



BACKGROUND

This AFRI Challenge Area focuses on the priority to mitigate and adapt to climate change. It supports activities that reduce greenhouse gas emissions, increase carbon sequestration in agricultural and forest production systems, and prepare the Nation's agriculture and forests to adapt to changing climates. The long-term outcome for this program is to reduce the use of energy, nitrogen fertilizer, and water by ten percent and increase carbon sequestration by fifteen percent through resilient agriculture and forest production systems under changing climates. In FY 2010, approximately \$55 million is available to support the Climate Change Challenge Area within AFRI.

PROGRAM AREA PRIORITIES

Regional Approaches to Climate Change

Develop a Regional Integrated Coordinated Agricultural Project that demonstrates a well developed plan that addresses the mitigation, adaptation, education, and extension goals within a region defined by climate variables. Integrated Coordinated Agricultural Projects up to \$4M per year (\$20M total) for up to 5 years. Contact: Michael Bowers

Regional Approaches to Climate Change: Planning

Planning/Coordination Grants will be considered for projects that focus on developing a Regional Integrated Coordinated Agricultural Project focusing on mitigation, adaptation, education, and extension in the areas designated for FY 2011. Integrated Projects for up to \$50K total for 1 year. Contact Michael Bowers

Impacts of Climate Change on Animal Health and Production

Discover new mechanistic knowledge that will contribute to future mitigation and adaptation strategies for swine and/or poultry: emergence of new high impact diseases/high impact strains; animal physiology, including muscle biology, adipocyte biology, lactation, or metabolism; or regulation of appetite and feed intake. Research Projects up to \$500K per year (\$2.5M total) for up to 5 years. Contact Adele Turzillo

National Cereal Germplasm Phenotyping

Phenotype the collections of the USDA National Plant Germplasm System and advanced germplasm in public breeding programs to advance knowledge of traits conferring host-plant resistance to temperature extremes, drought, pests, diseases, or invasive species through classical/conventional breeding and other appropriate approaches and train the next generation of contemporary plant breeders in both laboratory molecular methods and field-based breeding practice. Integrated Coordinated Agricultural Projects for up to \$5M per year (\$25M total) for up to 5 years. Contact Ed Kaleikau

Climate Change Mitigation and Adaptation in Agriculture

Demonstrate a well developed plan that addresses the mitigation, adaptation, education, and extension goals for the FY 2010 plant and animal production systems. Research, Education, Extension, or Integrated Projects up to \$1M per year (\$5M total) for up to 5 years. Contact Ray Knighton

FY 2010 Priority Focus

Cropping systems: cereal production systems
Animal systems: swine or poultry production systems
Forest systems: southern conifers

PROGRAM AREA CONTACTS

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PROGRAM AREA DEADLINE DATES

PROGRAM AREA	LETTER OF INTENT DEADLINE	APPLICATION DEADLINE
Regional Approaches to Climate Change	May 7, 2010	July 16, 2010
Regional Approaches to Climate Change: Planning	n/a	May 14, 2010
National Cereal Germplasm Phenotyping	May 7, 2010	July 16, 2010
Impacts of Climate Change on Animal Health and Production	April 30, 2010	July 2, 2010
Climate Change Mitigation and Adaptation in Agriculture	April 30, 2010	July 2, 2010