Supporting the Natural Resources Conservation Service

USDA CLIMATE HUBS

PURPOSE

The Climate Hubs reduce climate related risks to agriculture, forestry, and rural communities by working with and through USDA agencies and partners. The Hubs develop and deliver science-driven strategies and tools so USDA programs, advisors, and land managers can make informed decisions to manage risk.

OUTCOME

Agencies and stakeholders have the region-specific information to provide advice on managing and reducing climate related risks so that farmers, ranchers,, and forest managers adopt practices which maintain production while conserving soil, water, and other natural resources.

Enhancing NRCS Partnerships

- The Hubs are a framework for connecting a wide range of USDA partners on climate variability issues including drought, excess rainfall, soil and streams management, and carbon issues.
- Increased cooperation across USDA agencies has resulted in greater understanding of NRCS mission and programs by other agencies. The Hubs highlight the technical and financial benefits of NRCS' voluntary conservation programs so that increased information is reaching stakeholders such as extension agents and crop advisors.
- The Hubs help link NRCS staff with other Federal initiatives including DOI Regional Climate Science Centers and Landscape Conservation Cooperatives, and NOAA Regional Climate Centers and RISAs. The Hubs present NRCS and USDA perspectives on managed lands, reducing overlap and increasing efficiency among government agencies. The Hubs partner with NOAA and State Agencies to provide region-specific drought information, webinars, and public forums for land managers.

Enhancing Partnerships

Expanding NRCS Program Delivery

Investing in NRCS Priorities

Connecting science and program agencies

Expanding NRCS Program Delivery

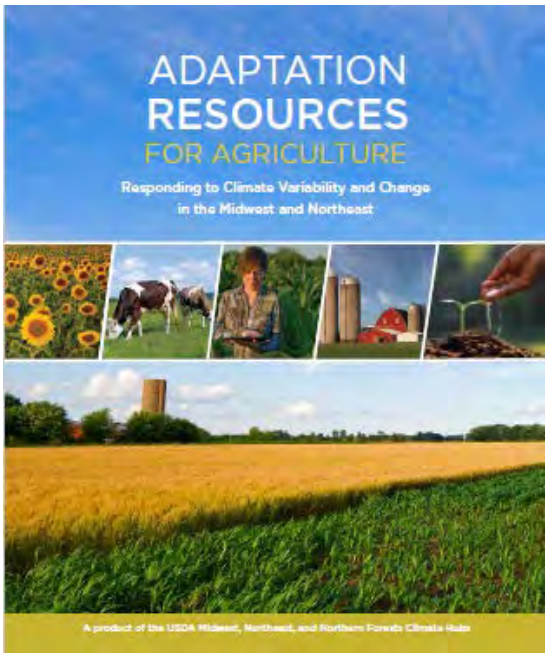
- Sound conservation practices such as reduced tillage, cover crops, or buffers all increase resiliency to extreme weather. The Hubs are strong advocates for these programs and work to develop new climate-related tools that support the NRCS mission.
- The Hubs span research and management communities. They direct management needs to science providers, translate science, shorten the time for research to be applied, monitor whether science applications are useful, feed information back to science providers, and improve technology transfer.
- Hub regional vulnerability assessments assist NRCS in targeting vulnerable natural resources through programs. Understanding how natural resource conditions on working lands are affected by the changing climate is essential to improve the performance of programs that conserve the land.
- The Hubs have expanded NRCS outreach to the public through more effective and efficient delivery of research to end users. Hub adaptation demonstration projects serve as concrete responses to real-world agricultural climate management issues.
- The Hubs gather information for the National Climate Assessment to understand regional issues and inform management decisions on farms, ranches, and forests affected by a changing climate.

https://www.climatehubs.oce.usda.gov/

USDA CLIMATE HUBS

Case Studies

Adaptation Resources for Agriculture



(https://adaptationworkbook.org/)

- The Adaptation Resources for Agriculture Workbook was jointly developed by Climate Hub Staff and NRCS to support producers, service providers, and educators in the Midwest and Northeast Regions to manage climate change.
- The Workbook helps producers consider both short-term adaptive management actions (< 5 years) and long-range strategic plans (5 to ~20 years, subject to farm type)
- Promotes adaptation through multiple resources, including: A "menu" of many adaptation strategies and approaches and example tactics for row cropping and forages, confined livestock, grazing, orchards, and small fruit and vegetable production systems.
- Provides examples where climate change has been considered in real-world agricultural situations.

Maintaining Southern Plains Productivity

- Producers in Kansas, Oklahoma, and Texas are benefitting from a broad collaboration of universities and USDA agencies, facilitated by the Southern Plains Climate Hub, who are focused on ensuring profitability and productivity while coping with extreme weather and climate impacts
- The Southern Plains Hub and its partners are developing best management practices for soil health that are applicable to producers across the region. Specific approaches include the establishment of demonstration farms on university and Tribal lands, producer field days and seminars focused on implementation of conservation practices, and new soil health curricula for the next generation of producers.
- NRCS is an active participant with the Climate Hub in developing and disseminating soil health information and resources across the Southern Plains region.

Conclusion

USDA's Climate Hubs allow NRCS to expand its reach through new regional partnerships and enhanced stakeholder engagement. The Hubs communicate climate information to regional audiences in partnership with NRCS field staff, increasing mission delivery efficiency within USDA.

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