USDA Climate Hubs Mission Area Highlights

Research, Education, and Economics

FY23 Q2





Caribbean Drought Learning Network

You might imagine the Caribbean as a region of lush green islands, palm trees and abundant rainfall throughout the year. However, drought is a recurring issue in the region. Due to local agriculture's heavy reliance on rainfall and limited water storage capacity, drought can quickly affect the agricultural sector and quality of life. The Caribbean Climate Hub continues it work with partners to support the Caribbean Drought Learning Network; a peer-to-peer network designed for information exchange about Caribbean drought. Together they published, Fostering knowledge-exchange and collaboration among drought-related initiatives in the Caribbean in the Bulletin of the American Meteorological Society. This publication gives highlights of the outcomes of the Network's first annual meeting last fall and Increased knowledge-sharing and awareness of Caribbean drought research, needs, and initiatives.





Inter-regional efforts

Climate change is increasing global temperatures, altering precipitation patterns, and affecting growing seasons. It also affects the character of drought. But current methods for assessing drought conditions do not account for climate change. To address this issue, the USDA Climate Hubs and National Integrated Drought Information System co-hosted a technical working meeting that brought together 110 experts and practitioners from a variety of federal, state, tribal agencies and organizations to identify approaches to incorporate changes in climate into drought assessment. This meeting identified immediate actions, long-term recommendations, and outstanding research questions to advance the science and knowledge of drought assessment in a changing climate.

Improved access to water scarcity solutions

For decades, scientists, Extension, Tribes, government agencies, and individuals have sought solutions to water scarcity in the southwest. Yet there is no central location for archiving these efforts and making the information more accessible. Therefore, the Southwest Climate Hub has been developing a <u>Water Adaptation Techniques Atlas (WATA)</u> which compiles information about responses to southwestern water scarcity, presented in the form of case studies. This quarter, the Hub presented WATA on the February NIFA Tribal Programs meeting, highlighting projects that combine restoration of ecologically and culturally important riparian habitats with aquifer recharge, and solar powered desalination for brackish groundwater on the Navajo Nation. The Hub also presented on WATA to the Southwest Watershed Research Center (AZ).

Climate-informed action

Producers in the southeast US need support and assistance based on sound, peer-reviewed science to remain resilient and productive in the face of climate change and variability. As risks increase and threats arise, new guidance must be developed to help producers make climate-informed decisions. Therefore, the USDA Southeast Climate Hub published two peer-reviewed papers to advance the science around sound agricultural land management in the Southeast.

- Soil fertility characteristics in North Carolina pastures as affected by spatial separation and renovation with annual forages
- <u>Soil organic carbon and nitrogen storage estimated with the root-zone enrichment method under conventional and conservation land management across North Carolina.</u>

USDA Climate Hubs Mission Area Highlights

Research, Education, and Economics

FY23 Q2





Looking ahead

New projects, collaborations and upcoming meetings

- In June 2023 we celebrate the 10 year anniversary of the Secretary of Agriculture's announcement of the establishment of the Climate Hubs Program.
- The International Climate Hub joins USDA Regional Climate Hubs to share
 research, tools, collaborative efforts, and best practices on a global scale to
 improve the world's ability to adapt to climate change and mitigate its
 impacts.
- NIFA announced a \$9M investment in the 2022 awardees for the Extension, <u>Education and USDA Climate Hubs Partnerships</u>. Seven of the regional hubs will partner with six projects led by American Farmland Trust, Clemson University, the Migrant Clinicians Network, Purdue University, Texas A&M AgriLife Research, and Washington State University.

Top pick

Now that the <u>International Climate Hub</u> has its own home alongside the Regional Hubs on the USDA Climate Hubs website, there is a great opportunity to share <u>research</u> and <u>tools</u> developed by USDA scientists with our international partners.

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
- 1 National Lead

Engagements

In QR2, the Hubs hosted, participated in, or led

- 85 workshops and webinars
- 14,213 stakeholders engaged
- 54 presentations

Publications

The Hubs published 75 products in the second quarter, including

- 14 peer reviewed publications
- 61 white papers or grey literature

Website and social media

- 107,779 website users
- 192,736 pageviews
- 21,498 Twitter impressions,

USDA Climate Hubs

Northwest Hub

Northwest Hub

Northwest Hub

Northwest Hub

Southwest Hub

Southw

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

Acting National Coordinator: Holly Prendeville

climatehubs@usda.gov

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

Southeast Hub Director: Steve McNulty steven.mcnulty@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