For release only by the
House Committee
on Appropriations

NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

Statement of Dr. Chavonda Jacobs-Young, Acting Director
Before the Subcommittee on Agriculture, Rural Development,
Food and Drug Administration, and Related Agencies

Mr. Chairman and Members of the Subcommittee, I appreciate the opportunity to present the President's 2013 budget for the National Institute of Food and Agriculture (NIFA), one of the four agencies in the Research, Education, and Economics (REE) mission area of the United States Department of Agriculture (USDA).

Anniversary

As USDA commemorates the 150th anniversary of the founding of the Department, the land grant universities also are celebrating the 150th anniversary of the First Morrill Act. In 1862, the First Morrill Act was passed and it laid the framework for public higher education provided by the land grant university system. The land grant universities are planning activities during the year to honor their accomplishments and emphasize their commitment to research, education, and extension for the future.

NIFA along with our university partners and other stakeholders will continue to work together to capitalize on past successes, and strive for new discoveries that advance knowledge for agriculture, the environment, human health and communities. Together we can and will be responsive to the national and global challenges facing agriculture today and in the future.

NIFA Institutes

As previously reported in its 2010 reorganization, NIFA established four Institutes to fund outcome-driven programs that address the science priorities that will maintain the preeminent world position of U.S. agriculture. The Institutes continue to provide leadership and administer Federal assistance programs which support focus areas of bioenergy, climate and environment; food production and sustainability; food safety and nutrition; and youth, family, and community. The Institutes are bringing together experts in various disciplines and functions to form multidisciplinary, outcome-based teams that focus on achieving core stakeholder needs while enhancing the quality, relevancy, and performance of programs.

Proposal

The NIFA 2013 budget proposal for discretionary funding is $1.24 billion. This represents an increase of $36.78 million or approximately 3.05 percent above the 2012 Consolidated Appropriation discretionary funding amount of $1.21 billion. NIFA's budget includes the proposed consolidation of programs, as requested by Congress, and the redirection of funds to support higher priority activities. Overall, the proposal promotes efficiency in program management for greater focus and impact of NIFA programs.

NIFA works in partnership with the land grant university system, other colleges and universities, and public and private research and education organizations to support exemplary research, education, and extension that address many national issues from agricultural production, nutrition, and food safety to energy independence and the sustainability of our natural resources. These partnerships result in a breadth of expertise that can quickly and efficiently deliver critical knowledge through innovative systems.

The 2013 budget request continues to align funding and performance objectives with the USDA strategic goals and the REE Action Plan. The agency defines distinct performance criteria,

including strategic objectives and key outcomes, with identified annual targets. As part of an integrated budget and performance process, NIFA developed a plan for conducting periodic portfolio reviews by external experts. We completed an external review of all major programs, and are working to implement the review recommendations in planning and managing programs. We continue to conduct external reviews on a rotating basis.

Agriculture and Food Research Initiative (AFRI)

The President's 2013 budget proposes $325 million for AFRI. AFRI is NIFA's core competitive grant program for research, education, and extension. The program provides funding for projects that address critical issues in U.S. agriculture in the areas of bioenergy, global climate change, global food security, nutrition and health, food safety, foundational programs, and NIFA fellowships.

Bioenergy: NIFA supports the comprehensive plan to invest in alternative and renewable energy. A recent award to South Dakota State University will design a feedstock production system for bioenergy production that optimizes energy production and maintenance of ecological series. A project at Fort Valley State University (Georgia) will devise sustainable production systems of four feedstocks to (1) develop best management practices for a sustainable biomass practices/ production system, (2) reduce greenhouse gas emission, (3) promote carbon sequestration, (4) improve soil quality, and (5) reduce the rate of nitrogen fertilization. Both of these projects are funded under AFRI's sustainable bioenergy challenge area and support the development of regional systems for sustainable production of bioenergy and biobased products that will assist rural communities to create wealth and thrive economically.

In 2013, bioenergy funding will support regional projects that link research for sustainable biomass production, logistics of handling feedstocks for biofuels, and education programs to create the needed skilled workforce. Ongoing research will focus on enhanced value co-products

and crop protection, land-use changes resulting from feedstock production and conversion, and identification of socioeconomic impacts of biofuels in rural communities in order to enhance sustainable rural economies. Funding will be used for genomics work that optimizes dedicated biofuels feedstocks. NIFA also will support one new multi-State regional project to catalyze development of sustainable bioenergy production systems in a region of the country not covered by previous multi-State regional awards.

Global Climate Change: AFRI will support activities on adaptive capacities and mitigation potentials of agricultural and natural resource systems to climate variables such as drought, limits on irrigation water supplies, floods, and temperature extremes. Efforts will help farmers, ranchers, land owners, and rural communities adapt to climate variation, reduce greenhouse gas emission, and increase carbon sequestration.

Examples of activities funded under global climate change include a coordinated agricultural project (CAP) award to the University of Idaho. The project will focus on enhancing the sustainability of Inland Pacific Northwest grain production systems under ongoing and projected climate change while contributing to climate change mitigation. In a CAP award to the University of Florida, scientists will work to create and disseminate the knowledge necessary to enable landowners to harness planted pine forest productivity to mitigate atmospheric carbon dioxide, use nitrogen and other fertilizer inputs more efficiently, and adapt their forest management to increase resilience in the face of changing climate.

Global Food Security: In 2013, programs will address pressing issues in food production that contribute to national and global food security while helping America promote sustainable agriculture and agricultural exports. Funding will support projects to improve the understanding of genomic information and breeding to develop new and improved animal breeds and crop cultivars for increased food production and quality. Efforts will target activities that address the

programs of U.S. agriculture, create mutual benefits domestically and abroad, and allow new opportunities for inter-departmental initiatives as appropriate.

A recent award to the University of California will use an integrated plan of research, education, and extension to address late blight, a plant disease which is caused by the fungus-like microbe called *Phytophthora infestans.* The plan includes developing diagnostic tools, improving resistant plants through breeding and biotechnology, and using systems to provide improved management guidelines to growers.

Nutrition and Health: AFRI will support nutrition and health projects that focus on children and youth ages 2-19. Funding will be used to identify the behavioral factors that influence obesity; develop valid behavioral and environmental instruments that measure progress in obesity prevention efforts; and, fund nutrition research to develop and increase consumption of healthy foods that are low in energy (fats and sugars) and salt, and high in nutrient density and that are appealing to children.

A NIFA grant awarded to Oregon State University (OSU) will focus on obesity prevention in rural children. OSU's first goal is to understand the rural environment contributing to the incidence of obesity through partnering with Extension Services in six Western States to engage rural residents in community-based participatory research efforts. OSU's second goal is to plan, implement, and evaluate a multi-level intervention targeting the rural home, school, and community behavioral settings to promote healthful eating and increase physical activity, with the result of improving the body mass index among rural children ages 5-8.

Food Safety: NIFA is committed to advancing the safety of the U.S. food supply through new and improved rapid detection methods, pre- and post-harvest epidemiological studies, improved food harvesting, and advanced processing technologies. NIFA will fund critical environmental

and ecological research to improve our understanding of disease-causing microorganisms, and of naturally occurring contaminants in meat, poultry, seafood, and fresh fruits and vegetables. AFRI Food Safety funds also will address efforts to minimize antibiotic resistance transmission through the food chain, and microbial food safety hazards of fresh and fresh-cut fruits and vegetables.

Human noroviruses are the most common cause of food borne disease (FBD). In a CAP award to North Carolina State University, a research team will use an integrated, multidisciplinary approach to develop improved tools, skills, and capacity to study foodborne viruses. They also will identify risk factors, and develop management strategies for reducing contamination in pre- and post-harvest environments.

Foundational Programs: NIFA has committed 30 percent of AFRI funding to foundational programs. AFRI funding will allow substantive research investments in (1) Plant Health and Production and Plant Products; (2) Animal Health and Production and Animal Products; (3) Food Safety, Nutrition, and Health; (4) Renewable Energy, Natural Resources, and Environment; (5) Agriculture Systems and Technology; and (6) Agriculture Economics and Rural Communities.

NIFA Fellowships: Funding will expand support for graduate and post-graduate education through awards made to individuals pursuing research careers in NIFA research priority areas. Under AFRI, NIFA recently funded fellowship awards to support 54 students from 32 universities in 23 States and the District of Columbia.

Crop Protection

NIFA proposes to consolidate funding for the special research programs Expert Integrated Pest Management (IPM) Decision Support System, IPM and Biological Control, Minor Crop Pest Management, Pest Management Alternatives; the extension program Smith-Lever 3(d) Pest

Management; and the integrated program Regional Pest Management Centers into a single integrated program, called Crop Protection. This consolidation will enhance NIFA's ability to support research, education, and extension activities needed to ensure food security and respond to other major societal challenges.

In 2013, $29 million in funding will support IPM projects that respond to pest management challenges with coordinated regional and national research education, and extension programs and promote further development and use of IPM approaches. It will foster regional and national team building efforts, communication networks, and enhanced stakeholder participation. The program will focus on plant protection tactics and tools, diversified IPM systems, enhancing agricultural biosecurity, IPM for a sustainable society, and development of the next generation of IPM scientists.

Grants for Insular Areas

NIFA also proposes to consolidate funding for the higher education programs Resident Instruction Grants for Insular Areas, and Distance Education Grants for Insular Areas into a single higher education program called Grants for Insular Areas. The proposed $1.7 million will enhance resident instruction, curriculum, and teaching programs in food and agricultural sciences located in the insular areas of Puerto Rico, the U.S Virgin Islands, Guam, American Samoa, the Northern Mariana Islands, Micronesia, the Marshall Islands or the Republic of Palau. Additionally, the program will support activities to strengthen the capacity of institutions in these insular areas to carry out collaborative distance food and agricultural education programs using digital network technologies.

Sustainable Agriculture

In 2013, NIFA proposes an increase of $3.5 million for a new State-Federal matching program which will leverage State and/or private funds and build the long-term capacity to guide the

evolution of American agriculture to a more highly productive, sustainable system. Funding will support activities that (1) integrate sustainable agriculture in all State research, extension and education projects; (2) support new research at sustainable agriculture centers; (3) build stronger Statewide farmer-to-farmer networks and outreach and technical assistance strategies; and (4) incorporate sustainable agriculture studies and curriculum in undergraduate and graduate degree programs.

Hispanic-Serving Agricultural Colleges and Universities Endowment Fund

The Hispanic/Latino community is the fastest growing sector of the American population. In 2013, the NIFA budget requests $10 million to establish an endowment fund for the Hispanic-Serving Agricultural Colleges and Universities (HSACU). This investment is needed to assist HSACU compete effectively for NIFA competitive grants. Support for this endowment fund will help in the development of a skilled and marketable Hispanic student population for employment in the food and agriculture sector.

Education Programs

NIFA continues to support activities to make science, technology, engineering, and mathematics (STEM) a national priority. Funded activities also will support training to help create a vast pool of graduates interested in careers in the biotechnology, food systems, economics and other fields of agriculture. For the most recent award cycle, NIFA supported under the Graduate Fellowships Grant program 20 master fellows and 46 doctoral fellows. Under the Multicultural Scholars program, an estimated 58 scholars will be supported. In 2013, NIFA is requesting an increase of $1.8 million for the Graduate Fellowships Grant; Institution Challenge Grants; Multicultural Scholars; and Secondary Education, Two-Year Postsecondary Education and Agriculture in the K-12 Classroom programs.

Extension Programs

The 2013 budget proposes an increase totaling $1.4 million in extension activities. Funding is proposed for the New Technologies for Agricultural Extension Program to support eXtension (pronounced e-extension), a national web-based information and delivery system. With over 19 million page views and 9 million visits to the public website, the Cooperative Extension System is reaching new and different audiences as well as serving traditional clientele better. Funding for the Children, Youth, and Families at Risk Program will be used to improve the quantity and quality of comprehensive community-based programs for them. NIFA also proposed funding to assist forest and range landowners and managers in making resource management decisions under the Renewable Resources Extension Act Program.

Other Programs

With the number of grant proposals received increasing by over 30 percent from 4,875 in 2010 to 6,360 in 2011; NIFA's budget proposal includes an increase of $3 million in Federal administration costs to support modernization of our grant applications systems and process. It is anticipated that these improvements will save proposal review time in the grant review process.

We will continue funding for most other programs, including formula funded programs and minority-serving programs.

Stakeholder Input

During the past year, NIFA listened to input from stakeholder groups and individuals. In February, NIFA held a meeting to obtain stakeholder input and comments for consideration in developing AFRI solicitations. We also will host a series of seven webinars during March and April to focus on the AFRI Challenge Areas, Foundational Program, and Fellowships. On March 6, representatives from the National Association of University Forest Research Programs (NAUFRP) visited NIFA. NAUFRP represents 69 of the nation's premiere universities and their

related forestry research, education, and extension scientists. The meeting was an opportunity to gather stakeholder input, and to establish new or strengthen existing partnerships. NIFA is scheduled to meet on March 29 and plans to schedule additional meetings with our partners regarding our current pest programs and the proposed new Crop Protection program. In addition, NIFA leaders visited a select number of institutions to listen to the concerns of faculty, deans, administrative units, scientific organizations, and/or small businesses.

Conclusion

In a time of limited financial resources, this budget proposal streamlines NIFA's portfolio of programs to maximize our research, education, and extension investments in America's agricultural future. It supports the modernization of our business processes for efficiency in program delivery. It encourages the development of the next generation of the best and brightest scientists. Lastly, this proposal addresses concerns expressed by our stakeholders, and strives to make a difference in solving emerging problems in the food, agricultural, and human sciences.

Mr. Chairman, this concludes my statement. I will be glad to answer any questions the Subcommittee may have.