwater Center), “Stormwater threats and clean water strategies to conserve and recover Puget Sound salmon and their habitats,” DOI-FWS, \$251K

### *Peer-Reviewed Publications*

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CAHNRS faculty published **160** articles in peer-reviewed journals and conference proceedings: these are cataloged in our Weekly Published Research Archive ([available here](#)). A selection of these publications, which appeared in journals that rank in at least the 90th percentile in their respective fields, as determined by Thomson Reuters InCites, is provided below with their 5-year impact factor.

- **Karen Sanguinet** (CSS) and **Andrei Smertenko** (IBC), “*Brachypodium distachyon* MAP20 functions in metaxylem pit development and contributes to drought recovery,” NEW PHYTOLOGIST – Impact Factor 8.3 – 97<sup>th</sup> percentile in Plant Sciences
- **Joe Harrison** and **Amber Adams-Progar** (AS), “Effect of enzymatically hydrolyzed yeast on health and performance of transition dairy cattle,” JOURNAL OF DAIRY SCIENCE – Impact Factor 3.2 - 94<sup>th</sup> percentile in Agriculture, Dairy, & Animal Science
- **Arron Carter** (CSS), “Identification of a major dominant gene for race-nonspecific tan spot resistance in wild emmer wheat,” THEORETICAL AND APPLIED GENETICS – Impact Factor 4.0 - 96<sup>th</sup> percentile in Horticulture
- **Linda Thomashow** (USDA, PP), **James Harsh** (CSS), and **David Weller** (USDA, PP), “Phenazine-1-carboxylic acid-producing bacteria enhance the reactivity of iron minerals in dryland and irrigated wheat rhizospheres,” ENVIRONMENTAL SCIENCE & TECHNOLOGY – Impact Factor 7.9 - 95<sup>th</sup> percentile in Environmental Sciences
- **Mei-Jun Zhu** (SFS) and **Juming Tang** (BSE), “Stability of *Listeria monocytogenes* in non-fat dry milk powder during isothermal treatment and storage,” FOOD MICROBIOLOGY – Impact Factor 4.6 – 90<sup>th</sup> percentile in Food Science & Technology
- **Jeffrey Vervoort** (SoE), “Disturbances in the Sm-Nd isotope system of the Acasta Gneiss Complex—Implications for the Nd isotope record of the early Earth,” EARTH AND PLANETARY SCIENCE LETTERS – Impact Factor 5.2 – 91<sup>st</sup> percentile in Geochemistry & Geophysics
- **Lei Zhang** (PP), “Tissue-specific study across the stem of *Taxus media* identifies a phloem-specific TmMYB3 involved in the transcriptional regulation of paclitaxel biosynthesis,” PLANT JOURNAL - Impact Factor 6.5 - 95<sup>th</sup> percentile in Plant Sciences
- **Jean-Sabin McEwen** (BSE), “Unravelling the reaction mechanism of gas-phase formic acid decomposition on highly dispersed Mo<sub>2</sub>C nanoparticles supported on graphene flakes,” APPLIED CATALYSIS B-ENVIRONMENTAL - Impact Factor 12.2 - 99<sup>th</sup> percentile in Environmental Engineering
- **Carolina Andrea Torres** (TFREC, Hort.), “Photooxidative stress activates a complex multigenic response integrating the phenylpropanoid pathway and ethylene, leading to lignin accumulation in apple (*Malus domestica* Borkh.) fruit,” HORTICULTURE RESEARCH - Impact Factor 4.4 - 93<sup>rd</sup> percentile in Horticulture

- **Jeb Owen** (Ent.), “Landscape context mediates the physiological stress response of birds to farmland diversification,” JOURNAL OF APPLIED ECOLOGY - Impact Factor 6.5 - 92<sup>nd</sup> percentile in both Ecology and Biodiversity Conservation
- **Shulin Chen** (BSE), “Mechanistic studies of milled and Kraft lignin oxidation by radical species,” GREEN CHEMISTRY - Impact Factor 9.6 - 96<sup>th</sup> percentile in Green & Sustainable Science & Technology
- **Raven Weaver** (HD), “Effects of long-term services and supports on survival of poor, highly vulnerable older adults,” GERONTOLOGIST - Impact Factor 4.6 - 93<sup>rd</sup> percentile in Gerontology
- **Philip Bates** (IBC), “Metabolically distinct pools of phosphatidylcholine are involved in trafficking of fatty acids out of and into the chloroplast for membrane production,” PLANT CELL - Impact Factor 9.8 - 98<sup>th</sup> percentile in Plant Sciences
- **Jessica Goldberger** (CSS), “Plastic scraps: biodegradable mulch films and the aesthetics of 'good farming' in US specialty crop production,” AGRICULTURE AND HUMAN VALUES – Impact Factor 3.9 – 99<sup>th</sup> percentile in History & Philosophy of Science
- **Shulin Chen** (BSE), “Comparative techno-economic analysis of algal biofuel production via hydrothermal liquefaction: One stage versus two stages,” APPLIED ENERGY – Impact Factor 8.6 - 97<sup>th</sup> percentile in Chemical Engineering
- **Hang Liu** (AMDT), “Propionylation-modified chitin with improved solubility in green ethanol/water binary solvents for sustainable film and coating applications,” JOURNAL OF CLEANER PRODUCTION - Impact Factor 7.1 - 93<sup>rd</sup> percentile in Environmental Sciences
- **Wei Wei** (Postdoctoral Researcher, PP), “Let it catch: A short-branched protein for efficiently capturing polysulfides in lithium-sulfur batteries,” ADVANCED ENERGY MATERIALS – Impact Factor 21.9 – 98<sup>th</sup> percentile in Applied Physics; Physical Chemistry; and Multidisciplinary Materials Science
- **Matthew Whiting** (IAREC, Hort.), **Qin Zhang** (CPAAS, BSE), **Manoj Karkee** (BSE), and **Longsheng Fu** (CPAAS), “Deep learning based segmentation for automated training of apple trees on trellis wires,” COMPUTERS AND ELECTRONICS IN AGRICULTURE – Impact Factor 3.5 - 92<sup>nd</sup> percentile in Multidisciplinary Agriculture
- **Markus Flury** (CSS), “Effect of sulfamethazine on surface characteristics of biochar colloids and its implications for transport in porous media,” ENVIRONMENTAL POLLUTION - Impact Factor 6.2 - 90<sup>th</sup> percentile in Environmental Sciences
- **Mei-Jun Zhu** (SFS), “Screening of non-pathogenic surrogates of *Listeria monocytogenes* applicable for chemical antimicrobial interventions of fresh apples,” FOOD CONTROL – Impact Factor 4.4 – 92<sup>nd</sup> percentile in Food Science & Technology
- **Jean-Sabin McEwen** (BSE), “Enhancing chemical interaction of polysulfide and carbon through synergetic nitrogen and phosphorus doping,” ACS SUSTAINABLE CHEMISTRY & ENGINEERING - Impact Factor 7.2 - 94<sup>th</sup> percentile in Chemical Engineering
- **John Reganold** (CSS) and **David Crowder** (Ent.), “Landscape context affects the sustainability of organic farming systems,” PNAS—Impact Factor 10.6—91<sup>st</sup> percentile in Multidisciplinary Sciences.  
\*\* This large meta-analysis was conducted and authored by graduate students in WSU’s Entomology Journal Club.
- **Qin Zhang** (CPAAS, BSE), **Lav Khot** (CPAAS, BSE), and **Gwen-Alyn Hoheisel** (ANR), “Optical sensing for early spring freeze related blueberry bud damage detection: Hyperspectral imaging for salient spectral wavelengths identification,” COMPUTERS AND ELECTRONICS IN AGRICULTURE - Impact Factor 3.5 - 92<sup>nd</sup> percentile in Multidisciplinary Agriculture

- **Hanwu Lei** (BSE), “Synthesis and characterization of sulfonated activated carbon as a catalyst for bio-jet fuel production from biomass and waste plastics,” BIORESOURCE TECHNOLOGY - Impact Factor 6.6 - 96<sup>th</sup> percentile in Agricultural Engineering
- **Jean-Sabin McEwen** (BSE), “Enhancing the partial oxidation of gasoline with Mo-doped Ni catalysts for SOFC applications: An integrated experimental and DFT study,” APPLIED CATALYSIS B-ENVIRONMENTAL – Impact Factor 12.18 - 99<sup>th</sup> percentile in Environmental Engineering

## REVIEWS/BOOKS

- **Raven Weaver** (HD), “A scoping review: Characteristics and outcomes of residents who experience involuntary relocation,” GERONTOLOGIST - Impact Factor 4.6 – 93<sup>rd</sup> percentile in Gerontology
- **Bin Yang** (BSE), “Catalytic routes for the conversion of lignocellulosic biomass to aviation fuel range hydrocarbons,” RENEWABLE & SUSTAINABLE ENERGY REVIEWS – Impact Factor 11.2 – 99<sup>th</sup> percentile in Green & Sustainable Science & Technology
- **Min Du** (AS), “Prevention of breast cancer by dietary polyphenols-role of cancer stem cells,” CRITICAL REVIEWS IN FOOD SCIENCE AND NUTRITION – Impact Factor 7.0 – 97<sup>th</sup> percentile in Food Science & Technology
- **Shaojin Wang** (BSE), “A comprehensive review on recent developments of radio frequency treatment for pasteurizing agricultural products,” CRITICAL REVIEWS IN FOOD SCIENCE AND NUTRITION – Impact Factor 7.0 – 97<sup>th</sup> percentile in Food Science & Technology
- **Shulin Chen** (BSE), “Recent development of hydrothermal liquefaction for algal biorefinery,” RENEWABLE & SUSTAINABLE ENERGY REVIEWS - Impact Factor 11.2 – 99<sup>th</sup> percentile in Green & Sustainable Science & Technology
- **Hanwu Lei** (BSE), “Fast microwave-assisted pyrolysis of wastes for biofuels production - A review,” BIORESOURCE TECHNOLOGY – Impact Factor 6.6 – 96<sup>th</sup> percentile in Agricultural Engineering
- **Shyam Sablani** (BSE), “Rapid methods of microbial detection in dairy products,” FOOD CONTROL – Impact Factor 4.4 – 92<sup>nd</sup> percentile in Food Science & Technology
- **Markus Keller** (Hort.), “The Science of Grapevines”, 3<sup>rd</sup> edition of textbook, Elsevier Academic Press

## *Research & Extension Events*

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- EXploring Emerging College Leaders (EXCEL) program was held on November 1-3, 2019. IBC collaborated with Tony Brave, the outreach coordination of the Native American Programs, to organize this event, which 39 students from Native American Communities in Washington, Oregon, and Idaho attended. IBC faculty **Andrei Smertenko, Phil Bates, John Browse, Tom Okita, John Peters, Paul Hwang** and **Florence Mus** designed and conducted the hands-on activities.
- 8th Annual Women in Agriculture Conference: Healthy Farms occurred January 25<sup>th</sup> at 32 locations in Washington, Idaho, Oregon, Montana, Alaska, and Hawaii. The conference was presented via distance technology at all locations, in addition to in-person talks by local panels of women farmers at each location. More than 600 women attended this WSU Extension-organized conference.
- Soil Health Initiative Work Sessions, Pullman, February 7<sup>th</sup> & 21<sup>st</sup>. **Maren Friesen** (CSS/PP) participated in these workshops, which brought together growers, researchers, conservationists, policy makers, and graduate students to engage in participatory co-innovation around challenges and practices in promoting soil health. ~25 people participated in each session.

- San Juan Islands Agricultural Summit, February 7<sup>th</sup> & 8<sup>th</sup>, Orcas Island, WA. County Extension Director **Brook Brouwer** coordinated this event, which attracted 230 participants, including agricultural producers, and beginning and experienced farmers alike. 74% of attendees have already made changes to their agricultural practices based on past Summits, and 73% plan on making changes based on new information gained from this Summit.

## *WSU Extension Highlights*

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### FACULTY HIGHLIGHTS

- **Achour Amiri** (TFREC, PP) delivered the presentation “Preharvest Disease Management of Postharvest Diseases” at three stakeholder meetings: January 29<sup>th</sup> in Wenatchee, February 6<sup>th</sup> in Royal City, and February 12<sup>th</sup> in Wenatchee.
- **Michelle Moyer** (VE) gave an invited presentation, “The Bright Future of Powdery Mildew Management,” at the Unified Wine and Grape Symposium in Sacramento, CA on February 6<sup>th</sup>.
- **Markus Keller** (IAREC/Hort.) delivered the invited keynote presentation, “The heat is on: consequences and mitigation of heat and drought stress,” at the 9<sup>th</sup> International Table Grape Symposium in Santiago, Chile on February 18<sup>th</sup>
- **Michelle Moyer** (VE) gave the keynote presentation at the Ohio Grape and Wine Conference in Dublin, OH on February 17<sup>th</sup>: “The Past, Present, and Future of Grape Pest Management.”
- **Michelle Moyer** (VE) delivered the keynote presentation at Business. Enology. Viticulture NY, New York's annual conference for the grape and wine industry, in Rochester, NY on February 28<sup>th</sup>: “Powdery Mildew: FRAMing the Reality of Fungicide Resistance.”
- **Michelle Moyer** (VE) gave two invited presentations at the Washington Winegrowers 2020 Convention in Kennewick on March 4<sup>th</sup>: “Rootstocks: The Viticulture Perspective” and “Replanting Right: Vineyard Longevity and Mistakes to Avoid.”

### PUBLICATIONS

- **Achour Amiri** (PP, TFREC) developed five fact sheets on major postharvest pathogens: Bull's Eye Rot (*Neofabraea* spp.) with co-author **Kutay Ozturk** (Postdoctoral Researcher, PP); Blue Mold of Pome Fruit (*Penicillium* spp.) with co-author **Wilson Acosta** (Postdoctoral Researcher, PP); Gray Mold of Pome Fruit (*Botrytis* spp.); Phacidiopycnis and Speck Rots (*Phacidiopycnis* spp.); and Mucor Rot of Pome Fruit (*Mucor* spp.)
- **Timothy Murray** (PP), “The war on wheat diseases,” WHEAT LIFE, January 2020
- **Stephen Bramwell** (ANR), “Go among the people: Travel as nontraditional professional development,” JOURNAL OF EXTENSION, December 2019
- **Donald McMoran, Kate Seymour, Shannon Bachtel, and Sylvi Thorstenson** (ANR), “Creating a suicide prevention program for farmers and farmworkers,” JOURNAL OF EXTENSION, December 2019
- **Craig Cogger** (CSS), “A home gardener's guide to soils and fertilizers,” WSU FACT SHEET EM063
- **Gary Chastagner** (PP, ANR), “A grower's guide to the most common diseases of peony in the United States,” WSU FACT SHEET FS338E
- **Tianna DuPont** and **David Granatstein** (TFREC, ANR), “Compost use for tree fruit,” WSU FACT SHEET FS337E
- **Debbie Williams** (YF), **Mark Heitstuman** (CED), and **Janet Schmidt** (YF), “Successfully navigating 4-H market livestock projects,” WSU FACT SHEET FS339E

- **Tianna DuPont, David Granatstein, and Bernardita Sallato** (TFREC, ANR), “Soil health in orchards,” [WSU FACT SHEET EM120E](#)
- **Faith Critzer** (SFS, IAREC), “Produce safety rule exemptions and exclusions for Washington produce growers,” [WSU FACT SHEET FS340E](#)
- **Suzette Galinato** (SES, IMPACT Center), “2019 cost estimates of producing fresh and processing potatoes in Washington,” [WSU FACT SHEET TB67E](#)
- **Andrew Perleberg** (ANR), “WSU Extension to accelerate forest management planning and execution in Northeast Washington. [FOREST STEWARDSHIP NOTES](#).”

GRANT FUNDING – CAHNRS Extension faculty received **\$3.9M<sup>+</sup>** in extramural support in the form of new/ongoing grants, contracts, agreements and services rendered. A selection of awards is given below:

- **Paul Kuber** (ANR), “Online education program to enhance rapid responses to disease outbreaks and/or animal related incidents pertaining to fairs, exhibitions, or facilities,” USDA-APHIS-National Animal Disease Preparedness and Response Program, \$316K
- **Todd Currier** (Energy Program), “Residential codes CY20,” Northwest Energy Efficiency Alliance, \$255K
- **Brittany Cooper, Laura Hill, and Elizabeth Weybright** (YF/HD), “Design of an evaluation plan for the Communities Prevention and Wellness Initiative,” Washington State DSHS-DBHR, \$200K
- **Andrew Perleberg** (ANR), “Colville-Little Spokane Watershed Landscape-Scale Forest Stewardship Project,” USDA-USFS, \$240K
- **Zena Edwards** (YF), “SWACH Transformation Project Agreement—2020-2021,” Washington State HCA, \$100K
- **Amanda Murphy and Christopher Page** (CED, William D. Ruckelhaus Center), “Criminal sentencing task force,” State of Washington (U. Washington Lead), \$175K
- **Laurajeane Rehmke Lewis** (CED), “Veterans in agriculture pilot program,” WA Department of Veterans Affairs, \$64K
- **Linda McLean** (YF), “4-H Challenge, family living and noxious weed bioagent programs on the Colville Reservation,” Colville Tribes, \$91K
- **David Brown** (Director of AgWeatherNet, CSS), “NOAA National Mesonet Program,” Synoptic Data Corp./NOAA, \$114K
- **Douglas Collins** (CSANR/CSS), **Anand Jayakaran** (ANR), and **Joan Qiong Wu** (BSE), “Increasing adoption and integration of reclaimed water for irrigation within Cedar Sammamish Watershed,” Washington Water Trust, \$50K
- \$2.2M in Extension support agreements were executed between WSU and counties within Washington State.

### *Extension Events, Community Outreach*

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- **Achour Amiri** (PP, TFREC) organized a full day workshop on “Pre and Postharvest Disease Management in Pome Fruit” at the Confluence Technology Center in Wenatchee on March 4<sup>th</sup>. The workshop presented the latest findings on best disease management practices to 100 participants.
- **WSU Extension Forestry** (ANR) distributed \$180,000 of Rocky Mountain Elk Foundation membership fees through 18 grants in Washington State that aim to improve elk habitat through noxious weed control, prescribed fire, forest thinning, and research that addresses elk hoof rot in western Washington and elk movement in the Stemilt Basin Partnership near Wenatchee.

- **Michelle Moyer** (VE) and **Charlotte Oliver** (Postdoctoral Researcher, VE) hosted several workshops as part of the USDA-SCRI funded “FRAME Networks” project. These included:
  - “Ohio Grape Growers Fungicide Resistance Management Workshop,” February 16<sup>th</sup> in Dublin, Ohio. **Michelle Moyer** gave presentations on “Powdery Mildew Biology and Management”, “Best Sprayer Practices”, and “Build a Spray Program... Then Defend It!” This workshop included 42 participants.
  - “Powdery Mildew Management Workshop,” held February 21<sup>st</sup> in Prosser. **Michelle Moyer** gave presentations on “Powdery Mildew Biology and Management” and “Build a Spray Program... Then Defend It!” to 25 participants.
  - “GRAPE Powdery Mildew Management Challenges: Environmental Factors to Fungicide Resistance,” held March 10<sup>th</sup> in Napa, CA. **Michelle Moyer** gave a presentation on “What Makes for a Challenging Powdery Mildew Season? Environmental and Cultural Factors” to 120 participants.
- In collaboration with the University of Idaho Extension, Washington Department of Natural Resources, Idaho Department of State Lands, Natural Resources Conservation Service, and many more organizations, WSU Extension Forestry, led by **Andy Perleberg** (ANR), hosted the “11<sup>th</sup> Annual Family Foresters Roundtable,” on January 23<sup>rd</sup> in Hayden, ID. This WA-ID educational event serves as the unique information exchange program for agency service providers, private consulting foresters, and silvicultural contractors.
- **Per McCord** (IAREC, Hort.) gave the presentation, “WSU Cherry Breeding Program: History and Future,” at the Oregon Cherry Orchard Managers monthly meeting in The Dalles, OR on March 5<sup>th</sup>.
- **Andy Perleberg** (ANR) collaborated with the University of Idaho Extension and several public and private organizations to present the “28<sup>th</sup> Annual Family Foresters Workshop,” on January 24<sup>th</sup> in Coeur d'Alene, ID. Approximately 100 people attended this program, which was designed to strengthen the skills of consulting foresters, state-employed service foresters, and other natural resource professionals who work with family forest owners, and, serve as a forum to provide updates on emerging technology and knowledge applicable to family forestry.
- **Michelle Moyer** (VE) gave a webinar presentation on April 1<sup>st</sup> at the Washington State Wine Commission WAVE Meeting. 100 attendees participated in the webinar, “Nematodes and Rootstocks: A Washington Store.”
- **Per McCord** (IAREC, Hort.) delivered a presentation, “WSU Breeding Program and Cherry Varieties,” at the Cherry Institute in Yakima, WA on January 10<sup>th</sup>.
- Sponsored by Washington State Wine (WSW) and WSU, **Naidu Rayapati** (PP, IAREC) and **Doug Walsh** (Ent.), in partnership with Melissa Hansen (WSW Research Program Director), organized WAVEx workshop on “Grape Virus Diseases and Their Management” on February 19<sup>th</sup> at IAREC. About 60 members of the wine industry (growers, vineyard managers, and crop consultants) benefited from this workshop.
- **Andy Perleberg** (ANR) presented the 13<sup>th</sup> Forest Owners’ Winter School, a hands-on and interactive educational event for families who own forestland in Washington, on February 1<sup>st</sup> in Colville, WA.

## *Student News*

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- **Vanessa Giramata** (SES), a senior Honors College student from Rwanda who is double majoring in Agricultural Economics and French, is the university’s first finalist for the nationally competitive Schwarzman Scholar award.
- **Natasha Pence** (PhD candidate, IBC) was elected as the next Co-Chair for the 2022 Bioinorganic Chemistry Gordon Research Seminar, an annual event associated with the Metals in Biology Gordon Research Conference.



- **Julianne Kellogg** (PhD student, CSS) received an Alexander A. Smick Scholarship in Rural Community Service and Development in the amount of \$5,000
- Three PhD graduates from SES received direct placements into tenure track faculty positions: **Modhurima Amin**, Assistant Professor of Applied Econometrics, Statistics and Data Science at Texas Tech University; **Syed Badruddoza**, Assistant Research Professor at Texas Tech University; **Youngran Choi**, Assistant Professor of Business Analytics at Embry–Riddle Aeronautical University
- **Margaret McCoy** (PhD candidate, Hort./VE) won 1<sup>st</sup> place in the Graduate Student Poster competition and 1<sup>st</sup> place in the Graduate Student Oral Presentation competition at the Washington Winegrowers Annual Meeting for her work on “Optimizing airblast sprayers for vineyards by adjusting air assistance”
- The WSU graduate student team of **Jugal Marfatia** (PhD student, SES & MS student, Stats) and **Namrata Ray** (PhD student, Soc. & MS student, Stats) were one of 6 finalists in the college portion of NFL’s 2020 Big Data Bowl

### *Facilities, Infrastructure, & Programmatic*

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- **Karina Gallardo, Suzette Galinato, and Timothy Nadreau** (IMPACT Center, SES) performed the research, data collection, and analysis required for the Small Business Economic Impact Statement that was included in WSDA’s proposed rule amendment to the apple maggot quarantine aimed at preventing the spread of the pest through the nursery trade. The proposal is heading to the Washington State legislature for approval.
- **WSU Extension Forestry** (ANR) established the “PNW Tribal Agroforestry Project,” which includes one webinar and two roundtable discussions. The main goals are to promote knowledge sharing and network development, while focusing the discussions around priority topics for Pacific Northwest Tribal communities related to natural resource management, food sovereignty, and economic development.
- **WSU Extension Forestry** (ANR) established the “Northwestern Blues Shared Stewardship Group,” a new forestry collaborative that facilitates forest health improvements and wildfire hazard resilience in the northwestern Blue Mountains Ecosystem. The diverse Group is comprised of tribal, public, and private partners, forest workers, and landowners, including WSU, USDA-NRCS, OSU Extension, The Nature Conservancy, American Forest Foundation, and many more.
- **Paula Dinius, Timothy Kohlhauff, and Jennifer Marquis** (ANR) launched the new “WSU Urban & Community Tree Stewardship Online Certificate Course” in February. Funding for this project was provided by the USDA Forest Service, and it is administered through the WA Department of Natural Resources Urban & Community Forestry Program.

### *Alumni & Development*

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#### DEVELOPMENT HIGHLIGHTS

- \$3.2M has been secured toward establishing a new Endowed Chair in Soil Health and Potato Cropping Systems, an increase of \$1.0M since Q3 2019
- The Grand Opening for the Honey Bee & Pollinator Research, Extension, and Education Facility in Othello, WA took place on March 6<sup>th</sup>.
- CAHNRS awarded \$886,968 in scholarships to 455 CAHNRS students for the 2020-21 academic year.