

RESEARCH, EDUCATION, AND ECONOMICS

Statement of

Dr. Merle D. Pierson, Deputy Under Secretary

Before the House Subcommittee on Agriculture, Rural Development, Food and Drug Administration, and Related Agencies

Mr. Chairman, members of the Committee, it is my pleasure to appear before you to discuss the fiscal year (FY) 2007 budgets for the Research, Education, and Economics (REE) mission area agencies of the USDA. I am accompanied by the four REE Administrators: Dr. Edward Knipping, Administrator of the Agricultural Research Service (ARS); Dr. Colien Hefferan, Administrator of the Cooperative State Research, Education, and Extension Service (CSREES); Dr. Susan Offutt, Administrator of the Economic Research Service (ERS); and Mr. Ronald Bosecker, Administrator of the National Agricultural Statistics Service (NASS). Also present is Dr. Scott Steele, Director of the Office of Budget and Program Analysis of the Department. Each Administrator has submitted written testimony for the record.

The President is committed to reducing the budget deficit by half, and USDA as well as many departments across the Federal Government, has been called on to help make this a reality. The President's FY 2007 budget proposes \$2.283 billion for the four REE agencies to conduct research, education, economics and statistical programs. This represents a slight decrease of \$39 million from the level in the President's fiscal year 2006 budget and a \$401 million decrease

from the total REE appropriation in fiscal year 2006. Within this decrease, the agency budgets have critical increases in high priority areas such as food and agricultural defense, nutrition and obesity, genomics, and animal and plant diseases.

Agricultural research is truly the lynchpin of the American food and agricultural system. A great deal of the system's success over many decades is attributable to the new scientific understandings and technology generated by our national food and agricultural research system, of which USDA's research agencies are key components. Numerous studies have found that the return on investment in agriculture research is high. Whether measured in productivity, competitive strength in global markets, environmentally sustainable production practices, or new science-based food safety technology, research and development underpins essentially all advances in the food and agriculture sector. It provides a necessary condition for success. Natural events, market conditions and resistance to adoption of new technologies can be formidable barriers to success. At the same time, absent cutting-edge research, the food and agriculture sector runs the risk of losing its edge in increasingly competitive global markets. In that context, I look forward to your consideration of the many important requests for the four REE agencies proposed in the President's budget.

The budget we are discussing today includes what I consider to be an innovative and excellent proposal for restructuring the Hatch and McIntire-Stennis formula programs. The Administration has been on record for some years as believing that competitive programs provide the most effective mechanism for allocating research funds to solve pressing national problems. Consistent with that proposition, the FY 2007 President's budget proposes an innovative approach to introducing competition into the Hatch and McIntire-Stennis formula

programs. Under the proposal, the current Hatch multi-state research program will be expanded from 25 percent to approximately 56 percent of the total Hatch funding in five years. As current multi-state projects are completed, an increasing portion of these multi-state funds will be competed. A similar proposal is made for the McIntire-Stennis formula program, with the introduction of a new nationally-competed multi-state program in FY 2007.

This design of the proposal for the two formula programs is responsive to the concerns raised by many stakeholders to last year's budget proposal. Among other things, the new proposal sustains matching funds and sustains the land grant institutions' federal funds for leveraging non-federal resources. In addition, it does not reduce appropriated funding from the FY 2006 enacted level. The Department looks forward to working with the State Experiment Stations and forestry colleges in developing an implementation plan for this expanded multi-state program.

Before turning to the individual agency budgets, I would like to describe increases in three particularly high priority areas for the Department: food and agricultural defense, nutrition and obesity, and genomics.

Food and Agricultural Defense Initiative: Now in its fifth year, the Food and Agriculture Defense Initiative is designed to strengthen the Federal Government's capacity to defend the Nation's food and agricultural systems against terrorist attacks, major disasters and other emergencies. The FY 2007 budget provides increased program funding of \$42.3 million for ARS and \$7.1 million for CSREES to expand their participation in this initiative.

Under the Food Defense component of the initiative, ARS increases will allow the agency to expand its food safety research, particularly focused on developing technology that

rapidly identifies suspected food pathogens and toxins. The budget also proposes an increase of \$4.2 million for ARS' National Plant Disease Recovery System which is designed to ensure that disease resistant seed varieties are continually developed and made available to producers in the event of a natural or intentional catastrophic disease or pest outbreak. An increase of \$24.6 million will support strengthening ARS' ongoing research on rapid response systems to bioterror agents, improved vaccines, and identification of genes affecting disease resistance.

The budget provides CSREES \$12 million, an increase of \$2.1 million from FY 2006, to maintain and enhance the Regional Diagnostic Network of public agricultural institutions that serves as a component of APHIS diagnostic laboratories for both animals and plants. The initiative also includes \$5 million for a competitive Higher Education Agrosecurity Program that promotes the training of food system defense professionals critically needed in securing our Nation's agriculture and food supply.

Nutrition and Obesity: Concern continues regarding the epidemic of obesity in the Nation. Particularly distressing is the incidence of obesity in children, estimated to be approximately 16 percent for children and adolescents ages 6 to 19. Recent studies show that Type 2 diabetes, previously considered an adult disease associated with obesity, is increasingly found in children. Future projections of the incidence of diabetes, particularly for Hispanic and African-American children, are alarming. The causes of obesity are many and complex. Levels of physical activity, reliance on convenience food, large food portions, and genetic make-up all play a role. Whatever the set of causes and their interplay, collectively they portend greater problems for individuals, families, communities and the country, with the potential for significant productivity losses to the economy and increases in health-related expenses. Funding

for research now could significantly contribute to the reduction of these negative impacts in the future.

As the Federal Government department most closely associated with food policy and programs, USDA has an important role in addressing the obesity challenge and more broadly promoting healthy nutrition and weight. Its food assistance, nutrition education, and nutrition research programs are all addressing this major national public health problem.

Under the President's Healthier US Initiative, the FY 2007 budget proposes increases and program redirections for ARS, CSREES, and ERS that will strengthen the Department's capacity to address obesity and associated issues. The increases focus on gaining a better understanding of food consumption patterns and the factors influencing them, and on developing effective interventions to promote healthy dietary choices.

ARS increases and redirection of funds total \$11.3 million, of which \$4.7 million will support a longitudinal study to assess the long-term benefits and approaches to controlling weight. We know that it is easy for people to control weight for a short period, but very difficult to do so for extended periods of time. This initiative will be the only one of its type to address the efficacy of the healthful eating and physical activity patterns set forth in the Dietary Guidelines in preventing obesity in the U.S. population, with particular attention focused on children. One aspect of the obesity conundrum is that the factors affecting dietary choices and the effects of those choices are not only complex, but vary with subpopulations. Redirected funds in ARS will be used to gain a better understanding of dietary patterns that contribute to obesity in low socioeconomic and minority populations. Other redirected funds will support research to develop effective, and likely distinct, dietary strategies for children, middle-aged

adults and Native Americans.

An ERS increase of \$1.6 million under the agency's new consumer data and information system will be used to obtain food-away-from-home data that is important in supporting the development and targeting of USDA policies and programs to help improve the diets and nutrition of all consumers, particularly low-income consumers.

Genomics: The future of agriculture rests in genomics and associated molecular biology. Moreover, in many ways that future is here. Genomics and molecular biology are now effectively being used in many types of food and agricultural research focused on a wide range of research objectives. Over the last several years, ARS and CSREES have increased their investment in genomics and molecular biology, helping to lay the foundation for their use today in applied research. Past increases have supported sequencing the genome of important agricultural plants and animals and learning about the functions of different genes and how they can be turned on and off. ARS and CSREES supported researchers are now aggressively using the technology associated with genetic and molecular biology toward such goals as developing rapid detection tests, isolating disease resistant plant varieties, and enriching the nutrients in food.

Both the ARS and CSREES budgets continue a trend of requested increases in genomics. The President's FY 2007 budget provides a total of almost \$17.7 million for the two agencies. The ARS budget provides an additional \$8.7 million to identify genes that influence animal and plant growth and quality, disease resistance, and other economically important traits. The proposed increases in the National Research Initiative (NRI) of CSREES would support new or more research in domestic animal genomics (\$5 million), genomics to improve production of

biofuels and biobased products (\$1 million) and molecular biology to improve the water use-efficiency of plants (\$3 million).

An important part of the ARS and CSREES genomics programs is active partnering with other science institutions and governments. For example, research on plant genomics, in particular sequencing the soybean genome, is being supported through a CSREES partnership with the U.S. Department of Energy. ARS and CSREES are both coordinating their genomics research with NIH's National Human Genome Research Institute, and the National Science Foundation.

Classical Chinese Garden: Under the ARS Building and Facilities program, the President's budget proposes \$8.4 million towards a Classical Chinese Garden at the U. S. National Arboretum. The Garden is a gift from the Chinese government and people to the U.S. government and people. Once completed, the Garden will be the finest example of a Classical Chinese Garden outside of China. The Garden will also enrich the Arboretum's research program, through increasing the availability of vast numbers of plants from China that can be used to develop new and improved ornamental and floral plants in the U.S. The proposed \$8.4 million will be used for design validation, infrastructure, and site preparation only. An estimated equivalent of over \$50 million will be contributed by the China's State Forestry Administration towards the Garden. The Chinese government is providing the garden structures, rockeries, furniture, art objects, and unique plants and is reassembling all the structures and placing them on the infrastructure foundation provided by the U.S.

REE FY 2007 Initiatives

I would now like to turn briefly to the budgets of the four REE agencies.

Agricultural Research Service: The Agricultural Research Service FY 2007 budget requests slightly over \$1 billion in ongoing research and information programs and facilities. Within the total, the budget proposes increases of \$57.7 million dedicated to high priority programs addressing issues of national and regional importance, several of which were previously described. The budget also proposes \$49.1 million in program redirections of ongoing base resources to enhance priority research objectives. To offset the increases, terminations of approximately \$195.7 million in current programs are proposed. As the principal intramural biological and physical science research agency in the Department, ARS continues to play a critical role for the Department and the larger agricultural community in conducting both basic and mission-oriented research. Results from ARS' basic research provide the foundation for applied research carried out by ARS, academic institutions and private industry. ARS' applied research and technology development address the research needs of other USDA agencies, as well as of those engaged in the food and agriculture sector.

In addition to the increases previously described, the ARS budget proposes increases to strengthen its research program addressing several diseases, pests, and pathogens threatening crop and animal production and marketing and in some cases, human health. Bovine Spongiform Encephalopathy (BSE) continues to be a challenge for the livestock sector, particularly as it relates to foreign markets. An increase of \$9.8 million will support ARS scientists in the development of countermeasures to detect, control, and eradicate future BSE and

Chronic Wasting Disease. Rust diseases, such as Asian soybean rust, pose severe problems throughout the United States. A \$3.9 million increase will focus on controlling or minimizing the spread of rust diseases of grains and soybeans. Throughout the country, different varieties of invasive weeds, insects, and pathogens cause tens of billions of dollars of agricultural losses each year. Research on these wide-ranging threats such as the Asian Longhorned Beetle and Salt Cedar will be enhanced with a proposed \$5.4 million increase.

Development of biobased fuels continues to be a high Administration priority. Research is critical to both improve the agricultural biomass feedstock for the production of energy and to develop the technologies to produce biofuels from the feedstock. An increase of \$3.6 million will enhance ARS on both these research objectives, as well as development of other biobased products. Other priority programs to be strengthened through funding increases or redirections include climate change and associated carbon sequestration, water quality and technologies to minimize vulnerability to drought, and air quality in the context of animal feeding.

The Abraham Lincoln National Agricultural Library (NAL), one of four national libraries, serves as a valuable national resource for information on food and agricultural sciences. Full integration of many kinds of digital information and fast, seamless navigation among them are essential for NAL to meet the increasingly complex customer demands. Proposed funding of \$4 million will be used to sustain the national collection of agricultural information warranted by a national library. The funds will also be used to continue developing information technology to manage and deliver information efficiently.

Cooperative State Research, Education, and Extension Service: The President's FY 2007 budget provides the Cooperative State Research, Education, and Extension Service just over \$1 billion, which is approximately the same as the President's FY 2006 budget and \$161.3 million less than FY 2006. In providing critical funding for the research, education, and extension programs of the Land Grant system and other universities and organizations across the country, CSREES continues to play a central role in the generation of new knowledge and technology, and the transfer of that knowledge and technology to stakeholders.

The restructuring of the Hatch and McIntire-Stennis formula programs at the same overall funding levels as FY 2006 is a critical part of CSREES' budget proposal. The budget also includes important increases to strengthen high priority programs.

The NRI, the agency's flagship competitive research program, continues to be a very effective avenue for supporting cutting-edge research conducted by the finest scientists across the country. The FY 2007 budget proposes a \$66.3 million increase in the NRI. In addition to the increases in genomic research previously described, the budget provides for increases in animal production, emerging issues in food and agricultural biosecurity, and invasive species. A \$42.3 million increase in the NRI on-going programs is being shifted from the Integrated Activities account to the NRI to achieve greater efficiency in program administration. The focus of the programs, including water quality and food safety, will stay the same.

The proposed CSREES budget also includes an increase of about \$1 million to a total of \$6.9 million to fund outreach and technical assistance for socially disadvantaged farmers and ranchers.

Economic Research Service: The Economic Research Service is provided \$82.5 million in the President's FY 2007 budget. As the Department's principal intramural economics and social science research agency, ERS conducts research and analysis on the efficiency, efficacy, and equity aspects of issues related to agriculture, food safety, human nutrition, the environment, and rural development. In addition to the increases described above related to obesity and nutrition, the budget includes \$5 million to fund a new Agricultural and Rural Development Information System, a comprehensive data collection and research program to monitor the economic health and well-being of farm and non-farm households in rural areas. The increase will support collection of multiple-year, longitudinal information on rural household in areas with specific challenges, such as persistent poverty and population loss, and adds a longitudinal component to USDA's Agricultural Resource Management Survey (ARMS) to collect information on farms in the same areas. In particular, the information generated will support programs administered by the Department's Rural Development mission area.

National Agricultural Statistics Service: The National Agricultural Statistics Service budget requests \$152.5 million, an increase of \$13.3 million over the FY 2006 Act. NASS' comprehensive, reliable, and timely data are critical for informing policy decisions to keep agricultural markets stable, and to ensure a level playing field for all users of agricultural statistics. The President's budget provides increases in the agency's agricultural estimates program and the Census of Agriculture.

An increase of \$3.9 million is directed at the continuing restoration and modernization of the agency's core survey and estimation program begun in FY 2004. Producers rely on the

NASS surveys as being comprehensive and accurate in making their decisions. Funding received in the FY 2004 through FY 2006 appropriations has been used to successfully improve the precision level for commodity surveys conducted by NASS for state, regional, and national estimates through sample size increases and better survey response. Funding requested in FY 2007 will promote data quality by encouraging voluntary response through increased respondent awareness of market and policy reliance upon USDA-NASS statistical measures and by improving the data collection capabilities of local interviewers throughout the Nation. The budget also provides an increase of \$7.3 million for the Census of Agriculture based on its five year cycle. The increase supports the normal increase in the level of activity as the next Census year, 2007, approaches. The 2007 data will be collected in 2008. For the first time, respondents will be able to complete the survey over the Internet.

Summary

In summary, the REE agencies' budgets we are discussing today present a balanced research, education, and economics portfolio, with investments in such high priority issues as animal disease, nutrition and obesity, food safety and farm household well-being. Such a budget is particularly notable at a time of severe budget constraints.

Reflecting back on the importance of research to the long-term success and competitiveness U.S. agriculture, it is critical that a strong, dynamic, and focused food and agricultural research portfolio be sustained. The proposals for REE in the President's budget will do just that. This concludes my statement. Thank you for your attention. I look forward to answering your questions.