



Marketing & Communications

In Q3 of 2020, CAHNRS Communications published 47 online articles that highlight accomplishments in academics, research, and Extension. CAHNRS and Extension websites received 1,214,936 total page views and garnered 651,726 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.

TOP NEWS STORIES

- [Scientists predict potential spread, habitat of invasive Asian giant hornet](#)—By **Seth Truscott** | Published September 23 in USA Today, Seattle times, Daily Mail Online, KIRO7 Seattle, Oregon Public Broadcasting, Tacoma News Tribune, & more.
- [Decline in plant breeding programs could impact food security](#)—By **Scott Weybright** | Published August 7 in Forbes, Capital Press, Fresh Plaza, Ag Update, Fruit and Veggie
- [New \\$3 million endowment to bolster food security](#)—By **Scott Weybright** | Published September 16 in Capital Press, Daily Evergreen, Vegetable Growers News, Seedquest, Washington Grain Commission

Faculty Highlights and Awards

- **Qin Zhang**, Professor in the Department of Biological Systems Engineering and Director of the Center for Precision & Automated Agricultural Systems, and **Laura Griner Hill** were elected to the Washington State Academy of Sciences.
- **Randy Fortenbery**, Professor in the School of Economic Sciences, was named a 2020 Fellow of the Western Agricultural Economics Association.
- **Drive-In Wi-Fi Hotspots Project Team**, co-led by **Mike Gaffney**, director of Extension's Community and Economic Development Program Unit, earned the Digital Opportunity Equity Recognition award from the Federal Communications Commission.
- **Stephanie Smith**, Consumer Food Safety Specialist in the School of Food Science, received the 1st place Program Excellence Through Research Award from the Washington Extension Association of Family and Consumer Sciences, as well as 1st place in the Western Region and 2nd place nationally for her study, "Assessing consumer food safety education needs across the state of Washington: Implications for nationwide extension programming", published in the Journal of Food Safety.
- **Mark Nelson**, retired associate professor in the Department of Animal Sciences, was awarded the Fellow Award for Teaching by the American Society of Animal Science.

Grant Funding

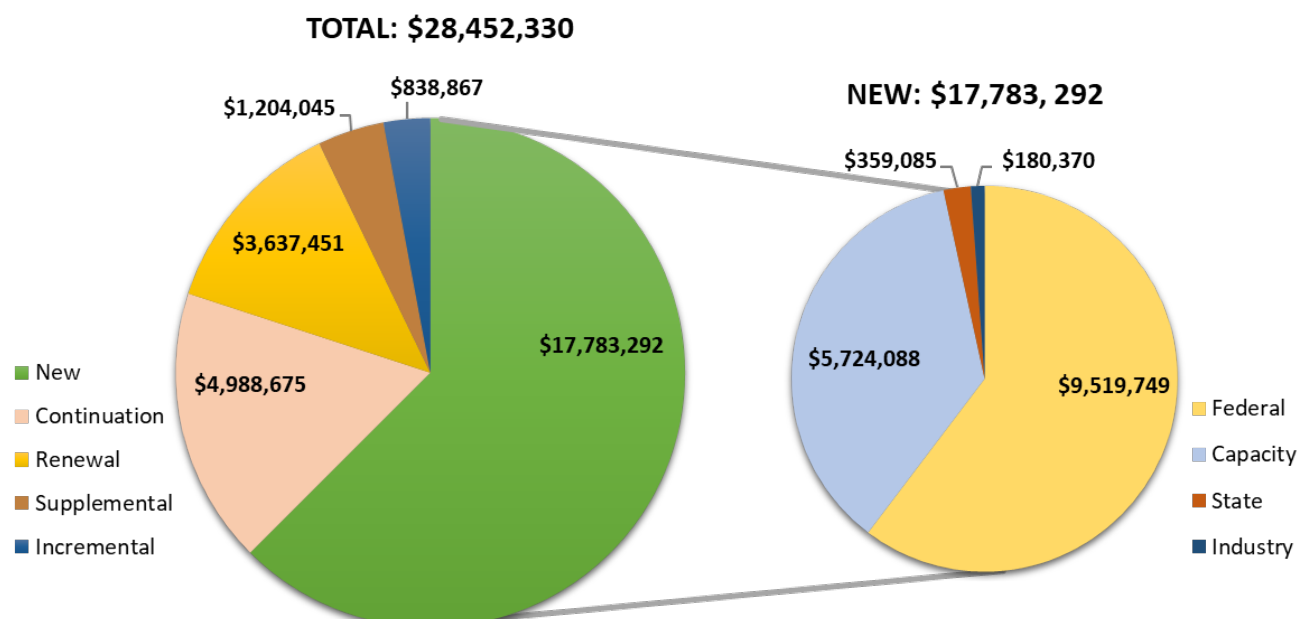
CAHNRS Research and Extension faculty received **\$28.5M** in extramural support in the form of new and ongoing grants, contracts, agreements, and services rendered. A selection of new awards (with award total) is given below:

Notable Grants Include:

- **Markus Keller** (Horticulture), "High-Resolution Vineyard Nutrient Management," USDA-NIFA-SCRI, \$4.75M total award (Multi-institution award led by WSU)
- **Juming Tang** (Biological Systems Engineering) and **Meijun Zhu** (School of Food Science), "Sustainable, Systems-Based Solutions for Ensuring Low-Moisture Food Safety," USDA-NIFA-AFRI, \$850K (\$9.8M award led by Michigan State University)

- **Charlie Robbins** (School of the Environment), “Determining the Future of Polar Bears in a Warming World— Understanding the Occurrence and Cost-Benefit of Terrestrial Foraging and the Implications of Increased Land Use,” NSF, \$742K
- **Tianna Dupont** (Ext., ANR) and **Karina Gallardo** (School of Economic Sciences/Ext.) “Comprehensive Fire Blight Management Systems for the United States,” USDA-NIFA-SCRI, \$695K
- **Lisa DeVetter** (Horticulture), “Optimizing Blueberry Pollination to Ensure Future Yields,” USDA-NIFA-SCRI, \$537K.
- **Elizabeth Weybright** (Human Development/Ext.), “Universal Prevention Approaches to Addressing Opioid Use: Building Capacity Within Rural Families and Extension Personnel,” USDA-NIFA, \$393K

Q3 Grant Funding



Peer-Reviewed Publications

CAHNRS faculty published **239** articles in peer-reviewed journals and conference proceedings: these are cataloged in our Weekly Published Research Archive ([available here](#)). In addition, Extension faculty published 8 Extension Fact Sheets, Bulletins, and Manuals. A selection of notable 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.

- **Amit Dhingra** (Hort.), “The role of conventional plant breeding in ensuring safe levels of naturally occurring toxins in food crops,” TRENDS IN FOOD SCIENCE & TECHNOLOGY – Impact Factor 11.4 – 99.6th percentile in Food Science & Technology
- **Andrei Smertenko** (Institute of Biological Chemistry), **Karen Sanguinet** (Crop & Soil Sciences), **Tetyana Smertenko** (Postdoctoral Researcher, IBC), **Glenn Turner** (Postdoctoral Researcher, IBC), and **Rhoda Brew-Appiah** (Postdoctoral Associate, CSS), “*Brachypodium distachyon* MAP20 functions in metaxylem pit development and contributes to drought recovery,” NEW PHYTOLOGIST– Impact Factor 8.8 –97th in Plant Sciences
- **Wesley Blundell** (SES), “Escalation of scrutiny: The gains from dynamic enforcement of environmental regulations,” AMERICAN ECONOMIC REVIEW– Impact Factor 7.9 – 98th percentile in Economics

- **Qin Zhang** (CPAAS; BSE) and **Yaqoob Majeed** (PhD student, BSE), “Fast and accurate detection of kiwifruit in orchard using improved YOLOv3-tiny model,” PRECISION AGRICULTURE – Impact Factor 4.3 – 99th percentile in Multidisciplinary Agriculture
- **Hang Liu** (AMDT, Composite Materials & Engineering Center), **Michael Wolcott** (CMEC), and **Jinwu Wang** (CMEC), “Propionylation-modified chitin with improved solubility in green ethanol/water binary solvents for sustainable film and coating applications,” JOURNAL OF CLEANER PRODUCTION– Impact Factor 7.5 – 93rd percentile in Environmental Sciences
- **Min Du** (Animal Science), **Meijun Zhu** (SFS), **Yan-Ting Chen** (Postdoctoral Researcher, AS), and **Jun Seok Son** (Postdoctoral Researcher, AS), “Excessive Glucocorticoids During Pregnancy Impair Fetal Brown Fat Development and Predispose Offspring to Metabolic Dysfunctions,” DIABETES – Impact Factor 8.1 – 94th percentile in Endocrinology & Metabolism

Research, Extension Events & Community Outreach

- **Kevin Murphy’s Sustainable Seed Systems Lab** (CSS), in collaboration with the **WSU Food Systems Program** (Ext.), co-produced the **2nd International Quinoa Research Symposium** August 17-19, 2020. 51 speakers and 35 poster participants in 26 sessions presented at this bilingual online event. 939 Registrants from 52 countries registered for this event, with the largest contingencies from the U.S. (20.8%), Perú (14.2%), Bolivia (12.5%), Chile (10.2%), and Ecuador (6.8%). The largest professional sectors represented in registration were Researchers (32.3%), Academics (21.2%) and Farmers (13%). 96% of attendees felt that the organizers met their need for an online event, with 87% also reporting satisfaction with networking and participant interaction. 75% of attendees participated in all three days, pointing to the efficacy of the online event as a community building experience.
- **WSU Extension Forestry**, in partnership with WA State Department of Natural Resources, offered free live webinars to the public: **Mark Swanson** (SOE) co-presented The Genesis of a Forest: Exploring Early Seral Habitat and Management Strategies, August 7; and **Sean Alexander** (ANR) co-presented Restoring the Narrative: Wildfires of Eastern WA, July 30.
- **Tree Fruit Extension** presented the following virtual field days and webinars: **Matt Whiting**—the WSU-OSU Webinar Virtual Cherry Field Day, July 6; **Stefano Musacchi**—Pear Rootstocks & Systems Virtual Field Tour, August 14; **Lee Kalcsits**—The Role of Dendrometers for Irrigation Management in Apple, August 20. The following WA 38 events were presented by **Carolina Torres**, **Ines Hanrahan**, **Stefano Muasacchi**, **Bernardita Sallato**, and **Karen Lewis**: WA 38 Virtual Pre-Harvest Field Day, September 16; WA 38 Grower/field staff pre-harvest Q&A web meeting, September 23; and WA 38 Packer/Shipper Q&A web meeting, September 30.

Development

- The Rosalie & Harold Rea Brown Foundation donated \$3 million to establish the **Rosalie & Harold Rea Brown Distinguished Endowed Chair in Plant Pathology**
- The Columbia Basin Soil Health for Potato Cropping Systems Working Group led development of the newly created **Distinguished Endowed Chair in Soil Health for Potato Cropping Systems**, backed by a more than \$3 million fund created by potato growers, processors, and suppliers.
- The **33rd Auction of Washington Wines** raised over \$1.74 million, proceeds of which will benefit WSU’s Viticulture & Enology Program and Seattle Children’s