



Marketing & Communications

In Q2 of 2021, CAHNRS Communications published 55 online articles that highlighted accomplishments in academics, research, student accomplishments, and Extension. CAHNRS and Extension websites received 1,273,348 total page views and garnered 795,051 new site visitors. We increased our audience size and engagement on social media, with a total of 443,883 impressions across three platforms.

TOP NEWS STORIES

- [Petting therapy dogs enhances thinking skills of stressed college students](#) By **Scott Weybright** | Published May 12 in Smithsonian, Forbes, BBC Radio, CBS Radio, Daily Mail, Daily Guardian, KIRO-7, Reddit, Gizmodo, KXLY, Hindustan Times, Power of Positivity, Mint Lounge, New Daily, Drugs.com
- [Rachael Ray Show to feature Cougar Gold, WSU students](#) By **Seth Truscott** | Published May 18 in Tacoma News-Tribune, Daily Olympian, KXLY, Bellingham Herald, 4 News Now, KREM-TV, Big Country News, Daily Evergreen, Tri-City Herald, Pullman Radio News
- [Young adults' alcohol use increases when casually dating](#) By **Scott Weybright** | Published June 14 in Daily Mail, UPI, College Drinking

Faculty Highlights and Awards

- **Vicki McCracken**, Associate Dean and Director of WSU Extension, named Faculty Woman of Distinction for the 2021 academic year.
- **Shyam Sablani** (Biological Systems Engineering) was awarded the 2021 Frozen Food Foundation Freezing Research Award from the International Association for Food Protection.
- **Lee Kalcsits** (Horticulture, TFREC) becomes WSU's new Endowed Chair for Tree Fruit Environmental Physiology and Management, sponsored by a \$2 million endowment from the WA tree fruit industry.
- **Zhihua Jiang** (Animal Sciences) received a Fulbright U.S. Scholar Program award to map complex links between genes and traits in animals at the University of New England in Armidale, Australia.
- **Monica Babine** (Division of Governmental Studies & Services) was awarded the 2021 Charles Benton Digital Equity Champion Award from the Benton Institute for Broadband & Society for creating the Broadband Action Team model and providing input to Senator Patty Murray for the 2019 Digital Equity Act.
- 2021 CAHNRS Faculty and Staff Award Winners include **Zhiwu Zhang** (Crop & Soil Sciences)—Early Career Excellence Award; **John Peters** (Institute of Biological Chemistry)—Faculty Excellence in Research Award; **Marcia Ostrom** (School of the Environment/Extension)—Faculty Excellence in Extension Award; **Mark Gibson** (School of Economic Sciences)—M. Wade Excellence in Teaching; **Amy Salazar** (Human Development)—Land Grant Mission Award; **Rich Koenig**—Faculty Administrator of the Year Award; and **CAHNRS Communications**—Team Interdisciplinary Award.
- **CAHNRS Communications** earned 2nd place in the 2021 National Agricultural Alumni Development Association awards Print Media Division, Annual Reports/Strategic Plans Category. The Video team won four awards in the 15th Annual Hermes Creative Awards including Gold Awards for [Selection Methods for Honey Bee Breeding](#) and [Combating Bacterial Diseases of Onion: How Do We Stop the Rot?](#)
- **WSU's Cougar Gold Cheese** and the students who make it were featured on The Rachael Ray Show, an Emmy Award-winning nationally syndicated television program.

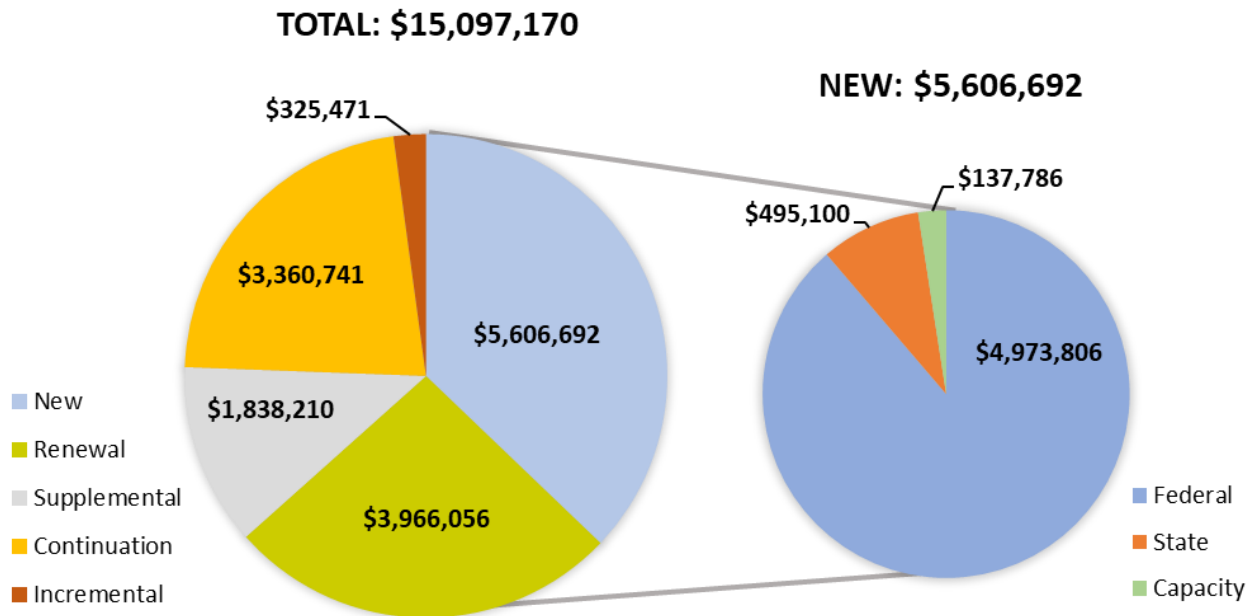
Grant Funding

CAHNRS Research and Extension faculty received **\$15.1M** in extramural support in the form of new and ongoing grants, contracts, agreements, and services rendered. A selection of new awards (with award total) is given below:

Notable Grants Include:

- **Shannon Neibergs** (Ext. ANR/SES), “Improving the Economic Viability of Agricultural Producers Through Risk Management Education,” USDA-NIFA-ARME, \$6.65M
- **Kanako Hayashi** (AS), “Complex Inflammatory Mechanisms and Therapeutic Targeting in Endometriosis,” NIH, \$2.37M
- **Brandon Hopkins** and **Rachel Olsson** (Entomology), “Pollination Enhancement for Specialty Crops and Colony Health of Honey Bees,” USDA-FAS-TASC, \$1.1M
- **Achour Amiri** (PP, TFREC) and **Stefano Musacchi** (Hort., TFREC), “Early Detection and Mitigation of Major Quarantine Postharvest Pathogens of Apple and Pear in the Pacific Northwest,” USDA-FAS-TASC, \$1.2M
- **Michael Pumphrey** (CSS) and **Kimberly Campbell** (USDA/CSS), “Biofortifying Wheat Using Selection, Introgression, and Reverse Genetics”, USDA-NIFA-AFR, \$500K
- **Dorrie Main** (Hort.), **Rebecca McGee** (USDA/CSS), **Clare Coyne** (USDA/CSS), and **Yu Ma** (Hort.), “Increasing Total Protein Content in Pea Using Large-Scale Phenotypic and Targeted Breeding with Genomic Selection,” FFAR, \$343K
- **Holly Neibergs** (AS), **Amber Adams-Progar** (AS/Ext. ANR), and **Shannon Neibergs** (Ext. ANR/SES), “Genomic Selection as a Risk Management Tool for U.S. Dairies,” USDA-NIFA-WSARE, \$350K
- **Joseph Cook** (SES), **Anand Jayakaran** (Ext. ANR), and **Laurie Larson-Pugh** (WA Stormwater Center), “Stormwater Education and Outreach: Addressing Challenges Through Behavior Change and Incentives, and Permittee Guidance for Evaluating the Effectiveness,” WA State Dept. of Ecology, \$270K

Q2 Grant Funding



Peer-Reviewed Publications

CAHNRS faculty published **246** articles in peer-reviewed journals and conference proceedings. These are cataloged in our Weekly Published Research Archive ([available here](#)). In addition, Extension faculty published **4** peer-reviewed Extension Fact Sheets, Extension Bulletins, and Technical Bulletins. A selection of notable publications is provided below with their 5-year impact factor.

- **Teng Cheng** (visiting scholar), **Juming Tang**, **Ren Yang** (Postdoc), **Yucen Xie** (PhD student), and **Shaojin Wang** (BSE), “Methods to obtain thermal inactivation data for pathogen control in low-moisture foods,” TRENDS IN FOOD SCIENCE & TECHNOLOGY– Impact Factor 11.4 – 99.6 percentile in Food Science & Technology

- **Andrei Smertenko** (IBC), “Phragmoplast navigator needs high IQ,” NATURE PLANTS– Impact Factor 14.6 – 98.9 percentile in Plant Sciences
- **Gitanjali Shrestha** (Postdoc), **Brittany Cooper**, **Laura Hill**, and **Elizabeth Weybright** (IMPACT Lab, Human Development), “Evaluating statewide efforts to prevent adolescent substance use in Washington using the RE-AIM framework,” IMPLEMENTATION SCIENCE– Impact Factor 6.0 – 98.5 percentile in Health Care Sciences & Services and 98th in Health Policy & Services
- **Abigail Cohen** (PhD student), **Javier Gutierrez Illan**, **Vera Pfeiffer** (Postdoc), **David Crowder** (Entomology), and **Carrie Wohleb** (Ext. ANR), “Linking herbivore monitoring with interpolation to map regional risk of pest species,” JOURNAL OF PEST SCIENCE– Impact Factor 4.6 – 98.5 percentile in Entomology
- **Yanting Chen** (Postdoc), **Jeanene DeAvila**, **Min Du** (AS), and **Mei-Jun Zhu** (School of Food Science), “Effects of maternal exercise during pregnancy on perinatal growth and childhood obesity outcomes: a meta-analysis and meta-regression,” SPORTS MEDICINE– Impact Factor 12.2 –98th percentile in Sport Sciences
- **Moriko Qian** (PhD student), **Hanwu Lei**, **Elmar Villota**, **Yunfeng Zhao** (PhD student), **Erguang Huo** (PhD student), **Chenxi Wang** (Postdoc), **Wendy Mateo** (PhD student), **Rongge Zou** (PhD student) (BSE), “Enhanced production of renewable aromatic hydrocarbons for jet-fuel from softwood biomass and plastic waste using hierarchical ZSM-5 modified with lignin-assisted re-assembly,” ENERGY CONVERSION AND MANAGEMENT– Impact Factor 7.4 –98th percentile in Mechanics, 98th in Thermodynamics, and 91st in Energy & Fuels
- **Chandra Jack** (PP Postdoc), **Renee Petipas** (PP Postdoc), **Tanya Cheeke** (WSU Biology), and **Maren Friesen** (PP/CSS), “Microbial Inoculants: Silver Bullet or Microbial Jurassic Park?,” TRENDS IN MICROBIOLOGY – Impact Factor 13.5 –98th percentile in Biochemistry & Molecular Biology and 96th in Microbiology
- **Alejandro Bravo Iniguez** (PhD student) and **Mei-Jun Zhu** (SFS), “Hop bioactive compounds in prevention of nutrition-related noncommunicable diseases,” CRITICAL REVIEWS IN FOOD SCIENCE AND NUTRITION – Impact Factor 7.8 –98th in Food Science & Technology and 97th in Nutrition & Dietetics

Research, Extension Events, & Community Outreach

- **WSU Plant Science Symposium**, held virtually May 20-21, attracted 221 domestic and international registrants from academia, industry, and government, including participants from Texas A&M, UC Davis, UC Riverside, UW Madison, Virginia Tech, U of I, University of Agriculture Faisalabad in Pakistan, Kyushu University in Japan, Dewey Scientific, Bayer Crop Science, Driscoll's, Pivot Bio, USDA, and more.
- **Carolina Torres** (Hort., TFREC) and **Faith Critzer** (SFS/Ext.) presented at Pace International’s annual Postharvest Academy on May 6.
- **Drew Lyon**, Interim Chair of CSS and Endowed Chair of Small Grains Extension and Research, presented a seminar on extension decision-support tools and resources on June 14 at the University of Nebraska Panhandle Research and Extension Center.
- **WSU Extension Forestry**, in partnership with WA DNR, presented Forestry Lunch Breaks: Tech Series on May 10-14. Topics covered in these live, interactive webinars were: Creating Simple Maps with Google Earth (**Patrick Shults**); Using the Web Soil Survey (P. Shults); Collecting Forest Inventory Data with PlotHound (**Brendan Whyte**); Using the DNR Forest Practices Activity Map; and Tracking Forest Health Issues with iNaturalist (**Joey Hulbert**, PP Postdoc).
- **Chad Kruger** (Director of TFREC and CSANR) and **Karen Lewis** (CPAAS/Ext. ANR) presented at meetings on June 8 & 17 as part of the 2021 Columbia River Basin Long-Term Supply and Demand Forecast, led by the Washington Water Research Center in collaboration with the WA Dept. of Ecology.
- **Bernardita Sallato** (Ext. ANR, TFREC), along with colleagues from Cornell Cooperative Extension and Michigan State University, facilitated Virtual Honeycrisp Meetups on June 3, June 17, and July 1 to bring together Honeycrisp growers, Extension specialists, and researchers from WSU, Cornell Extension, and MSU.
- Viticulture & Enology research seminars and webinars included Washington Advancements in Viticulture

and Enology (WAVEx) *Innovative Strategies for Powdery Mildew Management* on May 27 presented by **Michelle Moyer** (Hort./Ext., IAREC); WAVEx *Crop Estimation Smartphone App. Webinar* on April 8 presented by **Manoj Karkee** (CPAAS/BSE); and *FRAME—Building Better Spray Programs for Western WA* on May 20 presented by **Michelle Moyer** and **Charlotte Oliver** (Hort. Postdoc).

- In-person Field Days have returned! **Clark Neely** (CSS)—with support from Extension colleagues **Aaron Esser**, **Sarah Smith**, **Steve Van Vleet**, **Hannah Brause**, and **Mark Heitstuman**—led WSU’s Cereal Variety Testing Program field tours June 3-July 8 at 20 WA locations. Tours at Walla Walla and Eureka were held in partnership with Northwest Grain Growers and OSU. WSU-Othello Potato Field Day occurred on June 24.
- Several faculty, postdocs, and graduate students from Hort., V&E, Plant Pathology, and the School of Food Science presented research at the virtual 72nd American Society for Enology and Viticulture National Conference June 21–24, including **Michelle Moyer**, **Naidu Rayapati**, **Thomas Collins**, **James Harbertson**, **Markus Keller**, **Bhaskar Bondada**, **Charlotte Oliver**, **Sridhar Jarugula**, **Bojana Leonard**, **Scott Frost**, **Matthew Boenzli**, **Chris Beaver**, **Ben-Min Chang**, **Geraldine Diverres**, **Arunabha Mitra**, and **Bailey Hallwachs**.

Inventions & Technologies

- **Clark Neely** and **WSU Extension Cereal Variety Testing Program** has released a new mobile app for their cereal variety selection tool, which growers use to filter and sort wheat and barley varieties based on various important agronomic characteristics.
- **David Gang** and **Anna Berim** (Institute of Biological Chemistry) were granted a U.S. patent for Production of Hydroxylated and Methoxylated Flavonoids in Yeast by Expression-Specific Enzymes.
- **Amit Dhingra** and **Christopher Hendrickson** (Horticulture) were granted a European patent for Control of Ripening and Senescence in Pre-Harvest and Post-Harvest Plants and Plant Materials.
- **Aaron Carter** (Crop and Soil Sciences) was granted a Plant Variety Protection Certificate for WA8268 'Scorpio' Hard Red Winter Wheat.
- **Patrick Moore** and **Wendy Hoashi-Erhardt** (Horticulture) were granted Plant Breeder’s Rights for WSU 1507 Red Raspberry "Cascade Harvest".

Alumni & Development

- CAHNRS received an estate gift commitment of ranch property in Ellensburg, conservatively valued at \$800,000. The donor intends for the property to be used as a dynamic asset with many potential teaching, research, and extension uses across program areas.
- WSU is receiving \$2.1 million (biennium) from the State to fund the Washington Soil Health Initiative, which aims to research and disseminate new best management practices for farmers.
- **Auction of Washington Wines’** annual Wine & Music Week held May 18-23 raised nearly \$80,000 for WSU’s V&E Program and the AWW Industry Grant Program.
- CAHNRS Alumni & Development office met 95% of its annual fundraising goal in the fiscal year.

Student News

- The WSU Association for Faculty Women recognized two CAHNRS graduate students with Outstanding Graduate Student Awards. **Olabisi Adesanya** (AMDT, MS Student) was awarded the AFW Founders Award, and **Chelsea Pardini** (SES, PhD student) was awarded the Harriette B. Rigas Award.
- Three PhD students received the 2021 CAHNRS Graduate Student Leadership Award: **Abhilash Chandel** (BSE), **Yini Chen** (AMDT), and **Meghan Parsley** (SoE).
- **Alexa McDaniel** (Hort., PhD candidate) received a Foundation for Food & Agriculture Research Fellowship.
- **Hugo Barragan** received the Dean’s Choice Award at the 38th Annual WSU AMDT Fashion Show.