

USDA Agriculture and Food Research Initiative (AFRI).

The Agriculture and Food Research Initiative (AFRI) is the National Institute of Food and Agriculture's (USDA-NIFA) flagship, extramural competitive grants program. AFRI supports research, education and extension in areas including Sustainable Bioenergy and Climate Change.

Proposals Involving the University of Idaho.

The University of Idaho partnered with other northwest universities on six major research proposals (4 funded, 2 pending) totaling \$124.6 million, under the Sustainable Bioenergy, Climate Change and Ag Systems and Technology RFAs. The projects will have lasting impact on economy, communities and environment, regionally and beyond.

Funded:

Regional Approaches to Climate Change for Pacific Northwest Agriculture (REACCH). Funded the fall of 2010 for \$20 million over 5 years. University of Idaho is the lead institution partnering with Oregon State University and Washington State University. The overall goal is to ensure the long-term viability of cereal-based farming in the inland Northwest by identifying farming practices that curb climate change. A one year report and fact sheet are available.

Northwest Advanced Renewables Alliance (NARA).

Funded the spring of 2010 for \$40 million over 5 years. Washington State University is the lead institution and the University of Idaho is partnering on education for K-12 and technology transfer to industry. With oil refining and distribution assets, a high need for military and commercial aviation fuels, and abundant woody biomass currently at scale, our region is well positioned to deliver bio-based aviation fuels and chemicals within 5-years.

Site-Specific Climate Friendly Farming (SCF).

Funded in the spring of 2011 for \$4.6 million over 5 years. Washington State University is the lead institution and the University of Idaho is partnering to provide remote sensing and LiDAR technology. Site-specific nitrogen (N) management has the potential to mitigate climate change by reducing agricultural N2O greenhouse gas emissions. This project helps growers adapt to impending climate change by developing a decision support system to scientifically manage cropping practices and N applications for maximum profit and minimum N loss to greenhouse gas release and soil leaching.



Advanced Biofuels Production from Woody Biomass in The Pacific Northwest, Research on sustainably grown woody energy crops to produce bio-gasoline and renewable aviation fuel.

Funded the fall of 2011 for \$40 million over 5 years. University of Washington is the lead institution and the University of Idaho is partnering to provide liquid fuels research, outreach to K-12 and industry technology transfer. The overall goal is to prepare the Pacific Northwest for a 2015 introduction of a 100% infrastructure compatible biofuels industry that meets the region's pro-rata share of RFS2 targets using sustainable and regionally appropriate woody energy crops. A new, advanced and sustainable, poplar-based, biofuels industry will support a region of large and small forest growers and bring jobs to rural communities.

Pending:

Western Conifer Forest Systems: Strategies for climate change adaptation and mitigation. Submitted the fall of 2011 requesting \$10 million over 5 years. Oregon State University is the lead institution and the University of Idaho is one of ten partners from the United States and Canada. The approach is to provide owners, managers and policy-makers with tools and strategies to mitigate and adapt to climate change in western forests.

Program for Research and Extension that Promotes the Adaptation of Ruminant Enterprises (PREPARE): Mitigation and Resilience in the Face of Climate Change.

Submitted early 2012 requesting \$10 million over 5 years. Washington State University is the

lead institution and the University of Idaho is one of nine university and industry partners. The program would create sustainable ruminant livestock systems in the Northwest by empowering producers to understand, manage and mitigate the changes and variability in climate. The approach links regional climate change scenarios with regional water models and measurement and monitoring programs.