Curriculum Vitae

Yushu Xia

ORCID: 0000-0002-8250-5381

EDUCATION

- Ph.D., Natural Resources and Environmental Sciences, University of Illinois at Urbana-Champaign, 2016 – 2021
- M.S., Natural Resources and Environmental Sciences, University of Illinois at Urbana-Champaign, 2014 – 2016
- B.S., Environmental Science, Zhejiang University, 2010 – 2014

RESEARCH POSITIONS

- Lamont Assistant Research Professor, Columbia University, since Feb 2024
- Affiliated Faculty, Data Science Institute, Columbia University, since Jan 2025
- Affiliated Faculty, Department of Ecology, Evolution, and Environmental Biology, Columbia University, since Oct 2024
- Affiliated Faculty, Department of Earth and Environmental Sciences, Columbia University, since Feb 2024
- Research Scientist, Woodwell Climate Research Center (formerly Woods Hole Research Center), Aug 2023 – Jan 2024
- Postdoctoral Researcher, Woodwell Climate Research Center, Aug 2021 – Aug 2023 (supervised under Dr. Jonathan Sanderman)
- Graduate Research Assistant, University of Illinois at Urbana-Champaign, Aug 2014 – Aug 2021 (supervised under Prof. Michelle Wander)

TEACHING EXPERIENCE

- Instructor, PS5360: Agroecology, Columbia University, Spring 2025
- Teaching Assistant, NRES 102: Introduction to NRES, University of Illinois at Urbana-Champaign, Spring 2019
- Teaching Assistant, NRES 201: Introductory Soils, University of Illinois at Urbana-Champaign, Fall 2016

HONORS AND AWARDS

- Researcher of the Month, Columbia University, 2025.
- iN-Net Research Fellowship, Data working group of the International Nitrogen Network, 2025.

- Roland Schlich Travel Award for Early Career Scientist, EGU24 General Assembly, 2024.
- The 1st place in student oral presentation, Soil C and GHG emissions, ASA-CSSA-SSSA International Annual Meeting, 2019.
- Teachers Ranked as Excellent by their Students, University of Illinois at Urbana-Champaign, 2017.
- Travel Award for Graduate Student, University of Illinois at Urbana-Champaign, 2017.
- Graduated with Honor of Zhejiang Province, Educational Office of Zhejiang Province, 2014.
- National Scholarship, Ministry of Education in China, 2013.
- First-class scholarship for outstanding students, Zhejiang University, 2011-2013.

FUNDING AND GRANTS

- PI, Examining the Impact of Land Management on Ecosystem Services in the Hudson Valley Region ($6,898), Columbia Climate School Seed Funding Award, 2025.
- PI, Developing a fieldwork component for the course Agroecology: A Natural Climate Solution ($2,594), Columbia Climate School Course Support Program, 2025.
- PI, Leveraging Multi-Scale Datasets and Modeling Tools for Improved Soil Health and Carbon Management ($443,206), Foundation for Food & Agriculture New Innovator Award, 2025.
- Subaward PI, Carbon Monitoring on the Range: Continuing Support for Woodwell Climate Research Center's Rangeland Program ($244,991 for the Columbia portion), awarded by Conscience Bay Research, 2025.
- Co-PI, Evaluating the Contributions of Nature-Based Solutions to Protecting Biodiversity and Building Resilient Communities in Rural China ($25,000), awarded by Columbia Global, 2025.
- PI, Leveraging Multi-Source Datasets with Soil Survey to Improve the Spatiotemporal Evaluation of Dynamic Soil Properties ($499,348 to be updated with expanded scope of work), awarded by USDA NRCS (Cooperative Agreement), 2024.
- PI, Modeling High Resolution Soil Health Outcomes Tied to Climate Smart Grassland Management Practices for Hudson Valley ($19,919), awarded by the LDEO Climate Center at Columbia University, 2024.
- PI, Coordinate and Support USDA Model Intercomparison and Ensemble for Improved Assessment of Farm Management Practices ($4,900,000), USDA NRCS (Cooperative Agreement), 2024.
- PI, Quantifying Carbon and Soil Health Outcomes on Audubon's Conservation Ranching Certified Ranches ($83,377), awarded by National Audubon Society, 2024.
- Subaward PI, Pilot Monitoring and Reporting System for Tracking Carbon Benefits of Improved Grazing Management in the Northern Great Plains ($58,000 for the Columbia portion), awarded by National Fish and Wildlife Foundation, 2024.

- Subaward PI, Develop a Plan to Improve Estimates of Carbon Sequestration in Grasslands ($15,960 for the Columbia portion), awarded by National Fish and Wildlife Foundation, 2024.
- Co-PI, Robust Monitoring, Reporting and Verification for Climate-Smart Range Management, awarded by National Fish and Wildlife Foundation, 2023.
- Co-PI, Global Hotspots and Hot Moments of Nitrous Oxides, awarded by Woodwell Climate Fund for Climate Solution, 2022.
- Co-PI, Rangelands Carbon Monitoring, awarded by Mighty Arrow Foundation, 2022.
- Co-PI, Developing Woodwell's Rangeland Program for Ecosystem Carbon Monitoring and Management, awarded by J.M. Kaplan Fund, 2022.
- PI, ACES Graduate Student International Research Grant ($3,000), University of Illinois at Urbana-Champaign, 2018.
- PI, Soil Health Institute Literature Review Grant for Graduate Students ($8,000), Soil Health Institute, 2017.

PUBLICATIONS

Journal Articles

- **Xia, Y.**, Sanderman, J., Watts, J., Machmuller, M., Mullen, A., Rivard, C., Endsley, A., Hernandez, H., Kimball, J., S. Ewing., et al. 2025. Coupling Remote Sensing with a Process Model for the Simulation of Rangeland Carbon Dynamics. *Journal of Advances in Modeling Earth Systems*. 17: e2024MS004342. doi: 10.1029/2024MS004342.
- Obour, P., **Xia, Y.**, Ugarte, C., Grift, T., and Wander, M. 2024. Soil Physical Properties and Water Dynamics Under Contrasting Management regimes at the Morrow Plots. *Soil & Tillage Research*. 248: e106422. doi: 10.1016/j.still.2024.106422.
- **Xia, Y.**, Sanderman, J., Watts, J., Machmuller, M., Ewing, S., and Rivard, C. 2024. Leveraging Legacy Data with Targeted Field Sampling for Low-cost Mapping of Soil Organic Carbon Stocks on Extensive Rangeland Properties. 448: e116952. *Geoderma*. doi: 10.1016/j.geoderma.2024.116952.
- **Xia, Y.**, Kwon, H., and M. Wander. 2024. Estimating Soil N_2O Emissions Induced by Organic and Inorganic Fertilizer Inputs Using a Tier-2, Regression-based Meta-analytic Approach for U.S. Agricultural Lands. *Science of The Total Environment*. 927: e71930. doi: 10.1016/j.scitotenv.2024.171930.
- Bulgari, R., Demiraj, E., Schillaci, C., Tlili, A., and **Xia, Y.** 2024. Urban Agriculture & Regional Food Systems Special Section: Improving Livability in Urban Areas: Examining Urban and Peri‐Urban Soil and Plant Management. *Urban Agriculture & Regional Food Systems*. 9: e20062. doi: 10.1002/uar2.20062.
- **Xia, Y.**, Watts, J. Machmuller, M., and Sanderman, J. 2022. Machine Learning Based Estimation of Field-Scale Daily, High Resolution, Multi-Depth Soil Moisture for the Western and Midwestern United States. *PeerJ.* 10: e14275. doi: 10.7717/peerj.14275.

- **Xia, Y.**, M. Wander, S. Quiring, S. Yuan, and H. Kwon. 2022. Process-based Modeling of Soil Nitrous Oxide Emissions from United States Corn Fields under Different Management and Climate Scenarios Coupled with Evaluation using Regional Estimates. *Frontiers in Environmental Science*. 9: e971261. doi: 10.3389/fenvs.2022.971261.
- **Xia, Y.**, M. Wander, and K. McSweeney. 2022. Digital Mapping of Agricultural Soil Organic Carbon Using Soil Forming Factors: A Review of Current Efforts at the Regional and National Scales. *Frontiers in Soil Science*. 7: e890437. doi: 10.3389/fsoil.2022.890437.
- **Xia, Y.** and M. Wander. 2022. Management Zone-based Estimation of Positive and Negative Nitrous Oxide Flux in Organic Corn Fields. *Soil Science Society of America Journal*. 86: 1043-1057. doi: 10.1002/saj2.20416.
- **Xia, Y.** and M. Wander. 2021. Evaluation of Indirect and Direct Scoring Methods to Relate Biochemical Soil Quality Indicators to Ecosystem Services. *Soil Science Society of America Journal*. 86: 678-702. doi: 10.1002/saj2.20370.
- **Xia, Y.** and M. Wander. 2021. Responses of β-Glucosidase, Permanganate Oxidizable Carbon, and Fluorescein Diacetate Hydrolysis to Conservation Practices. *Soil Science Society of America Journal*. 85(5): 1649-1662. doi: 10.1002/saj2.20261.
- **Xia, Y.**, Kwon, H., and M. Wander. 2021. Developing County-level Data of Nitrogen Fertilizer and Manure Inputs for Corn Production in the United States. *Journal of Cleaner Production*. 309: e126957. doi: 10.1016/j.jclepro.2021.126957.
- **Xia, Y.**, Guan, K., Copenhaver, M., and M. Wander. 2020. Estimating Cover Crop Biomass Nitrogen Credits with Sentinel-2 Imagery and Sites Covariates. *Agronomy Journal.* 113: 1-18. doi: 10.1002/agj2.20525.
- **Xia, Y.**, Ugarte, C., Guan, K., Pentrak, M., and M. Wander. 2018. Developing Near- and Mid-infrared Spectroscopy Analysis Methods for Rapid Assessment of Soil Quality in Illinois. *Soil Science Society of America Journal*. 82: 1415-1427. doi: 10.2136/sssaj2018.05.0175.

Reports

- **Xia, Y.**, Sanderman, J., Watts, J., Carr, C., Stephanie, E., Parisien, A., et al. 2025. Robust monitoring, reporting, and verification for grassland management in the Great Plains. Report for National Fish and Wildlife Foundation. doi: 10.1575/1912/71403.
- Wander, M., Darby, H., Marriott, E., Heleba, D., **Xia, Y.**, Kwon, H., and L. Ruhl. 2019. Organic decision tools to manage N for production and climate. Report for National Institute of Food and Agriculture.
- **Xia, Y.** and M. Wander. 2018. Review of novel soil indicators and environmental impacts of soil health promoting management practices. Soil Health Institute.
- **Xia, Y.**, Kwon, H., and M. Wander. 2017. Adding U.S. domestic N_2O emission factors to the Greenhouse gases, Regulated Emissions, and Energy use in Transportation (GREET) model. Final report for Argonne National Lab.

Datasets

- Leschinsky, G. and **Xia, Y.** 2025. Soil N_2O Emissions in Organic Farming Systems: A North American Meta-Dataset. Columbia University Academic Commons. doi: 10.7916/q0np-1w51.
- **Xia, Y.**, H. Kwon, and M. Wander. 2024. Soil nitrous oxide emissions data for "Estimating soil N_2O emissions induced by organic and inorganic fertilizer inputs using a Tier-2, regression-based meta-analytic approach for U.S. agricultural lands". University of Illinois at Urbana-Champaign Data Bank. doi: 10.13012/B2IDB-9808669_V1.
- **Xia, Y.**, M. Wander, and H. Kwon. 2021. County-level data of nitrogen fertilizer and manure inputs for corn production in the United States. University of Illinois at Urbana-Champaign Data Bank. doi: 10.13012/B2IDB-3112432_V1.
- **Xia, Y.** and M. Wander. 2018. Response of Tier 2 Soil quality indictors β-glucosidase, fluorescein diacetate hydrolysis and permanganate oxidizable carbon. University of Illinois at Urbana-Champaign Data Bank. doi: 10.13012/B2IDB-2865725_V3.
- **Xia, Y.** and M. Wander. 2018. Correlation between Tier 2 soil quality indictors β-glucosidase, fluorescein diacetate hydrolysis and permanganate oxidizable carbon and plant productivity and greenhouse gas emissions. University of Illinois at Urbana-Champaign Data Bank. doi: 10.13012/B2IDB-4693684_V2.

Open-source codes and applications

- Downscale soil moisture estimates using a machine learning approach: https://github.com/xiayushu/RCTM-soil-moisture
- Develop baseline estimates of soil carbon using a digital soil mapping approach: https://github.com/xiayushu/RCTM-soil-carbon
- Developing a Rangeland Carbon Tracking and Monitoring System: https://zenodo.org/records/11508223
- A web-based interface for visualizing rangeland soil carbon dynamics: https://rangelands.users.earthengine.app/view/app2023

PROFESSIONAL PRESENTATIONS

Conference presentations

- **Xia, Y.**, Sanderman, J., Watts, J., Machmuller, M., Mullen, A., Rivard, C., Endsley, A., et al. 2025. Developing a Rangeland Carbon Tracking and Management (RCTM) system by leveraging field and remote sensing datasets with modeling tools. Society for Range Management Annual Meeting.
- **Xia, Y.**, Sanderman, J., Watts, J., Machmuller, M., Mullen, A., Rivard, C., Hernandez, H., and E. Stephanie. 2023. Ranch-scale monitoring of soil carbon and rangeland productivity. AGU Meeting.
- **Xia, Y.**, Sanderman, J., Watts, J., Machmuller, M., Mullen, A., Rivard, C., Hernandez, H., and E. Stephanie. 2023. Developing a Rangeland Carbon Tracking and

Monitoring tool using remote sensing imagery and process-based modeling approach. ASA, CSSA, & SSSA Annual Meeting.

- **Xia, Y.**, Sanderman, J., Watts, J., Hernandez, H., Machmuller, M., and E. Stephanie. 2022. Developing a Rangeland Carbon Tracking and Monitoring (RCTM) tool using remote sensing imagery and process-based modeling approach. AGU Meeting.
- Sanderman, J., **Xia, Y.**, Hernandez, H., Watts, J., Francesca, C., Stephanie, E., and M. Machmuller. 2022. Measuring soil organic carbon on the range: Challenges and Emerging Approaches. Society for Range Management Meeting.
- **Xia, Y.**, Kwon, H., and M. Wander. 2020. Spatially explicit nitrogen input data generated for corn production with a data fusion approach. ASA, CSSA, & SSSA Annual Meeting.
- **Xia, Y.**, M. Wander, and Kwon, H. 2020. Downscaling process-based soil organic matter model and N input data for estimation of soil N losses. AGU Meeting.
- **Xia, Y.**, Kwon, H., and M. Wander. 2019. Estimation and modeling of field-scale soil nitrous oxide emissions based on strategic sampling plans. ASA, CSSA, & SSSA Annual Meeting.
- **Xia, Y.**, Xu, H., Wander, M., and H. Kwon. 2019. Spatial crop-soil data parameterize modeling of nitrous oxide emissions from corn production for biofuel. ASA, CSSA, & SSSA Annual Meeting.
- Wander, M., Darby, H., Marriott, E., Ruhl, L., Kwon, H., and **Y. Xia**. 2019. Tools to manage nitrogen organically for crops, soils and the environment. ASA, CSSA, & SSSA Annual Meeting.
- Kwon, H., Xu, H., Cai, H., **Xia, Y.**, and M. Wander. 2019. Nitrogen fertilizer-induced N_2O emission factors for corn ethanol life-cycle analysis. Bioenergy Sustainability Conference.
- Wander, M., Darby, H., Kwon, H., **Xia, Y.**, Aves, K. Marriott, E., Ruhl, L., and P. Hobbs. 2019. Where is the N going on your farm? A workshop to help organic farmers manage nitrogen for crops, soils and the environment. Organic Grain Conference.
- **Xia, Y.**, Kwon, H., and M. Wander. 2017. Use of Rapid Assessment of U.S. Soil Carbon dataset to calibrate a surrogate Century model. ASA, CSSA, & SSSA Annual Meeting.
- **Xia, Y.**, Ugarte, C., Guan, K., and M. Wander. 2015. Rapid assessment of soil quality in Illinois using near- and mid-infrared spectroscopic method. ASA, CSSA, & SSSA Annual Meeting.

<u>Invited talks</u>

- **Xia, Y.**, Modeling soil carbon and ecosystem outcomes. Earth Observations: Conversations with Lamont Scientists Series. 2025
- **Xia, Y.**, The Conservation-MIP project for evaluating soil health outcomes. Panelist for Mitigation and Adaptation Co-Benefits and Life Cycle Analysis. AgMIP10 Meetings. 2025

- **Xia, Y.**, Integrating soil carbon and greenhouse gas monitoring into regionalized ecosystem service evaluation. Panelist for "Where" Matters! Better Measuring, Monitoring and Modeling of Carbon and GHG Cycles in Landscapes. A Community on Ecosystem Services. 2024
- **Xia, Y.**, Climate change mitigation and adaptation through improved soil carbon management. Lamont 75th Anniversary Symposium: Life and Earth. Lamont-Doherty Earth Observatory. 2024.
- **Xia, Y.**, Evaluation of soil ecosystem services by coupling modeling tools with multi-scale datasets. Department of Ecology, Evolution, and Environmental Biology (E3B), Columbia University. 2024.
- **Xia, Y.**, Monitoring soil health and the associated agroecosystem outcomes: Combining in-situ observations with remote sensing data and modeling tools. Cary Institute of Ecosystem Studies. 2024.
- **Xia, Y.**, Understanding and quantifying the role of soil carbon in forest and agricultural ecosystems. Guest lectures for Columbia's M.S. in Sustainability Science and M.A. in E3B programs.
- **Xia, Y.**, A New Frontier: Data-informed soil management in a changing climate. IBM Research Seminars. 2024.
- **Xia, Y.**, Climate outcomes associated with sustainable soil management. Lamont summer intern lectures. Lamont-Doherty Earth Observatory. 2024.
- **Xia, Y.**, How I became a soil scientist and what is soil science. Secondary School Field Research Program. Lamont-Doherty Earth Observatory. 2024.
- **Xia, Y.**, Sanderman, J., Watts, J., Hernandez, H., Machmuller, M., and E. Stephanie. Developing a Rangeland Carbon Tracking and Monitoring system using remote sensing imagery coupled with a modeling approach. EGU Meeting. 2024.
- **Xia, Y.**, Sanderman, J., Watts, J., Hernandez, H., Machmuller, M., and E. Stephanie. Woodwell's rangeland carbon program. JBS Beef Sustainability Summit. 2023.
- **Xia, Y.**, Leveraging multi-scale data sources for sustainable soil management. Department of Environmental Science, Rutgers University. 2023.
- **Xia, Y.**, Improving soil carbon monitoring through integrated data analysis and modeling. Lamont-Doherty Earth Observatory. 2023.
- **Xia, Y.**, Leveraging multi-scale datasets and pedology knowledge for improving soil carbon management and assessments. Department of Crop and Soil Science, Oregon State University. 2023.
- **Xia, Y.**, Synergizing integrated data analysis for advancing agroecology in sustainable soil management. Department of Plant and Soil Sciences, University of Delaware. 2023.

SKILLS

- Programming languages: R, Python, SAS, C, Visual Basic, Mathematica, Javascript, Matlab, Julia

- Computer software skills: ArcMap, QGIS, Google Earth, ENVI, STELLA, AutoCAD, OriginLab, Adobe Premiere Pro
- Cloud computing platforms: Google Earth Engine, Google Cloud Platform, Google Colab, Jupyter notebook
- Website design platforms: Google Earth Engine app, Wolfram, R markdown
- Modeling skills: modeling of soil carbon and greenhouse gas fluxes using machine learning and process-based models
- Field skills: soil and plant biomass sampling, greenhouse gas measurements
- Lab skills: spectroscopy, elemental analyzer, gas chromatograph, soil health assessment through the test of soil physical, chemical, and biological indicators

SERVICE

Review activities

- Reviewed for *Science, PNAS, Nature Sustainability, Global Change Biology, Remote Sensing of Environment, Environmental Research Letters, Geophysical Research Letters, Journal of Environmental Management, Ecological Indicators, Soil Science Society of America Journal*, *Agronomy Journal*, *European Journal of Soil Science*, *Applied Soil Ecology, Scientific Reports, Soil Use and Management, Pedosphere, Field Crops Research, Plant and Soil, PLOS ONE, Remote Sensing Applications: Society and Environment, Environmental Research Communications, Urban Agriculture & Regional Food Systems, Sustainability, Remote Sensing, Agronomy, Agriculture, Sensors, Forests, Energies, Restoration Ecology, International Journal of Environmental Research and Public Health, Applied Sciences, Journal of Ambient Intelligence and Smart Environments, Plant Methods, Discover Soil, Discover Sustainability, Environmental Research: Ecology*, and *Current Research in Environmental Sustainability*.
- Reviewed ad-hoc for NSF's Division of Environmental Biology (program confidential), 2025.
- Review Panelist for USDA's National Institute for Food and Agriculture (programs confidential), 2024-2025.
- Reviewed ad-hoc for USDA's Climate Dashboard Project, 2024.
- Judged the student oral presentation competition for "Applications of Agricultural Systems Models to Address Emerging Issues and Climate Resilience" session at the 2023 ASA, CSSA, & SSSA Annual Meeting.
- Reviewed for the Foundation for Food & Agriculture Research (FFAR) Seeding Solutions Program Grants, 2022.

Editorial activities

- Editorial Board Member for Discover Soil, 2024.
- Guest Editor for Urban Agriculture & Regional Food Systems, 2023.

Memberships

- Member of the American Society of Agronomy, Soil Science Society of America, American geophysical Union, European Geosciences Union, the World Economic Forum's Generation Restoration Youth Hub, and the AgMIP community.
- Member of the code of conduct committee at Lamont-Doherty Earth Observatory, 2024.
- Postdoctoral liaison for Woodwell Climate Research Center, 2022-2023.

Mentorship

- Advisor for a Postdoctoral Research Scientist at Columbia University. 2024-2025.
- Advisor for an undergraduate senior thesis student through Columbia's Environmental Science program. 2024-2025.
- Co-advisor for a Ph.D. student at the Department of Natural Resources and Environmental Sciences, University of Illinois at Urbana-Champaign. 2025.
- Mentor for an independent study student through Barnard's Environmental Science program. 2024.
- Committee member for two Ph.D. students at Department of Earth and Environmental Sciences at Columbia University. 2024-2025.
- Committee member for a M.A. student at Department of Ecology, Evolution, and Environmental Biology at Columbia University. 2025.
- Mentor for a group of high school students through Columbia's Secondary School Field Research Program. 2024.
- Mentor for three high school students through the Senior Experience program at Bergen County Academies. 2024-2025.
- Mentor for a group of undergraduate students (2017 to 2019) through the Office of International Programs at the University of Illinois at Urbana-Champaign.
- Mentor for a number of undergraduate and graduate students in field sampling, lab analysis, data analysis, and applied mathematical modeling at University of Illinois at Urbana-Champaign (2016 to 2021) and Woodwell Climate Research Center (2021 to 2023).

Community service and outreach activities

- Organized the "Carbon Secrets: Exploring Soil and Forest Carbon at Lamont Sanctuary Forest" Exhibition at the Lamont Open House: Discover Earth Science in 2024.
- Co-convener of the "Modeling Food System Mitigation" session at AgMIP10 in 2025.
- Co-convener of the "Advances in Understanding Water-Energy-Carbon Interactions" session at AGU in 2024.
- Delivered presentations and engaged with stakeholders at the Stone Barns-Columbia Climate School Partners Workshops in NY in 2024 and 2025.
- Delivered a presentation and engaged with the broader research community from the Northeast at the Hudson Carbon Workshop in NY in 2025.

- Contributed to the preparation of materials and engaged with NGO representatives, research groups, and policymakers at NFWF's Grassland Carbon Monitoring Workshop in Washington DC in 2024.
- Contributed to the preparation of materials, delivered a presentation, and engaged with stakeholders at the Regenerative Ranching Workshop in Colorado, hosted by the Woodwell Climate Research Center in 2023.

MEDIA COVERAGE

- *What Does It Mean For Soil to Be Healthy?* Covered by Columbia Research. https://research.columbia.edu/researcher-of-the-month
- *Soil, Science, and Sustainability.* Covered by Columbia's School of Professional Studies News. https://sps.columbia.edu/news/soil-science-and-sustainability
- *Columbia Climate School's Seed Grants Advance Interdisciplinary Research*. Covered by Columbia Climate School's State of the Planet News. https://news.climate.columbia.edu/2025/04/18/columbia-climate-schools-seed-grants-advance-interdisciplinary-research/
- *Agricultural management practices evaluated in new nitrous oxide accounting Method*. Covered by University of Illinois at Urbana-Champaign ACES News. https://aces.illinois.edu/news/agricultural-management-practices-evaluated-new-nitrous-oxide-accounting-method
- *Climate scientists and cattle ranchers meet at High Lonesome Ranch.* Covered by Woodwell Climate Research Center. https://www.woodwellclimate.org/climate-cattle-ranchers-regenerative-agriculture-workshop/
- *Digging into rangeland soil carbon storage with Woodwell's scientists.* Covered by Woodwell Climate Research Center. https://www.woodwellclimate.org/rangeland-soil-carbon-storage-field-research/
- *CSU soil scientists tapping rangelands as vast sources for carbon storage.* Covered by Colorado State University. https://agsci.source.colostate.edu/csu-soil-scientists-tapping-rangelands-as-vast-sources-for-carbon-storage/
- *Greenhouse gas data deep dive reaches new level of 'reasonable and true'*. Covered by University of Illinois at Urbana-Champaign ACES News. https://aces.illinois.edu/news/greenhouse-gas-data-deep-dive-reaches-new-level-reasonable-and-true
- *ACES PhD student Yushu Xia builds connections with French soil scientists towards managing nitrogen*. Covered by University of Illinois at Urbana-Champaign ACES News. https://aces.illinois.edu/news/aces-phd-student-yushu-xia-