

Testimony of  
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**FY 2010 Appropriations for the Department of Agriculture,  
Agriculture and Food Research Initiative**

Submitted to the  
**House Committee on Appropriations**  
**Subcommittee on Agriculture**

**Representative Rosa DeLauro, Chair**  
**Representative Jack Kingston, Ranking Member**

**April 16, 2009**

On behalf of the Federation of American Societies for Experimental Biology (FASEB), **we respectfully request the Agriculture and Food Research Initiative (AFRI) at the United States Department of Agriculture be funded at \$300 million in FY 2010.** FASEB strongly believes we must maintain and magnify the breadth and competitive nature of the agricultural research portfolio, to ensure the United States' economic vitality and the well-being of all Americans.

As a Federation of 22 professional scientific societies, FASEB represents nearly 90,000 life scientists, making us the largest coalition of biomedical research associations in the nation. FASEB's mission is to advance health and welfare by promoting progress and education in biological and biomedical sciences, including the research funded by AFRI, through service to its member societies and collaborative advocacy. FASEB enhances the ability of biomedical and life scientists to improve—through their research—the health, well-being and productivity of all people.

Greater investment in basic and applied agricultural research is essential, as the demand for a safer and more nutritious food supply continues to increase. The Food, Conservation, and Energy Act of 2008 established the Agriculture and Food Research Initiative, a new competitive grants program at the United States Department of Agriculture (USDA). As the successor to the National Research Initiative, AFRI integrates the basic research which provides the seeds from which all scientific and technological advancement will grow and the translational and applied research which brings these key discoveries to our nation's farms and citizen's daily lives. A recent report by the Economic Research Service (ERS) found "strong and consistent evidence that investment in agricultural research has yielded high returns per dollar spent" citing mean rates of returns of 53 percent<sup>1</sup>. However, our nation's investment in agricultural research has been declining, threatening our ability to sustain the vitality of our research portfolio. The establishment of AFRI, as well as the new National Institute for Food and Agriculture (NIFA)

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<sup>1</sup> Fuglie, KO and Heisey PW. (2007) *Economic returns to public agricultural research*. USDA Economic Research Service, Economic Brief # 10. <http://www.ers.usda.gov/Publications/EB10/>

which will have oversight over AFRI and other USDA research programs, presents an unparalleled opportunity for revitalization of our agricultural research system.

Agriculture and the research which advances it remain of crucial importance to our economy and quality of life. Research supported by the USDA contributes to our understanding of the nutrition that underlies our health; it protects human life and our food supply from pandemic disease and introduced pathogens; it allows us to respond quickly to emerging issues like Colony Collapse Disorder or foot and mouth disease; and has led the way in development of bioenergy resources. As Senator Tom Harkin, Chairman of the Senate Committee on Agriculture stated, “Every fruit, vegetable, and cut of meat the public eats has a research story behind it... The investment in agriculture research affects our daily lives now, and it will affect our lives even more in the future.” (March 7, 2007)

## **HUMAN NUTRITION, HEALTH, AND POLICY**

Nutrition is the foundation upon which human and animal health is built, and whose mysteries fascinate the American people like no other aspect of science. This is perhaps most evident in the daily news stories that seek to uncover the optimal diet required to maximize health or minimize risk of disease. Research has identified the critical role that nutrition plays in a myriad of health conditions, from cancer to heart disease to diabetes. Perhaps the most striking evidence of the importance of nutrition to health is the alarming increase in the rates of obesity in this country, especially in children and adolescents. Further research is essential as we seek to understand the causes, both innate and environmental, of this public health crisis.

The USDA is uniquely positioned to conduct nutrition and food-related research because of its singular perspective on the entire food system, from crop to livestock to food supply to human consumption. No other agency has the capacity to understand the connection between food, the food supply and its production, and the health of our nation. Through its competitive research program, the USDA is making the connection between what we eat and the healthiness of our lifestyle.

As our economy struggles to recover from decline and more Americans are suddenly faced with the challenge of feeding their families on a reduced income, affordable nutritious food should be a national priority. Through cutting-edge research we can improve yields, efficiencies, and nutritional value to ensure ample food for all during tough economic times.

## **SAFETY OF OUR FOOD SUPPLY**

In the past two years, our national attention has focused on food safety and the security of our food supply. The CDC estimates that 5,000 deaths and 76 million illnesses are caused each year by foodborne diseases<sup>2</sup>. The most recent outbreak, contamination of peanut products with salmonella, highlights the urgent need for increased investment in food safety. AFRI is at the forefront of developing new technologies to protect our food supply and discovering new ways to detect and neutralize threats to our crops, livestock, and food products. Research activities

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<sup>2</sup> Mead, P. *et al.* (1999) Food related illness and death in the United States. *Emerging Infectious Disease*, Vol. 5. <http://www.cdc.gov/ncidod/eid/Vol5no5/mead.htm>

range from food-borne illnesses to microbial resistance to food processing safety to biosecurity at our borders. Agricultural research is addressing concerns not only related to our domestic supply of foods, but those items that we import from international partners, as well. As the U.S. forges new ties and reinforces existing relationships in our increasingly global economy, it becomes even more critically important to ensure agricultural research is delivering the knowledge to protect our citizens and the foods they eat.

## **BIOENERGY AND CLIMATE CHANGE**

Agricultural and forestry resources are vitally important to both our development of biobased resources and our ability to address the threat of climate change. As House Minority Leader John Boehner stated last November, “One of the great accomplishments of the 111th Congress and President Obama’s initial years in office could be the implementation of an ... energy strategy that bolsters American-made energy, encourages conservation and efficiency, and promotes the use of renewable and alternative fuels.” Bioenergy has the potential to not only reduce our dependence on foreign oils but to provide a clean, sustainable fuel source that will mitigate the factor contributing to global climate change. The USDA funds research projects that produce science-based knowledge and technologies supporting the efficient, economical, and environmentally friendly conversion of biomass into value-added industrial products and biofuels. Furthermore, USDA funded research is responding to the issue of climate change by contributing to our understanding of the causes and effects of this phenomenon and how to best protect our natural resources.

## **RESPONDING TO EMERGING THREATS**

When beekeepers across the country began to report the alarming and mysterious loss of 50-90 percent of bees from their hives, the USDA took the lead in mobilizing research resources to find the source of what is now known as Colony Collapse Disorder (CCD). This is only one example of how a unique and emerging agricultural threat can swiftly challenge our nation’s economy, health or food supply. A new outbreak of foot and mouth disease in Europe, the looming specter of avian flu, and the continuing threat of mad cow disease all illustrate the need for the research resources required to address new and emerging pathogens and diseases. Only with an adequately funded agriculture research infrastructure can our nation be prepared to react and rapidly counter threats to our health and food supply.

## **THE UNITED STATES IS BEST SERVED THROUGH INVESTMENT IN AGRICULTURAL RESEARCH**

From the critical basic research supported at universities throughout the nation to the important work carried out by the Human Nutrition Research Centers, USDA research programs deserve to be supported at the highest level possible. We must maintain and magnify the breadth and competitive nature of the agricultural research portfolio, to ensure the United States’ economic vitality and the well-being of all Americans. **FASEB recommends the Agriculture and Food Research Initiative (AFRI) at the United States Department of Agriculture be funded at \$300 million in FY 2010.**