

USDA Climate Hubs Mission Area Highlights

Farm Production and Conservation

FY23 Q1



Climate-smart agriculture

Farmers in the Northeast are increasingly installing irrigation systems on their farms to deal with inconsistent summer precipitation patterns. However, many farmers lack experience with irrigation and require information about how to make their systems most water efficient. In collaboration with the Northeast Climate Hub, researchers at the University of Maine and University of Vermont created [factsheets describing the use of soil moisture meters](#). These factsheets will increase farmer awareness of soil moisture meters for implementing efficient, water-saving irrigation systems.

Drought mitigation

Over the past 20 years, drought has caused millions of dollars' worth of losses to ranching and agriculture in Hawai'i. In October 2022, nearly all land area of the Hawaiian Islands was experiencing some level of short- or long-term drought. To improve collaboration with [U.S. Drought Monitor](#) authors and increase support for impacts reporting, the Southwest Climate Hub partnered with the National Drought Mitigation Center (NDMC) to hold four workshops on each of the four largest islands reaching 120 people. As a result of the workshops the Hub and the NDMC have a better understanding of drought information needs in Hawai'i and of ways to improve communication and collaboration.

Climate conversations

The Southern Plains Climate Hub is continuing the "[Climate Conversations](#)" with the Climate Hubs and NRCS. The Hub conducted surveys to gauge climate awareness at five regional meetings of the Oklahoma Association of Conservation Districts. Over 600 participants responded, and survey findings are being shared with Conservation District state-level staff and others. Climate Conversations across the Midwest, Northern Plains, and Southwest Climate Hub regions have reached over 1000 NRCS state and field staff to better understand climate impacts and NRCS agency needs, increase climate literacy, and share place-based climate adaptation options. Through these conversations the NRCS and other USDA workforce will be better equipped to address climate change challenges in their work.



Climate literate workforce

Producers in the southeast U.S. can benefit from updated management guidance based on sound, peer-reviewed science to remain resilient and productive in the face of climate change and variability. The Southeast Climate Hub published three peer-reviewed papers to advance the science around agricultural land management in the Southeast and help producers make climate-informed decisions:

- [Farming with forages can reconnect crop and livestock operations to enhance circularity and foster ecosystem services](#)
[Grass and Forage Science]
- [Soil-test biological activity associates with soil aggregation characteristics under different land uses in North Carolina](#)
[Soil Science of America Journal]
- [Adjusting the N fertilizer factor based on soil health as indicated by soil-test biological activity](#)
[Agricultural & Environmental Letters]

The Northern Plains Climate Hub collaborated with the Office of the Chief Economist, the Economic Research Service, and Forest Service to co-design and co-present a webinar titled [Bringing People onto Climate Science](#) during the final installment in [USDA's Climate, Agriculture, and Forest Science Webinar Series](#). Over 400 USDA staff attended, gaining social science insights about drivers of adoption of climate-smart agriculture practices, and how the impacts of climate change ripple across global markets.

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Looking ahead

New projects and collaborations

- The Foreign Agricultural Service is hiring a Director for the International Climate Hub (ICH) and developing a landing page for the ICH on the USDA Climate Hub website.
- NIFA Hub-Extension projects starting in 2023:
 - The Migrant Clinicians Network and the Caribbean Hub will collaborate in Building Capacity Among Community Health Centers to Address Climate Change's Impacts on Agricultural Workers in Puerto Rico and the Virgin Islands.
- The US Forest Service added support for fellowships at the Regional Climate Hubs, bringing capacity to 20 fellowships in support of research and science translation aligned with the FS and ARS Hubs' mission and those of the FS Research Stations and the National Agroforestry Center where the fellows are located.
- The California Climate Hub is developing the California Reforestation Toolshed, which will be a significant advancement to the [reforestation resources](#) currently hosted by the Regional Hub.

Upcoming meetings

- USDA Climate Hub Directors Forum, March 30–31, Washington DC.
- 2023 All Authors Meeting for the Fifth National Climate Assessment, April 3–5, Washington DC.
- Alaska Natives in Prince William Sound and the Kenai Peninsula Webinar, April 19, virtual.
- Pacific Northwest Drought Early Warning System: April Drought & Climate Outlook, April 24, virtual.
- In May, the Northwest Climate Hub is hosting a [workshop](#) to promote shared learning around selection of plant materials for climate-informed reforestation.
- NRCS Climate Hub Co-Lead meeting in person in Burlington, VT, May 8–12.

By the numbers

The USDA Climate Hubs

- 10 Regional Directors,
- 20 Regional Co Leads,
- 10 Regional Coordinators,
- 1 Regional Tribal Coordinator,
- 3 agency liaisons,
- 25 research and other staff,
- 1 National Coordinator, and
- 1 National Lead.

Engagements

In Q1, the Hubs hosted, participated in, or led

- 62 workshops and webinars
- 6,028 participants
- 72 presentations

Publications

The Hubs published 52 products in the first quarter, including

- 11 peer reviewed publications
- 41 white papers or grey literature

Website and social media

- 18,933 website users
- 16,345 sessions in the third quarter,
- Twitter account featured 19,115 impressions, demonstrating increasing social media engagement.

USDA Climate Hubs

Building climate resilience and supporting equity by co-developing research, tools, outreach, and engagement with natural resource and agricultural managers.

National Lead: William Gould
william.a.gould@usda.gov

National Coordinator: Julian Reyes
julian.reyes@usda.gov

Northeast Hub Director: Lindsey Rustad
lindsey.rustad@usda.gov

Southeast Hub Director: Steve McNulty
steven.mcnuilty@usda.gov

Caribbean Hub Director: Nora Alvarez Berrios
nora.l.alvarez-berrios@usda.gov

Northern Forests Hub Director: Maria Janowiak
maria.janowiak@usda.gov

Midwest Hub Director: Dennis Todey
dennis.todey@usda.gov

Southern Plains Hub Director: Andres Cibils
andres.cibils@usda.gov

Northern Plains Hub Director: Dannele Peck
dannele.peck@usda.gov

Northwest Hub Director: Jessica Halofsky
jessica.halofsky@usda.gov

Southwest Hub Director: Emile Elias
emile.elias@usda.gov

California Hub Director: Steve Ostoja
steven.ostoja@usda.gov

