



## FACT SHEET

# CLIMATE CHANGE

Farmers, ranchers and landowners are facing one of the most pressing issues in food and fiber production: a rapidly changing climate. Extreme weather events involving temperature, rain, wind, and fire are occurring more frequently and with greater intensity every year. To accommodate changing growing conditions, producers and landowners need the best available science to plan for and implement climate-adapted production practices.

USDA's National Institute of Food and Agriculture (NIFA) funds research, extension, and education for climate resilience in three mission-critical areas: adaptation; mitigation; and education and workforce development. Within these areas, research efforts develop new knowledge, tools, and techniques; Extension efforts transfer new knowledge that producers and landowners can use; and education programs incorporate new knowledge in classrooms to train the next generation of producers, industry professionals and scientists.

## CLIMATE CHANGE PRIORITIES

- **Adaptation** – Aims to maximize resiliency and reduce the impact of climate variability and change on the stability and productivity of agriculture and forest ecosystems by providing the best available science to support producer decision-making.
- **Mitigation** – Aims to reduce atmospheric greenhouse gas emissions from agriculture and forest ecosystems while optimizing carbon sequestration potential on the nation's working lands. The potential exists for producers to benefit from climate-smart commodities and other ecosystem service market benefits.
- **Education and Workforce Development** – Aims to increase agricultural scientists, educators and Extension professionals in the workforce who have the skills and knowledge to address climate variability and change, its impacts on agriculture and forest ecosystems, and options for sustainable food production and environmental stewardship.

## CLIMATE SCIENCE FUNDING

**Capacity funds** are provided to eligible institutions to support an institution's basic capacity to carry out programs and to provide the flexibility to address specific stakeholder needs. Eligible institutions receive these funds based on a statutory formula. Eligibility is limited, in most cases, to 1862, 1890 and 1994 Land-grant Institutions.

**Competitive funds** are awarded to the most innovative, cutting-edge science projects to help significantly expand new knowledge and innovation. Institutions, organizations, and agencies eligible to apply for funding are listed in Requests for Applications posted on the NIFA website.

## LEARN MORE & APPLY FOR FUNDING

Learn more about our work and funding opportunities, visit [nifa.usda.gov/program/climate-change-programs](https://nifa.usda.gov/program/climate-change-programs).