



FY24 Q1-Q2 ACCOMPLISHMENTS



EMBRACING PROJECT-BASED LEARNING IN CLIMATE SCIENCE

Inspiring the next generation of leaders

Agriculture’s future is sitting in K-12 classrooms today! To tackle complex food and agroecosystem challenges and opportunities, we need to inspire the next generation of diverse, creative, eager, and informed scientists, research associates, technicians and occupational professionals.

So, the Northern Plains Climate Hub’s Science Communication and Outreach Fellow Averii Reynolds organized curriculum around strengthening the sustainability of Colorado agriculture in a changing climate. On this theme, a team of 40 ARS employees led multiple day-long, climate-themed workshops at USDA ARS in Fort Collins, Colorado, for 190 high-school students and 20 adults from the STEAD School in Commerce City. Students engaged in hands-on curriculum to learn about climate-smart advances in water, soils, crops, grasslands, genetics and beef production in northern Colorado’s Front Range. Memorable student feedback included “I could work here!” and “Science is cool!”

PARTNERING TO SHARE SCIENCE, RESOURCES AND INFORMATION

What does it take to deliver climate data, tools, and information to 15 remote counties in Montana?

To reach 375 farmers and ranchers who manage dozens of crops and more than 28,000 head of cattle across 15 counties in rural Montana, NPCH Ag Risk Fellow Lee Schmelzer put his 25 years of experience to work. Over two weeks, Lee put in 1,456 miles, dodged cows in the middle of the road on moonlit nights, and fixed two flat tires. Even with all of these obstacles, Lee and his sense of humor, in partnership with the NPCH and NIFA, gave a series of presentations about data, tools, and information related to extreme weather and risk management. Among workshop participants, 99% reported learning something of value and 87% agreed they would use something they learned from the presentations on their operations.



NRCS Montana



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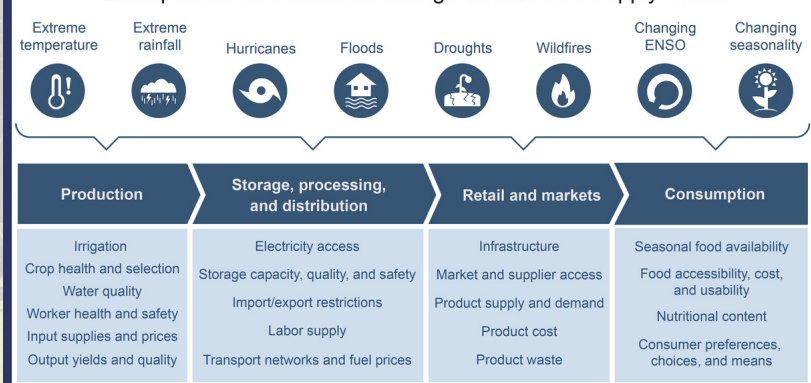


Jeff Morisette
Collaborator, FS
Human Dimensions

Fifth National Climate Assessment

NPCH Co-Authored Chapter on Agriculture, Food Systems, and Rural Communities

Example Effects of Climate Change on the Food Supply Chain



NCA5 Figure 11.10. Extreme events fueled by climate change can impact each stage of the food supply chain, which has compounding effects on the food system. This figure was adapted with permission from David et al. 2021.

The Fifth National Climate Assessment (NCA5) was released November 2023 and public interest remains high. In response, the Northern Plains Climate Hub engaged in several outreach activities as a co-author on NCA5 Chapter 11: Agriculture, Food Systems, and Rural Communities, including an invited panel session, [webinar](#), [article](#), and [podcast](#). NPCH Director Dannele Peck synthesized information about economic impacts of climate change on food systems, including disproportionate impacts on

food security for some low-wealth communities, women, children, older adults, farmworkers, and subsistence-based peoples. These contributions to the NCA5 improve accessibility for the general public to the latest science on both projected and observed climate change impacts. The NCA5 is available at <https://nca2023.globalchange.gov/>.

ADDRESSING CLIMATE CHALLENGES WITH SCIENCE-BASED TOOLS

Climate Hub Tools

Director Dannele Peck presented "USDA Climate Hub Ag Tools" and shared the NIFA-funded Native Climate project at USDOJ Bureau of Indian Affairs Great Plains and Rocky Mountain Regions Joint Agriculture and Range Conference.

WY Conditions and Outlooks

Coordinator Windy Kelley led the Wyoming Conditions Monitoring Team to host [webinars](#) in January, February, and March which share current water conditions, weather forecasts, and climate-related information with the public.

Adaptive Reforestation

FS Fellow Katie Nigro presented a seminar on assisted migration and climate-adaptive reforestation to the Rocky Mountain Research Station. Katie also advised National Forest silviculturists on Region 2's Reforestation Implementation Plan.

By delivering 41 presentations, webinars, and workshops...



and creating 12 publications, white-papers and curricula...

the NPCH reached at least 2,811 people in Q1-Q2!



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