

**Aquaculture - \$410,000**

North Carolina State University

Raleigh, NC 27695

Aquaculture involves the raising of farmed fish and shellfish, and NC State serves as a leader in developing environmentally sustainable practices in the industry. The university has requested federal funding to facilitate research into experimental techniques for farming oysters, breeding of high-demand fish species, and waste and disease management.

Advanced aquaculture promotes economic development by enabling farmers to undertake a new and potentially lucrative form of agriculture and provides an environmental benefit by helping prevent over-fishing and restore depleted fisheries. Supporting this effort is consistent with USDA's missions to protect natural resources and promote agricultural products.

**Beaver Management Assistance Program- \$300,000**

North Carolina Wildlife Resources Commission

North Carolina State University Centennial Campus

1751 Varsity Drive

Raleigh, NC 27606

Beaver activities in North Carolina cause millions of dollars in damage annually due to flooding and destruction of highways and bridges, agriculture and forestlands, drainage systems, railroad trestles, sewer systems, water treatment facilities and other property. The North Carolina Beaver Management Assistance Program (BMAP) was created by the North Carolina General Assembly to address these destructive problems. BMAP is primarily funded by the state government, but also receives some funding from USDA, participating counties, and private landowners who will benefit from the beaver removal.

In 2008, BMAP saved state and municipal governments and landowners approximately \$4.75 million in resources from prevented beaver damage. Supporting this effort is consistent with USDA's missions to protect natural resources, promote sound land management, and promote agricultural products.

### **Crop Pathogen Protections - \$500,000**

North Carolina State University

Raleigh, NC 27695

Introduced pathogens (that is, germs or other agents to which crops are intentionally or accidentally exposed) pose a significant risk to crops, and therefore to the food supply. North Carolina State University is seeking federal funding to support crop pathogen protection research to detect and prevent crop damage from introduced pathogens, including potential weapons of bioterrorism. Much of the research is focused on genomic mapping, which is essential to our ability to respond successfully to an accidental pathogen introduction and to understand the threat of agricultural bioterrorism.

Continuing research on crop pathogens helps protect both consumers' food supply and the viability of a major national economic sector, and it is consistent with USDA's missions to enhance food safety and promote agricultural products.

**Database of North Carolina's Agriculture Industry for Rapid Response - \$300,000**

North Carolina Department of Agriculture and Consumer Services

2 W. Edenton Street

Raleigh, NC 27601

The North Carolina Department of Agriculture and Consumer Services maintains a state-of-the-art emergency response system that can mitigate the impact of animal disease outbreaks, natural disasters, bioterrorism attacks, and other threats to the state's agricultural sector. This funding would support continued development and expansion of the system. The Multi-Hazard Threat Database (MHTD) is a Web-based mapping tool that integrates agricultural production data, topography and water tables, quarantine areas, escape routes and other information critical to emergency response.

The MHTD helps protect both consumers' food supply and the viability of one of North Carolina's most important economic sectors. Supporting this effort is consistent with USDA's missions to enhance food safety and promote agricultural products.

**Food Animal Residue Avoidance Databank (FARAD) - \$2.5 million**

North Carolina State University

Raleigh, NC 27695

The Food Animal Residue Avoidance Databank (FARAD) is a nationwide initiative that provides veterinarians, livestock producers, and state and federal regulatory and extension specialists with access to real-time information about animal drug residues and environmental contamination of livestock. Operated jointly by North Carolina State University, the University of Florida, and the University of California at Davis, FARAD is an integral component of front-line defenses against accidental or deliberate contamination of the human food chain.

Continued funding for FARAD protects both consumers' food supply and the viability of a major national economic sector. Supporting this effort is consistent with USDA's missions to enhance food safety and promote agricultural products.

**Forest Biotechnology – \$500,000**

North Carolina State University

Raleigh, NC 27695

North Carolina State University is seeking federal funding for its Forest Biotechnology Initiative,

which carries out research on making native tree species resistant to invasive pests, improving productivity for timber products, and developing new wood-based biomass technologies for green energy production. This research significantly advances U.S. capacity to deploy sustainable and economical wood-based bio-energy. Renewable sources of energy can reduce our national reliance on foreign oil and clean the planet in the process.

The development of renewable sources of energy and improvement of timber is consistent with USDA's missions to promote agricultural products and sound land management.

### **National Poultry Consortium - \$2.2 million**

North Carolina State University

Raleigh, NC 27695

Primarily due to extreme increases in global demand for feed and fuel, the United States poultry industry is facing a crisis because it may not be able to reliably provide consumers with affordable and safe domestic poultry products. The proposed National Poultry Consortium would consist of the six major poultry research universities in the nation: NC State University, the University of Arkansas, Auburn University, the University of Georgia, Mississippi State University, and Texas A & M University. The consortium would develop poultry science programming that impacts student recruitment, distance education, graduate training, research, and collaborative multi-state extension and outreach. Work by the consortium would help poultry producers improve nutrient management, reduce energy input and carbon and nitrogen footprints, and prevent disease and unsafe food from entering the marketplace. This work would help to ensure the ongoing viability of the U.S. poultry industry and a stable supply of affordable poultry products for U.S. consumers.

The proposed consortium and the advances in poultry production it would allow are consistent with USDA's missions to enhance food safety and promote agricultural products.

**Regional Grains Genotyping - \$400,000**

North Carolina State University

Raleigh, NC 27695

There are four USDA Agricultural Research Service (ARS) Regional Grains Molecular Genotyping Laboratories across the nation, one of which is associated with NC State. This existing ARS unit conducts critical research on oats, wheat, and barley – helping protect these crops from natural or introduced pathogens, enhance their stress tolerance, and improve their end-use quality. The research conducted in Raleigh is focused on small grains grown throughout the eastern United States.

Continued research on regional grains helps protect both consumers' food supply and the viability of a major national economic sector. Supporting this effort is consistent with USDA's missions to enhance food safety and promote agricultural products.

**Swine and Other Animal Waste Management - \$500,000**

North Carolina State University

Raleigh, NC 27695

North Carolina State University is seeking continued federal funding for the work of its Animal and Poultry Waste Management Center. The Center conducts research to identify and develop cost-effective technologies for environmentally sustainable livestock production. The Center is a national leader in unbiased science-based research and education programs for managing livestock waste. The university program also provides assistance for complying with national, state, and local animal production and waste management regulations, including equipment evaluation, system verification, and improved management practices at all levels of the system.

The livestock industry generates over \$900 billion in revenue to the U.S. economy, and maintaining cost-effective means to manage waste and ensure animal health is critical to sustaining its competitiveness. Better research in livestock waste management also would improve public health, benefit the environment, and assist farmers, this initiative is consistent with the USDA's missions to protect natural resources, promote sound land management, and promote agricultural products.

**Technical Assistance to Livestock and Poultry Farmers, State of North Carolina - \$500,000**

USDA/Natural Resource Conservation Service

4001 Cary Drive

Raleigh, NC 27601

Pork producers traditionally have utilized lagoons to manage animal waste, but this practice has significant negative effects on the environment, particularly with respect to groundwater. This funding would enable USDA's Natural Resource Conservation Service, in partnership with the State of North Carolina, to assist farmers seeking to convert open-air waste lagoon operations

to environmentally-sound technologies. The program providing this assistance – primarily funded by the state – was created in 2007 by the North Carolina General Assembly in conjunction with legislation banning lagoons on new or expanding hog farms. The previous moratorium on new lagoon construction was established after lagoons caused major environmental contamination during the flooding associated with Hurricane Floyd in 1998.

The conversion of waste lagoons will improve public health, benefit the environment, assist farmers, and help ensure the long-term sustainability of the U.S. agricultural sector. Supporting this effort is consistent with the USDA's missions to protect natural resources, promote sound land management, and promote agricultural products.

### **Wood Utilization Consortium - \$6.5 million**

North Carolina State University

Raleigh, NC 27695

The Wood Utilization Consortium, a partnership of NC State and nine other universities across the country, conducts research and provides technical and engineering support to help develop wood products. NC State's share of the funding would support the research efforts of the Sustainable Wood Housing Innovations Program (SWHIP). The SWHIP develops methods to make housing more durable, affordable, and resistant to natural disasters as well as enabling manufacturers of housing components to better utilize and conserve wood, a natural resource. The development of better uses of wood products is consistent with USDA's missions to promote agricultural products and sound land management.