USDA Climate Hubs Mission Area Highlights

Research, Education, and Economics



Climate adaptation and resilience

California producers are in need of information and resources to support and guide management decisions in the face of increasingly variable weather and a changing climate. In response, the California Climate Hub partnered with scientists at University of California Agriculture and Natural Resouces and University of California Merced to develop a one-stop-shop of web-based decision support tools and informational resources. Called <u>"CalAgroClimate"</u> the website was publicly launched in November 2022 and has garnered positive feedback from users. With plans to expand its scope and reach, CalAgroClimate will serve as a much needed resource for California producers moving forward.



Drought Learning Networks

Addressing drought continues to be a priority across many regions and agencies. Peer to peer learning supported by the Hubs through the <u>Southwest</u> and <u>Caribbean</u> <u>Drought Learning Networks</u> and other interagency activities helps bridge the sciencepractitioner gap in climate service delivery.



As 2022 came to a close, the U.S. Drought Monitor showed much of Wyoming still in drought, nearly 2.5 years after first emerging. Half of the state is in moderate to extreme drought (D1-D3), and another guarter is abnormally dry. As this multi-year drought stretches on, the public needs updated information about conditions, impacts, and resources. Therefore, in FY23 Q1, the Northern Plains Hub met with the Wyoming Association of Rural Water Systems,- and organized two webinars for the Wyoming Conditions Monitoring Team-reaching 120 participants, and attracting 50 views of the recorded presentations.

From fall 2019 to the present, portions of the Northwest Climate Hub region have been experiencing abnormally dry to exceptional drought conditions. To keep people informed on current conditions and short-term outlooks, the Northwest Climate Hub co-hosted the Pacific Northwest Drought Early Warning webinar series with the National Integrated Drought Information System. This series of regular drought and climate outlook webinars designed to provide timely, regional information on current drought status and impacts, preview of current and developing climatic events and hear from two specialty topic speakers.

Science and data synthesis

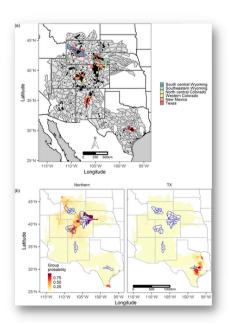
FY23 O1

Climate

Climate change is likely to bring an expanded range of vector-borne livestock diseases such as Vesicular stomatitis (VS). The Southwest Climate Hub provided geospatial analyses to better understand how climate, landscape, and other factors might affect the distribution of livestock vector disease in a peer-reviewed paper in Ecosphere. The authors found that hotspots of monthly VS concentrations were closer to flowing water and agricultural land across the western United States. These results can inform early warning and mitigation

efforts to reduce the incidence of

VS.



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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 <u>reforestation resources</u> 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 <u>workshop</u> 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

FY23 O1

Climate

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 QR1, 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.

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