USDA Climate Hubs Mission Area Highlights

Research, Education, and Economics



Climate smart agriculture and forestry

Interest in agroforestry as a climate adaptation and mitigation practice is increasing among landowners in the Northeast. Once trees are planted on working lands, their maintenance becomes a new management challenge. Many new agroforesters find they are lacking information about appropriate care for their agroforestry systems. As part of the Climate Learning Forum project, the Northeast Climate Hub is hosting a series of "Healthy Trees" working groups to provide information and support to land managers who have recently added trees to their land.

Forest threat fact sheets

Forest landowners and managers in the southeast benefit from guidance based on peer-reviewed science to remain resilient and productive in the face of climate change and variability. As risks increase and emerging threats arise, guidance is developed and shared to help producers make climate-informed decisions. Therefore, the Southeast Climate Hub worked with state forest health managers in Florida and Louisiana to co-produce state-specific emerging forest threats facts sheets. These fact sheets educate forest landowners about threats their forests may encounter and provide management practices to maximize resilience and productivity in a changing climate

Science and data synthesis

The Southwest Climate Hub published three peerreviewed journal papers this quarter. Two highlighted the history of important Hub collaborations: the Drought Learning Network and the Water Research Vision. The third was produced in partnership with the Southern Plains Hub and the Southwest Sustainable Beef project and focused on resource use by Criollo cattle (a breed touted as better adapted to the Southwest environment).

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Agriculture adaptation for high school students

Earth Day is often celebrated with creative ways for the public to engage in conservation and stewardship issues. In many states, <u>Envirothon</u>® is hosted on Earth Day, providing an environmental and natural resource conservation problem-solving, team-building, and leadership experience and competition for high school students across the United States, and beyond. In Montana, the Northern Plains Climate Hub collaborated with Cascade County Conservation District and Montana State University Extension to co-develop a presentation on how agriculture in the state is adapting to climate change. This information reached 115 high school student and teacher participants at Montana's successful 2023 Envirothon® event.

Bilingual K-12 climate education

Climate education at all ages is a critical agent in addressing climate change. Teaching young people about protecting the planet in a playful and solutions focused way can help them feel empowered to make a difference. The Caribbean Climate Hub and Atencion Atencion Foundation have worked together to create three bilingual web-based learning modules for kids about climate, forests, and agriculture. The modules include videos, activities, and exercises for better understanding and learning. The platform hosting the modules is freely accessible and currently used by 70,000 children ages 3-8 and nearly 7000 educators in Puerto Rico, Colombia and United States.



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Recently funded NIFA projects

USDA National Institute of Food and Agriculture <u>funded \$10M in projects</u> via the Extension, Education and USDA Climate Hubs Partnership program area priority. These projects provide effective and translatable approaches to address climate change through regional partnerships with the USDA Climate Hubs and Extension. The projects funded this year will focus on specialty crops across the nation, reducing impacts on agricultural workers in the Caribbean, advancing water resilient strategies along the Pacific coast, climate tools and capacity building in the Midwest, peer-to-peer learning for producers in the Northeast and Midwest, promoting climate smart forestry in the Southeast and supporting climate-smart practices for livestock production in the Southern Plains.

Looking ahead

New projects, collaborations and upcoming meetings

- The Caribbean Climate Hub provided three orientations with USDA agencies, Extension, Conservation Districts, and Climate-Smart Commodities Partners focused on agroforestry, coffee, and vegetables. Farmers-to-farmers presentations highlighted challenges and solutions amid climate change. Registration is now open for the next workshop on September 15th.
- The Midwest Hub is partnering with the University of Illinois to develop a climate training course for Illinois Extension specialists. Expected launch is fall 2023.

By the numbers

The USDA Climate Hubs

- National Office
 - 1 Lead
 - 1 Coordinator
 - Supported by 3 agency liaisons

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Climate

- Regional Climate Hubs
 - 10 Directors
 - 27 Co Leads
 - 10 Coordinators
 - 1 Tribal Coordinator
 - 17 Fellows
 - 8 Interns
- 44 research and other staff
- International Climate Hub
 - 1 Director
 - 1 Coordinator

Engagements

- In QR3, the Hubs hosted, participated in, or led
- 75 workshops and webinars
- 4,937 stakeholders engaged

Publications [PDF, 5 pages]

The Hubs published 62 products in the third quarter

- 10 peer reviewed publications
- 52 white papers or grey literature



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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