



SUPPORTING THE FARM SERVICE AGENCY

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 that USDA programs, advisors, and land managers can make informed decisions to manage risk.

OUTCOME

Through well-informed decision making, working lands will be better managed to sustain economically viable agricultural production, promote water quality, conserve surface and groundwater supplies, reduce erosion, and enhance wildlife habitat

FARM SERVICE AGENCY BENEFITS

- The Hubs support the Farm Service Agency's strategic goals of (i) sustaining economically viable agricultural production, and (ii) increasing stewardship of America's natural resources while enhancing the environment.
- The FSA recognize several external stressors that may affect these goals, including "widespread or prolonged natural disasters and animal, plant pest, and human disease outbreaks" [FSA Strategic Plan, FY2016-18 Update]. Short-term climate variability and long-term climate change increase the exposure of farming and ranching systems to external stressors.
- Outreach and education for land managers on ways to adapt to climate-related risks, and increase long-term working land sustainability and output. Adaptation resources provide information on identifying and assessing climate change impacts, challenges, opportunities, and appropriate responses.

Communicating climate-related risks

Outreach and education

Technical support

Collaborative research

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

SUPPORTING FSA STRATEGIC GOALS

- Regional assessments of climate impacts on agricultural and forestry systems to identify future risks from climate change. Understanding the degree and extent of future risk is essential for informing program response and environmental stewardship plans.
- Outreach and education on research and monitoring efforts that address current issues such as drought and examining climate projects to determine new crops and varieties to plant.
- Digestible summaries of important information targeted at specific locales / commodities e.g., climate risks in the northeast, benefits of cover crops, agricultural pests, specialty and field crops)
- Technical support for land managers to prepare for and respond to drought, heat stress, floods, pests, diseases, and variability in growing seasons. (NE)
- Contributing to the National Climate Assessment to increase the wider communication of climate risks to agriculture.
- Assessment of FSA employee climate and weather data use and needs, climate change perceptions, and role of climate and weather data in service provision via national survey to over 4,000 FSA field staff

Collaborative Tool Development



- When forage is impacted by drought conditions, the FSA allows producers to use Conservation Reserve Program (CRP) acres. The Northern Plains Hub are collaborating with FSA to discover if CRP Emergency Haying & Grazing as a form of “grass-banking” could enhance livestock producers’ drought resilience.
- Alaska is experiencing rapid climate change. As temperatures warm and the climate becomes increasingly suitable for cropland agriculture, producers need to know where to procure the optimal crop varieties for their area. The Northwest Hub and FSA are exploring the potential of the NW Hub’s Seedlot Selection Tool for identifying areas in Canada and continental US that have similar climates to determine which crop varieties that are most likely to succeed in crop trials for Alaska.
- Using native plant material in conservation, restoration and land management supports healthy and resilient ecosystems. The Northwest Hub is working with FSA and RMA to determine which existing programs can provide crop insurance for native seed producers to assist producers during extreme weather events and increase production to meet the demand for native seed.

Managing Drought Risks



- The U.S. Drought Monitor (USDM) is used to inform decision-making in several USDA Disaster Assistance Programs. As a regional product, the USDM is best used in tandem with local scale data about drought impacted areas. The Southwest Hub has been partnering with local FSA and New Mexico State University to bring information to FSA clients about the USDM, and the value of voluntary precipitation monitoring and drought impact reporting through the Community Collaborative Rain Hail and Snow (CoCoRAHS) program.
- The Caribbean Hub have been working with FSA to identify farmlands and crops that have been frequently exposed to recent drought conditions in Puerto Rico and to identify areas that will be particularly vulnerable to future droughts. This information highlights focal points for the future allocation of USDA investments that are intended for the mitigation of drought impacts. The Caribbean Hub are also using data on FSA damage payments to assess the relationship between the occurrence and severity of drought and losses in livestock and grazing, and to evaluate the relationship between damage costs and the application of USDA programs that are designed to minimize the risk of drought on livestock and grazing operations.

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