

AGRICULTURE

INSIDE AG AUGUST 2026

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MONTANA
STATE UNIVERSITY

College of
AGRICULTURE &
MONTANA AGRICULTURAL
EXPERIMENT STATION

College of Agriculture | August News & Highlights

A quick look at research, people, and impact across the College.

A MESSAGE FROM THE DEAN

Dear Colleagues,

Welcome to the new academic year! Please join me in welcoming our new and returning students to campus.

As we begin this year together, I invite each of us to reflect on our land-grant mission and what it means in our daily work. I continue to be inspired by the enduring promise of land-grant institutions: to expand opportunity, strengthen communities, and bring education, research and service to the people of Montana and beyond. Each of you plays an essential role in making that mission visible every day through your teaching, research, outreach, service, and support for our students and communities.

I am excited that first cohort of students under the Growth through Research Opportunities and Work (GROW) will be arriving in August – thanks to the many donors, our development officer, Jesse Tufte, and the leadership of Joe Lackman and Liz Greenfield for making it happen. It will combine scholarship, paid work, leadership development, and mentoring to help our Montana students receive an affordable education while developing skills beyond the classroom. We also opened a new Wool Lab — one of the only two university-affiliated wool labs in the nation — co-located with two other labs that serve Montana agriculture. My sincere gratitude to all the people who helped us get to the finish line. We additionally had a series of successful field days, thanks to all our faculty, staff, students, and leaders who made it happen. These are all great examples of land-grant mission in action where research, teaching, and outreach come together, and we expand opportunities for students and strengthen communities.

We are also pleased to welcome several new colleagues to the college: Erica Strickland and Sara Carr in Fiscal Operations; Ethan Igo, assistant to the dean, vice president and director; EmmaLee Rotlisberger as communications specialist; and Nick Guerin in compliance. Please take a moment to introduce yourself and help them feel at home in our college community.

Thank you for all you do to support our students, one another and the mission of the College of Agriculture. I wish you a successful and rewarding academic year.

Yours in service,

Sreekala Bajwa

VP, Dean and Director





UPCOMING EVENTS

Field Day: Interseeding Cover Crops

Saturday, September 12th 2-7:30pm

RSVP to sophia.lattes@student.montana.edu



Use this map
to navigate the day!

Schedule-

**2pm: Meet at Towne's Harvest
for a carpool**

2:30pm: Kokoro farm tour

3:30pm: Amaltheia farm tour

5pm: Chance farm tour

**6pm: Towne's Harvest Garden tour
and pizza party!**

MSU has been studying interseeded cover crops in organic vegetables with three partner farms in the Gallatin area. They all have been seeding cover crops alongside their vegetables and have great learnings to share! Come join us on a **four farm field day tour**, followed by a pizza party at our MSU horticultural research farm, Towne's Harvest Garden (we'll have pizzas, feel free to bring a side). This tour will be farmer oriented, but all community members are welcomed to join and learn together!

COLLEGE OF AG IN THE NEWS



Hundreds celebrate grand opening of Combined State Labs building at Montana State

Hundreds celebrated the grand opening of the Combined State Laboratories Building, a collaborative facility housing the Wool Lab, Veterinary Diagnostic Lab and Analytical Lab to support Montana agriculture.

 Montana State University / Jul 24

COMBINED STATE

LABORATORIES GRAND OPENING

Montana State University, the Montana Department of Livestock and the Montana Department of Agriculture celebrated the grand opening of the Combined State Laboratories building, marking the completion of a long-planned facility that brings together the MSU Wool Lab, Veterinary Diagnostic Lab and Analytical Lab to strengthen research, education and services that support Montana agriculture.



International pollinator conference brings global researchers to Montana State to strengthen research and foster collaboration

Researchers from around the world gathered at Montana State University for the International Conference on Pollinator Biology, Health and Policy to share research on pollinator health, conservation and collaboration.

 Montana State University / Jul 10

INTERNATIONAL POLLINATOR **CONFERENCE**

Researchers from around the world gathered at Montana State for the International Pollinator Conference to share the latest discoveries in pollinator science, strengthen collaborations and explore new approaches to improving pollinator health and sustaining ecosystems.



ACCOMPLISHMENTS AND HIGHLIGHTS

RETURNING TO OUR GOOD CAMP PROGRAM

The Returning To Our Good Camp Program, funded by New Beginnings for Tribal Students, NIFA, USDA, announced student scholarship awards for academic achievement. The list includes students recognized with Highest Honors, High Honors, Honors, and Scholar distinctions across multiple majors.

Highest Honors

Asa Barrett • Axel Bensch • Fiona Collister • Emilie Courchesne • Rylie Dupuis • Kody Gust • Tucker Lytton • Danner Rourke Kelly • Apollo Rowland

High Honors

Kelan Heath • Kristie Kulbeth • Raley Nicole McIntosh • Sydney Watts • Abigail Whitman

Honors

Elle Attwood • Emily Barcus • Andrew Boese • Larissa Lahr • Eliot LaTray • Rhett Michael • Alyssa Peck • Antonio Perez • James Richards • Lila Rodriguez • Matthew Scott

Scholars

Ulali Adams • Leah Big Plume • Faith Carter • Summer Ceballos • Heidi Eisemann • Logan Guthrie • Kylee Lamoure • Gabriel LaRoche • Jozette Limpy • Emma McClue • Lydell Mitchell • Raul Rosas • James Russette • Grace Tallbull • Tyrel Ten Bear





BRINK AND ROEDER RECEIVE DISTINGUISHED AWARDS

Congratulations to **Dave Brink** and **Brent Roeder** for receiving national recognition from the National Association of County Agricultural Agents. Brink, MSU Extension 4-H and Agriculture/Natural Resources agent in Mineral County, received the **2026 Distinguished Service Award**. Roeder, MSU Extension Sheep and Wool Specialist and supervisor of the Montana Wool Lab, received the **2026 Achievement Award**.

Brink was recognized for his work educating youth and adult learners on topics including livestock quality assurance, forest stewardship, vertebrate pest management, parliamentary procedure, pesticide safety, horticulture, and other duties as assigned.

Roeder was recognized for his efforts advancing Montana's sheep and wool industry, including integrating new technologies, supporting value-added wool production and helping secure support for the new Montana Wool Research Lab at MSU.

STUDENT EXPERIENCE: DAEE BRAZIL STUDY ABROAD COURSE

Fifteen students and three faculty members from the Department of Agricultural Economics and Economics traveled to Brazil in May as part of the Agriculture in a Global Context (AGBE 315) course. The international experience provided students with an opportunity to explore agriculture in a global setting and gain firsthand exposure to Brazilian agriculture and culture. Photos from the trip are included below.



GRANTS AND PUBLICATIONS

RECENT GRANTS

Dr. Nick Hagerty (AEE) received a grant from the Foundation for Food and Agriculture Research with collaborators at UC Berkeley and UC Davis; the total award is \$546,046.

Dr. Shilan Felehgari, Dr. Paul Nugent and Dr. Tony Hartshorn (LRES) received a grant from Montana NASA EPSCoR to pursue a project entitled *Satellite-Based Integration of Snowpack and Radar Observations for Predicting Spring Soil Moisture Across Montana's Landscapes*; the total award is \$60,000.

RECENT PUBLICATIONS

Adhikari, M., Payare, S., Pinto, R. "Can High Resolution UAV-Derived Weed Maps Replace Camera-Based Targeted Spray Application?" *Frontiers in Agronomy*.

Bowley, J. L., Higley, L. G., Peterson, R. K. D. "The Effect of Environment on Ventral Abdominal Temperature in Five Tiger Beetle Species (Coleoptera: Cicindelidae)." *Biology*.

Callaway, H. M. "Structural Overview of Lyssavirus Glycoproteins, Antibodies, and Receptors." *Journal of Virology*.

Cerqueira de Melo Vasco, A. C., Brooks, S., White-Springer, S. H., Hammer, C. J., Bruemmer, J. E., Yoho, T., Jacobs, R. "Horse Species Symposium: Current and Future Outlook on Equine Industry, Research Trends, and Opportunities: How to Promote a Sustainable Field into the Future." *Journal of Animal Science*.

Christian, W. C., Jay, Z. J., Tolic, N., Nicora, C. D., Livingstone, R., Trimmer, S., McDermott, T. P., Hatzenpichler, R. "Proteomic Stress Response by a Novel Methanogen Enriched from the Great Salt Lake." *Environmental Microbiology*.

Correa De Brito, A., Silveira, P. T. D. S., Uhlmann, H., Schmidt, F. L., Sherman, J. "Barley Koji: Exploring the Effects of Steeping and Fermentation on Malt Quality Parameters." *Journal of the American Society of Brewing Chemists*.

Cornelissen, T., Mendes, G. M., Silveira, F. A. O., Dáttilo, W., Guevara, R., Aguilar, M. G. B., Campos, R., Wetzel, W. C., et al. "Quantifying Leaf Herbivory: A Guide to Methodological Trade-offs and Best Practices." *Ecology*.

GRANTS AND PUBLICATIONS

Desai, H. S., Chauhan, B. S. "Temperature-Dependent Differences in the Growth, Fecundity, and Germination Pattern of Two Populations of *Chloris virgata*." Journal of Crop Health.

Eberly, J. O., Berrios-Ortiz, L., Hurd, A., Shergill, L., Dyer, A. T., Menalled, F. D. "Wheat Rhizosphere Bacterial Community Response to *Bromus tectorum* (L.) and *Fusarium pseudograminearum* Crown Rot." Microbial Ecology.

Eberly, J. O., Wyffels, S. A., Voll, M. M., van Emon, M., DelCurto, T. "Interactions Between Rumen Degradable Protein and Delivery Method Drive Changes in the Rumen Microbiome of Beef Cattle on Low-Quality Forage Diets." Frontiers in Animal Science.

Jaimes Cruz, L. J., Molina Macias, K. F., Cadavid Henao, S., Acosta Lobo, M. E., Cuervo Vivas, W. A., Galeano Correa, M. V., Correa Cardona, H. J., Escobar Riomalo, J. E., Giraldo Mejia, A. "Enteric Methane Emissions from Holstein Cows Grazing Kikuyu Grass in the Colombian High Tropics During Two Seasons." Animals.

Kadium, V. R., Pilli, R., Syvantek, A., Wang, Z., Stenger, J., Bhoomireddy, R., Auwarter, C., Li, X., Hatterman-Valenti, H. "Dissecting the Genetic Basis of Relevant Fruit Quality Traits in Interspecific Grapevines (*Vitis* spp.)." Horticulture Research.

Knauer, A., Adhikari, S., Andersson, G. K. S., Andrieu, E., Báldi, A., Batáry, P., Borsch, J., Menalled, F. D., et al. "Pesticides and Habitat Loss Additively Reduce Wild Bees in Crop Fields." Nature Ecology & Evolution.

Kohtz, A. J., Nupp, S., Hatzenpichler, R. "Cultivation of *Methanonezhaarchaeia*, the Third Class of Methanogens Within the Phylum Thermoproteota." Science Advances.

Lejeune, R., Fuentes-Lillo, E., Alexander, J., Dimarco, R. D., Haesen, S., Haider, S., Hostens, L., Seipel, T., et al. "Mountain Roads Across the Globe Significantly Alter Local Soil Thermal Microclimates." Global Ecology and Biogeography.

Londono-Mendez, M. C., Lasso-Ramirez, S., Fitzsimmons, C., Plastow, G., Basarab, J., Cerqueira de Melo Vasco, A. C., Elins Moreira Silva, A., Macias Franco, A., Vinsky, M., Li, C., Medeiros da Silva, G. "Seasonal Metabolic and Growth Responses of Grazing Beef Heifers Divergent in Residual Feed Intake." PLOS ONE.

Moley, C. R., Abushahba, M. F., Ponzilacqua-Silva, B., Skyberg, J. A. "STAT1 and STAT2 Signaling Play a Protective Role Against Bacterial Colonization and Development of Neurologic Signs During *Brucella* Infection." The Journal of Immunology.

Montgomery, A., Nupp, S., Gray, C. R., Jay, Z. J., Edgcomb, V., Hatzenpichler, R. "Tracking Active Heterotrophic Microbial Communities in the Guaymas Basin Deep Biosphere with BONCAT-FACS." ISME Communications.

GRANTS AND PUBLICATIONS

Peterson, R. K. D., Kennedy, T. E., Strand, J. R. "Risk Determination for Non-target Arthropods from Outdoor Space Applications of Mosquito Adulticides." Journal of Medical Entomology.

Pfau, J. C., Keil, D. E. "Ecotoxicological Pathways Overlooked: A Critical Evaluation of the Baseline Ecological Risk Assessment and Potential Natural Resource Injury from Libby Amphibole Asbestos." Journal of Toxicology and Environmental Health.

Rawale, K. S., Schroeder, K., McPhee, K., Chen, Y. C., Chen, W., Gill, K. S. "Identification of Novel Sources of Ascochyta Blight Resistance in Wild Relatives of Chickpea." Journal of Phytopathology.

Reinhart, K. O., Tossou, S. F. A., Rinella, M. J., Eberly, J. O., McGranahan, D., Worogo, H. S., Waterman, R. C., Vermeire, L. T. "Soil Carbon-Enzyme Relationships Persist Despite Neutral Long-Term Grazing Effects in the Northern Great Plains." Agriculture, Ecosystems & Environment.

Rhea, A. E., Covino, T. P., Rhoades, C. C. "Long-term Fire Effects on Soil and Vegetation Nitrogen Cycling: Potential Links to Persistent Stream Nitrate Export." International Journal of Wildland Fire.

Schepetkin, I. A., Fischer, A. M. "Activity-Based Profiling of Papain-like Cysteine Proteases in Different Plant Organs During Barley Development." Plants.

Shikany, J. I., Banks, M. M., Barnhart, E. P., Kinsey, S., Wright, P., Kageyama, S. A., Merkes, C. M., Kulesza, N., Wylie, J., Halonen, S., Ortega-Villa, A. M., Long, C. M., Peyton, B. M., Puzon, G. J. "Detection of Naegleria fowleri in Thermally Impacted Recreational Waters of Western United States National Parks." ACS ES&T Water.

Tague, C., Barnard, H. R., Harpold, A. A., Heckman, C. J., Johnson, K., Knowles, J. F., Lininger, L. E. L., Navarre-Sitchler, A., Parrish, E., Singha, K., Sullivan, P. L., Warix, S. "James Buttle Review: Dynamic Water Storage Shapes Critical Zone Function in Snow-Dominated Mountain Watersheds." Hydrological Processes.

Zhu, X., Jiang, S., Zhao, J., Peng, F., Zhao, R., Li, X., Luo, Y., Huang, L., et al. "Functional Dissection of a Wheat NLR Protein Reveals a Minimal Active Region and Key Regulatory Sites for Immune Signalling." Molecular Plant Pathology.

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