

**HEARING TO REVIEW THE IMPLEMENTATION
OF THE RESEARCH TITLE OF THE 2008
FARM BILL**

HEARING
BEFORE THE
SUBCOMMITTEE ON CONSERVATION, CREDIT,
ENERGY, AND RESEARCH
OF THE
COMMITTEE ON AGRICULTURE
HOUSE OF REPRESENTATIVES
ONE HUNDRED ELEVENTH CONGRESS
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HEARING TO REVIEW THE IMPLEMENTATION OF THE RESEARCH TITLE OF THE 2008 FARM BILL

WEDNESDAY, SEPTEMBER 30, 2009

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON CONSERVATION, CREDIT, ENERGY, AND
RESEARCH,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Subcommittee met, pursuant to call, at 10:06 a.m., in Room 1300, Longworth House Office Building, Hon. Tim Holden [Chairman of the Subcommittee] presiding.

Members present: Representatives Holden, Dahlkemper, Markey, Boccieri, McIntyre, Kratovil, Pomeroy, Goodlatte, Moran, Schmidt, Smith, and Thompson.

Staff present: Nona Darrell, Christy Birdsong, Adam Durand, Tyler Jameson, John Konya, Scott Kuschmider, Anne Simmons, Rebekah Solem, Patricia Barr, John Goldberg, Jamie Mitchell, and Sangina Wright.

OPENING STATEMENT OF HON. TIM HOLDEN, A REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA

The CHAIRMAN. The hearing will come to order. This hearing of the Subcommittee on Conservation, Credit, Energy, and Research to review the implementation of the research title of the 2008 Farm Bill will come to order.

I would like to welcome everyone to today's hearing. I would hope this hearing will provide a good review of the implementation of agriculture research programs since we passed the farm bill in 2008. The hearings we held during consideration of the 2008 Farm Bill showcased the importance of an increasing demand for agriculture research.

Specialty crop growers called for additional and enhanced research programs to maximize their production and efficiency. Other farmers wanted more funding for research on conservation practices. Even more producers asked us for increased research and development on renewable energy.

Clearly the fundamental need for research spans across several different commodities in various agricultural sectors. Several agencies within USDA, state partners and private organizations, conduct the bulk of agriculture research. Calculations under rate of return on Federal investment in agriculture research is estimated to

be 6.8 percent per year. These programs are not only high in demand with users, but they are fiscally responsible as well.

We made changes in the 2008 Farm Bill such as streamlining agriculture research by establishing a National Institute of Food and Agriculture. These changes should maximize efficiency and coordination throughout USDA's research agencies. We also addressed the growing list of needs in agriculture research, extension and education for food and agriculture sciences, by creating a premier research program called the Agriculture and Food Research Initiative.

As we implement this new farm bill, we must ensure that the integrity of these programs remains intact and that the organizations involved can continue their successful work.

In these times of budgetary constraints, we hope that the changes we made in the 2008 Farm Bill are very helpful in enhancing cooperation, and streamlining the research to save taxpayer dollars. We must be innovative in meeting all of the different research needs and adapting to the increasing demand for newer areas of research. Research is an important investment in our future. I look forward to hearing from our witnesses today on how we are implementing agriculture research programs.

[The prepared statement of Mr. Holden follows:]

PREPARED STATEMENT OF HON. TIM HOLDEN, A REPRESENTATIVE IN CONGRESS FROM
PENNSYLVANIA

I would like to welcome everyone to today's hearing. I hope this hearing will provide a good review of the implementation of agricultural research programs since we passed the farm bill in 2008.

The hearings we held during consideration of the 2008 Farm Bill showcased the importance of, and increasing demand for, agricultural research. Specialty crop growers called for additional and enhanced research programs to maximize their production and efficiency. Other farmers wanted more funding for research on conservation practices. Even more producers asked us for increased research and development on renewable energy. Clearly, the fundamental need for research spans across several different commodities and various agricultural sectors.

Several agencies within USDA, state partners, and private organizations conduct the bulk of agricultural research. Calculations on the rate of return on Federal investment in agricultural research estimate it to be 6.8 percent per year. So these programs are not only in high demand with users, but they are fiscally responsible as well.

We made changes in the 2008 Farm Bill, such as streamlining agricultural research by establishing a National Institute of Food and Agriculture (NIFA). These changes should maximize efficiency and coordination throughout USDA's research agencies. We also addressed the growing list of needs in agricultural research, extension, and education for food and agricultural sciences by creating a premier research program called the Agriculture and Food Research Initiative (AFRI).

As we implement this new farm bill, we must ensure that the integrity of these programs remains intact and the organizations involved can continue their successful work. In these times of budgetary constraints, we hope that changes we made in the 2008 Farm Bill are very helpful in enhancing cooperation and streamlining research to save taxpayer dollars. We must be innovative in meeting all of the different research needs and adapting to the increasing demand for newer areas of research.

Research is an important investment in our future. I look forward to hearing from the witnesses on how we are implementing agricultural research programs.

The CHAIRMAN. I now recognize the Ranking Member of the Subcommittee, the gentleman from Virginia, Mr. Goodlatte.

**OPENING STATEMENT OF HON. BOB GOODLATTE, A
REPRESENTATIVE IN CONGRESS FROM VIRGINIA**

Mr. GOODLATTE. Thank you, Mr. Chairman. I appreciate that this Subcommittee will be addressing issues related to the USDA's implementation of the research title of the recently passed farm bill. Many factors have contributed to the unparalleled success of American agriculture, the favorable soils and climate, hard work and dedication of farm families, free enterprise, transportation and communication.

But one factor of undeniable importance was the Green Revolution, the expansion of food production, enabled in large part by science-based advances in food and agriculture. It has been estimated that around the globe, the Green Revolution has saved over a billion lives from starvation and countless millions more from the ravages of disease and sickness due to malnutrition.

As we mourn the recent passing of the father of the Green Revolution, Dr. Norman Borlaug, we can take pride in the past, present and future advances made possible through research programs which Dr. Borlaug so tirelessly advocated.

The contribution of publicly supported agricultural research to advance food production and productivity is well documented. These improvements in agricultural productivity generated by research, while of great importance to the farmer, are broadly shared with society in terms of a efficient production system that is competitive in the global environment.

These improvements also contribute to a safe and secure food and fiber supply, a healthy, well-nourished population and a growing economy. In developing the research title of the recent farm bill, this Committee spent considerable time working with the USDA, the research community and the beneficiaries of publicly funded research, education and extension programs to enhance the quality, transparency and accountability of these programs.

With the implementation deadline of tomorrow, October 1, for several significant provisions of the research title, it is particularly timely for this Subcommittee to hear from the USDA, the USDA Research Advisory Board, our land-grant universities, and other constituent groups to update us on these important developments.

Mr. Chairman, I thank you for holding this hearing, and I look forward to today's testimony and the considerable discussion that will follow in this Committee.

The CHAIRMAN. The chair thanks the gentleman.

I would ask all other Members of the Subcommittee to submit their opening statements for the record.

[The prepared statement of Mr. Peterson follows:]

**PREPARED STATEMENT OF HON. COLLIN C. PETERSON, A REPRESENTATIVE IN
CONGRESS FROM MINNESOTA**

Thank you, Chairman Holden and Ranking Member Goodlatte, for your leadership and for calling today's hearing so that we can examine implementation of important farm bill programs.

I will be very brief so that our witnesses can provide us with their testimony. I look forward to today's examination of the progress made following the changes made in the 2008 Farm Bill to agricultural research programs.

The research, education and extension that USDA oversees and funds helps increase agricultural productivity, prevents and addresses plant and animal disease, improves human nutrition and health, and discovers and utilizes new technologies.

I thought we did a lot of good things in the farm bill to streamline and modernize the agricultural research functions at USDA. The farm bill re-engineered the functions of the Department, with the intent of making agricultural research more efficient, modern, and more accountable to the taxpayer.

As Chairman Holden said, we worked to meet the demand for research in areas such as specialty crops and renewable energy, and education and extension geared towards beginning farmers and ranchers. This modernization was done to meet the new food, feed, fiber and fuel challenges of the next generation, while improving the return on taxpayer investment.

We are approaching the reorganization of some of our existing research programs under the National Institute of Food and Agriculture, so now is a good time to take stock of where we are and where we need to go.

Once again, I thank Chairman Holden and Ranking Member Goodlatte for calling for this hearing and for their leadership on examining farm bill implementation. I yield back my time.

The CHAIRMAN. I would now like to welcome our first witness, Dr. Rajiv Shah, Under Secretary of Research, Education, and Economics at the United States Department of Agriculture.

Dr. Shah, you may begin when you are ready.

STATEMENT OF HON. RAJIV SHAH, M.D., UNDER SECRETARY OF RESEARCH, EDUCATION, AND ECONOMICS, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Dr. SHAH. Thank you, Chairman Holden, Ranking Member Goodlatte and distinguished Members of the Subcommittee.

I appreciate this opportunity to discuss the programs delivered by my mission area at the U.S. Department of Agriculture. As Under Secretary of Research, Education, and Economics and Chief Scientist, I oversee four outstanding agencies: The Agricultural Research Service; the Cooperative State Research, Education and Extension Service, which, as you referenced, will tomorrow, on October 1, become the National Institute of Food and Agriculture; the Economic Research Service and the National Agricultural Statistics Service.

I have submitted my prepared remarks to the Clerk and asked that they be entered into the record.

The CHAIRMAN. Without objection, so ordered.

Dr. SHAH. Mr. Chairman, I am convinced that right now is our opportunity, with your leadership in Congress and with the help and support of the American people, to bring about real transformative change in the way we do science at USDA. Congress gave me two powerful tools for cultivating this transformational change in the 2008 Farm Bill, the establishment of the National Institute of Food and Agriculture and the creation of a Chief Scientist at the USDA. These are big, bold steps, and I thank you for your foresight and leadership to put these initiatives into place.

I will be using the role of Chief Scientist to focus our resources where scientific breakthroughs can fundamentally change the way we address difficult social problems, from the security of our food supply to food safety, climate change, bioenergy, human nutrition. As Chief Scientist, I also want us to rethink the scale of scientific endeavor at the USDA and to harness the very best science and give us the ability to leverage our investments with partners from the Federal science enterprise, industry, and academia.

I appreciate the reference to Dr. Borlaug who, of course, was the stunning example of success in many of these principles. I hope, as we go forward with this change effort, that we are really living up to the example he set in pursuing outstanding research, taking risks, working at scale and making sure the work is relevant to changing the lives of many.

In addition, I hope to use the Office of Chief Scientist to further Secretary Vilsack's and President Obama's commitment to make sure that our research has impact, that we generate real visible results for American families and producers in a very short time-frame and in a broad and significant manner. I have begun at USDA a systematic review of both our intramural and extramural research assets, with the goal of making sure that we target the right problems at the right scale, deliver measurable results, and improve the efficiency of our research enterprise. NIFA is a critical part of that effort.

While we will start the process in the next few days of launching the national institute, it will take many months to achieve the significant change in our operational model, our business model and our research priorities to make sure that we are living up to the full vision and intent as implemented in the farm bill.

I am delighted to share with you that Dr. Roger Beachy, a world-renowned plant scientist and eminent leader in this field, has agreed to become the first director of the new National Institute of Food and Agriculture. I have worked closely with Roger on a number of important issues over the years, and I am excited about his joining our team. He is a true leader in making sure that science plays a key role in addressing the issues that will form the core of our agenda, going forward.

He recognizes the unique value of our land-grant universities, our extension system and outreach program, such as the 4-H effort.

Many of you already know Roger and are familiar with his distinguished record as a scientist and manager. What I am excited about is his eagerness to work in a collaborative way with you in Congress, and with our staff at the USDA, to make sure that we implement the research title of the farm bill in close consultation and according to the spirit of the law.

The new NIFA structure will incorporate several best practices in research support from the National Institutes of Health, the Department of Energy, the National Science Foundation and other Federal science agencies. NIFA will be built around a small number of small scientific directorates that overlap with our top research priorities, and it will provide a flexible structure that will encourage partnerships with other agencies within USDA and the rest of the Federal science enterprise.

By partnering differently with academia and industry, we also hope NIFA will directly increase the return on investment of our grant making and will achieve better results in a faster and more visible manner. We have a rich and varied intramural base that likewise can be leveraged to ensure the ability to meet the Department's and the government's mission responsibilities.

Scientists in our Agricultural Research Service, for example, conduct truly world-class research. Recently they have identified a suc-

cessful device to control ticks that cause Lyme disease that could potentially reduce the prevalence in the Northeast of that disease quite significantly by more than $\frac{2}{3}$. Our ARS geneticists have also unlocked new portions of the corn genome, a breakthrough that could accelerate the development of important new traits like heat tolerance, water-use efficiency and nitrogen-use efficiency that could assure that we maintain our leadership role in production agriculture worldwide.

I thank you for giving me the opportunity to work with such stellar scientists in this exciting area of change at USDA. Most of the specific implementation activities of the research title of the farm bill deal with programs administered by CSREES: the Specialty Crop Initiative, the Organic Agriculture Research and Extension Initiative, the Agriculture, Food, and Research Initiative and the Biomass Research and Development Initiative.

In addition, the expansion of the Food and Nutrition Education Program to the 1890 Institutions, Smith-Lever 3(d) Programs, Hispanic Serving Agricultural Colleges, the Beginning Farmer and Rancher Development Program, and the Veterinary Medicine Loan Program are welcome additions.

I know that much of your thought and planning has gone into establishing or modifying these efforts. I want you to know that we continue to work diligently on implementation of each of these. They are important to me and the Department's leadership, so I have addressed each of these issues more extensively in my prepared remarks and look forward to answering any specific questions.

Mr. Chairman, Ranking Member, and Members of the Subcommittee, during my confirmation hearing, I pledged to approach my work at USDA with a spirit of learning, energy for service and commitment to outcome. I have been grateful for the leadership you have shown in giving me the expanded opportunities and tools to honor that pledge, and I thank you for your leadership in that area.

I also appreciate the opportunity to testify before this Subcommittee and learn your further thoughts so that we can work in consultation as we go forward.

I would like to conclude by thanking my staff and leadership, key Administrators of these agencies, Colien Hefferan, Ed Knipling, Cynthia Clark, and Kitty Smith, who have all joined us here today. It has been a real pleasure to work with them and work with their staffs, and to learn and meet so many of the wonderful scientists that work at USDA to carry out this mission.

That concludes my statement. Thank you.

[The prepared statement of Dr. Shah follows:]

PREPARED STATEMENT OF HON. RAJIV SHAH, M.D., UNDER SECRETARY OF RESEARCH, EDUCATION, AND ECONOMICS, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Chairman Holden, Ranking Member Goodlatte and distinguished Members of the Subcommittee, I appreciate the opportunity to discuss the programs delivered by my mission area in the U.S. Department of Agriculture (USDA). As Under Secretary of Research, Education, and Economics, I oversee four agencies: the Agricultural Research Service (ARS), the Cooperative State Research, Education, and Extension Service (CSREES), which on October 1, 2009 will become that National Institute for

Food and Agriculture (NIFA), the Economic Research Service (ERS) and the National Agricultural Statistics Service (NASS).

Mr. Chairman, I am convinced that right now is our opportunity—yours in Congress, ours in the Administration, and with the help and support of the American people—to bring about transformative change in the way we do science at USDA. Secretary Vilsack has made improving quality of life for families in rural communities a centerpiece of USDA's overall mission. The Secretary has repeatedly acknowledged how this Congress and the Administration have helped to provide the building blocks for a new rural economy. These building blocks include renewable energy, local and regional food systems, and nutrition—all of which research can help us advance. We can build on tremendous recent scientific discoveries—incredible advances in sequencing plant and animal genomes, and the beginnings of being able to understand what those sequences actually mean. We have new and powerful tools in biotechnology and nanotechnology. And we have bold new ideas about how to target and leverage our resources in ways that will harness the power of agricultural science for our health, wellbeing, and our environment.

Office of Chief Scientist

Congress gave me two powerful tools for cultivating transformational change at USDA in the 2008 Farm Bill—the establishment of a National Institute of Food and Agriculture (NIFA) and the creation of a Chief Scientist at USDA. These are big, bold steps, and I thank you for the foresight and leadership to put these two initiatives in place. I will be using the role of Chief Scientist to **focus** our resources where scientific breakthroughs can fundamentally change the way we address some of the most vexing of society's problems, from food safety and food security to climate change. As Chief Scientist, I also want us to re-think the **scale** of scientific endeavor at USDA to enable us to harness the best science, and to give us the ability to leverage our investments with partners from the Federal science enterprise, industry, and academia. In addition, I will use the office of Chief Scientist to further Secretary Vilsack's and President Obama's commitment to make sure that our research has **impact**—that it can be tied to real results for real people and their families. This will require that we think differently about how our research outputs are put to broad use more rapidly.

National Institute of Food and Agriculture

I have begun at USDA a top-to-bottom, systematic review of both our intramural and extramural research assets, with the goal of ensuring that we target the right problems at the right scale to give us the results we want. NIFA is a critical part of that review, and we will use NIFA to make our research portfolio more robust through enhancing competition for the research projects we fund. While we officially open the books on NIFA tomorrow, October 1, the next 6 months will be a time of great organizational evolution. This new structure—which will be built around problem-specific scientific disciplines—will allow us to better identify the research likely to yield scientific breakthroughs. It also will increase the return on investment of our grant-making process, and to better achieve results for our constituents and the American people. But we also have a rich and varied intramural research base that likewise can be leveraged to ensure the ability to meet the Department's—and the Federal Government's—mission responsibilities. I thank you for giving me the opportunity to initiate this exciting era of change at USDA.

The majority of the specific activities I would like to discuss with you today deal with CSREES as most implementation activity deals specifically with the programs administered by this agency. I am pleased to report to the Committee that we are preparing to make the transition from CSREES to NIFA as seamlessly as possible, and will make sure that our funding recipients do not experience any interruption in service as we move to cement the new research structure provided by NIFA. As the Committee knows, there were changes to many of the programs administered by CSREES and soon to be administered by NIFA. I have been amazed and pleased by the dedication and expertise of the USDA employees who have been crafting these changes that were necessary in implementing the 2008 Farm Bill. Their attention to detail and willingness to work long hours will pay dividends. I also want the Committee to be aware that we did not make these changes without extensive stakeholder input. Without exception we made sure to consult with stakeholders in each of the programs about which I will briefly update you.

Specialty Crop Research

The Specialty Crop Research Initiative (SCRI) was established in the 2008 Farm Bill to solve critical industry issues through research and extension activities. CSREES had a very short time frame in which to implement this program following the passage of the farm bill and before the end of Fiscal Year 2008. They were suc-

cessful and have now completed the second round of competitively awarded grants program that give priority to projects that are multi-state, multi-institutional, or trans-disciplinary; and include explicit mechanisms to communicate results to producers and the public. This newly created program in phase two received more than \$300 million in applications for the \$50 million in mandatory funding made available. All of these projects were matched dollar for dollar.

Organic Agriculture Research and Extension Initiative

In 2009, \$18 million in mandatory funding was made available for this program through the 2008 Farm Bill. The first round of grants will be announced soon. Grants of up to \$3 million will be awarded to fund projects that will enhance the ability of producers and processors who already have adopted organic standards to grow and market high quality organic agricultural products. Priority concerns include biological, physical, and social sciences, including economics. This program is particularly interested in projects that emphasize research and outreach that assist farmers and ranchers with whole-farm planning and ecosystem integration.

Agriculture and Food Research Initiative

The Agriculture and Food Research Initiative (AFRI) replaces the program formerly known as the National Research Initiative. Section 7406 of the Food, Conservation, and Energy Act established a new competitive grant program to provide funding for fundamental and applied research, extension, and education to address food and agricultural sciences. AFRI Grants shall be awarded to address priorities in United States agriculture in the following areas:

- (A) Plant health and production and plant products;
- (B) Animal health and production and animal products;
- (C) Food safety, nutrition, and health;
- (D) Renewable energy, natural resources, and environment;
- (E) Agriculture systems and technology; and
- (F) Agriculture economics and rural communities.

I am pleased to report that after extensive stakeholder input, the annual priority areas for the Agriculture and Food Research Initiative were announced in March 2009. Previously, CSREES published a Program Announcement on December 17, 2008, providing an initial announcement about the administration of AFRI for FY 2009.

Biomass Research and Development Initiative

CSREES along with the Department of Energy (DOE) Office of Biomass Programs competitively award Biomass Research and Development Initiative (BRDI) grants to eligible entities to research, develop, and demonstrate biomass projects (as defined in parts 1(A) & 1(B) of section 9008 of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8101 *et seq.*) as amended). The three main Technical Areas are: (1) Feedstocks Development, (2) Biofuels and Biobased Products Development, and (3) Biofuels Development Analysis. This is a joint solicitation with DOE managing the pre-application process and CSREES managing the full application process for this \$20 million program. Announcement of grant awards is expected in October.

Expanded Food and Nutrition Education Program

The CSREES' Expanded Food and Nutrition Education Program (EFNEP) is a unique program that currently operates in all 50 states and in American Samoa, Guam, Micronesia, Northern Marianas, Puerto Rico, and the Virgin Islands. It is designed to assist limited-resource audiences in acquiring the knowledge, skills, attitudes, and changed behavior necessary for nutritionally sound diets, and to contribute to their personal development and the improvement of the total family diet and nutritional well-being. The farm bill called for inclusion of 1890 Institutions into this program. This change has been incorporated as have changes in the formula for allocating excess funds to 1890 Institutions. Each 1862 and 1890 Institution will receive a minimum of \$100,000 as prescribed by the legislation.

Smith-Lever 3(d) Programs

Smith-Lever 3(d) funds are allocated to the states to address special programs or concerns of regional and national importance. The farm bill amends these programs to expand the eligibility to the 1890 Land-Grant Institutions and required that funds be awarded on a competitive basis with the exception of the Expanded Food and Nutrition Education Program, which is distributed on a formula basis. The University of the District of Columbia also was made eligible for these programs. Included in these programs are Pest Management, Farm Safety, Children, Youth and

Families at Risk, New Technologies for Agriculture Extension, Federally-recognized Tribes Extension Program and the Sustainable Agriculture (SARE) program. Again, the agency sought and received stakeholder input from all of the programs areas that were affected. We feel that each of the areas was provided ample opportunity for input and, for the most part the transition was quite successful.

Hispanic Serving Agricultural Colleges and Universities

The farm bill called for several new programs and inclusion in current programs for Hispanic Serving Institutions. CSREES conducted stakeholder sessions to determine how best to proceed on determining qualifications for a Hispanic Serving Institution to qualify for the various programs. We expect very soon to formally announce those qualification factors, with publication of an interim rule.

Beginning Farmer and Rancher Development Program

Farmers over the age of 55 own more than half the farmland in the United States. But the number of new farmers and ranchers over the age of 35 is increasing, as is the number of smaller farms and ranches nationwide. To address the needs of this changing generation, Section 7410 of the Food, Conservation, and Energy Act of 2008 made \$18 million available in Fiscal Year 2009 to fund a Beginning Farmer and Rancher Development Program (BFRDP). According to the legislation, a beginning farmer is considered to be a person who has 10 years or less of experience operating a farm or ranch. In 2007, approximately 21 percent of family farms met that definition. CSREES soon will announce the first round of these grants. Grants of up to \$300,000 will be available in this first year of the program.

Veterinary Medicine Loan Repayment Program

On September 8, the public comment period ended for the interim final rule for the Veterinary Medicine Loan Repayment Program. This program, much anticipated by all Agriculture animal stakeholders large and small, focuses on relieving the shortage of food-supply veterinarian shortages in rural agriculture production areas of the United States, and directly impacts the capacity and readiness of our National food safety infrastructure. It also relates directly to international food security because food animal veterinarians are the first line of defense against incursion of high consequence trans-boundary animal diseases that could close borders to trade (e.g., BSE, avian influenza, and foot-and-mouth disease). The program will be rolling out over several months in its first incarnation and first awards are anticipated to be made next summer. It is possible that the program will have an accumulated \$8 million available to incentivize, through educational loan repayment, veterinarians to fill positions where the food-supply veterinarian shortages are most severe.

Conclusion

I appreciate the opportunity to testify before this Subcommittee today, and I look forward to working with you, Mr. Chairman, Ranking Member, and all the Members of this Subcommittee as we continue our hard work to ensure that USDA is responsive to the needs for Agriculture Research, Education, and Extension. This concludes my statement. I will be glad to answer questions you may have.

The CHAIRMAN. Thank you, Dr. Shah.

Doctor, in your previous position at the Gates Foundation, you were responsible for awarding research and education funds. What was your view of the USDA and the USDA research infrastructure? I am sure you worked with them at that time?

Dr. SHAH. Well, thank you for that question. We really had two observations. One is USDA has had just a tremendous history in creating breakthrough after breakthrough in U.S. production agriculture in making major, major contributions to work around the world. A lot of the Green Revolution efforts that were cited in the Ranking Member's statements came from our ARS scientists working at international research institutes and developing great breakthroughs and technologies.

That said, I think from that perspective at Gates, I felt that sometimes our work was a little bit—our work, we did a lot of different things, and we were looking for partners, when I was at the Foundation, that could focus work at real scale and work in a very impact-oriented way.

I think the capacity to do that certainly exists within our programs. Many of the changes we are trying to make, especially with NIFA, will allow us to live up to those principles, focusing on a smaller set of core problems, bringing scientists together from around the world, so that we can work at far greater scale in our efforts and initiatives.

Some of the traits that we want to develop, for example, heat tolerance or drought tolerance, that kind of work requires broader and larger collaborations, longer periods of investment, and a longer time-frame before you see real results. We need to restructure ourselves, to take on those challenges most effectively.

So I would say with the work at Gates, we saw some areas of excellence and we already partnered with USDA. Wheat rust is already a good example of that. But we also saw some areas where things could be done a little differently, and I hope some of that helps inform how we go forward, especially with NIFA.

The CHAIRMAN. Thank you, Doctor. One of the issues we have struggled with over the years is how to best engage the research community in agriculture issues. Have you noticed more involvement from organizations representing traditional agriculture groups during the implementation process?

Dr. SHAH. I believe I have. I would say across the board there are two observations. One is, especially, with traditional stakeholders and constituent groups. Each of the agencies in the mission area have undergone extensive consultations. That is true in each of the specific programs that were highlighted in the farm bill and across the broader set of programs. So I think there is a deep engagement.

Even as we have set out a structure and an operational model for the new National Institute of Food and Agriculture, we have had the opportunity to meet with many stakeholders and seek extensive remarks and consultations with them. I have appreciated the fact that most of them have taken that as an opportunity to send a follow-up e-mail or a letter with very specific thoughts about the structure of this organization going forward, and in many cases we incorporated their great advice and guidance.

I personally believe that in order to have a truly outstanding scientific enterprise, we also need to broaden the tent and include consumer groups, food groups, and the private sector in a broader and more engaged set of collaborations, and so we have started to do that across the arena. One example is bioenergy where we have recently entertained and talked with a number of private sector partners that are developing dedicated feedstocks. We are exploring ways we could work together with them, and the Department of Energy, in a more robust partnership. I think as we expand on traditional partnerships and include a broader number of stakeholders in our work, we can expand the visibility and impact of our efforts, but it builds on a strong base of deep consultation.

The CHAIRMAN. Thank you, Doctor. I have one final question that you might not be able to answer. But I believe you have publicly committed to doubling research or research funding in 5 years and primarily through AFRI. Do you think the Administration will request an amount in AFRI in 2011 that reflects that commitment?

Dr. SHAH. I believe I am unable to comment on the details of 2011 and the budget request, because that is not completed yet, of course. But I do believe this Secretary and this President are uniquely committed to science and uniquely committed to this vision of using the National Institute of Food and Agriculture as the lever of change. I think that is consistent with the spirit and the leadership exhibited in the farm bill.

So I thank the Committee for its great leadership in setting out that tone. I thank the broad number of stakeholders and universities that came together over 5, 6, 7 years to create a real movement in that direction. I appreciate the fact that Secretary Vilsack and the President's science adviser, Dr. Holdren, and many, many others across the Administration, in many other Federal science agencies, have stood up for science at USDA.

The CHAIRMAN. Thank you, Dr. Shah. I now recognize the Ranking Member, Mr. Goodlatte.

Mr. GOODLATTE. Thank you, Mr. Chairman. Dr. Shah, welcome, we are delighted to have you here today.

In the last farm bill, some groups advocated a complete reorganization of all research programs and agencies of the Department into the National Institute of Food and Agriculture, or NIFA, but others felt that such a move was inappropriate at that time. What's the view of the Administration regarding combining all research programs and agencies under the NIFA umbrella?

Dr. SHAH. I think the spirit exhibited in the farm bill and the leadership there, where there was a very clear message sent that research has to be integrated, we have to do research in a problem-oriented way against very specific strategies, and that, frankly, the patience for dealing with disparate and disconnected research agencies was wearing thin. I think that we take that very seriously.

In that spirit, we are launching NIFA. We hope that NIFA will provide a great deal of intellectual leadership that will create a framework for USDA science that is very, very broad and inclusive. It should also be inclusive of other key partners.

Among many of the areas we work, health and human nutrition is a good example, partners like the National Institutes of Health have far more sources than we actually do. So engaging them in partnerships and getting their dollars to go to our research priorities becomes an important part of our vision and success.

A second thing I would say is we are deeply committed to reforming our intramural research assets in a way that I think is consistent with that earlier conversation about agricultural research. So even as we launch NIFA, which is primarily oriented around our extramural research funding programs, we are launching an internal study to review our intramural research assets and make sure that we are investing in excellence, making sure we continue to attract and retain the very best scientists, give them the tools to work with each other in a collaborative way, ask them to live up to—

Mr. GOODLATTE. Let me interrupt you. I have a lot of questions.

Dr. SHAH. Sure, sorry.

Mr. GOODLATTE. I want to follow up, though, on your comment about coordination because I think it is very important. Will the

newly-appointed Director of the NIFA report to you as the Under Secretary as designated in the previous Administration, or will the line of reporting go directly to the Secretary?

Dr. SHAH. It will report to me directly as the Under Secretary and Chief Scientist.

Mr. GOODLATTE. Good. To what extent do you believe the formation of the Research, Education and Extension Office or REEO, will assist in coordinating the Department-wide research programs?

Dr. SHAH. It already has. The REEO office has been a big part of developing the roadmap, which will be public very, very shortly as was specified in the farm bill.

We are in the process of transitioning the personnel in that group, but that group will continue to offer a great deal of leadership in offering that kind of coordinated view across USDA science. So it will continue in a strong manner.

Mr. GOODLATTE. In that regard, it is rumored that you will soon be replacing the REEO division chiefs with personnel from outside the Department. How do you plan on staffing those offices?

Dr. SHAH. I think most of the personnel that will take on those roles will actually be internal staff. There may be one or two cases where the best person for that role comes from the outside. We wanted to be agnostic about that criterion and really identified the very best people to provide the scientific leadership across the issues, as they were defined in the farm bill.

Mr. GOODLATTE. One of the things that concerns us here on this Committee very frequently is the stovepipe make-up of the U.S. Department of Agriculture, and the mentality that sometimes comes with that. What steps will you take to break down the stovepipes between the USDA science agencies internally, as well as with external partners. You mentioned that briefly in your earlier answer that I interrupted you on. But maybe you want to elaborate now.

Dr. SHAH. No, I thank you. I get very excited and so I go on, so please feel free to interrupt.

There are a few ways to answer that. The first is Secretary Vilsack has been deeply committed to breaking the stovepipes across all of our programs, and has pulled together the senior leadership in a very clear and focused way around a specific set of priorities. That process has been very helpful in achieving that goal.

The second is through the Chief Scientist, we have the ability now to set scientific standards and have leadership and strategic influence across all of science at USDA. We are already working very closely with the Forest Service R&D group, with the Food Safety Inspection Service leadership team there. Those types of partnerships will only expand over time, and the farm bill will set us up very strongly to do that.

The third is, NIFA will offer a great deal of leverage in doing that. Each of the scientific directors of NIFA will have a tremendous amount of opportunity to build partnerships across USDA and across the Federal science agencies. In fact, we are already doing that with the Department of Energy, the National Institutes of Health and the National Science Foundation where we have real concrete partnerships that I think will demonstrate this business model, that if we can work together, develop cohesive Federal Gov-

ernment strategies and then leverage partners, we can get more dollars, more energy and more outcomes against the goals we all collectively care about.

Mr. GOODLATTE. Thank you. Well, I share that ambition and look forward to working with you. I know many other Members of the Committee do as well.

I thank the Chairman.

The CHAIRMAN. The chair recognizes the gentlewoman from Colorado, Ms. Markey.

Ms. MARKEY. Yes, thank you very much.

Dr. Shah, as a new Member of the Committee, I wasn't here when the farm bill was passed. I have a couple of questions on some programs that are of particular interest to me in my district in Colorado. The first one is the Beginning Farmer and Rancher Development Program. Can you talk a little bit—you mentioned in your statement here that you will soon be announcing the first round of these grants and grants will be up to \$300,000. Can you talk a little bit about the process, some of the criteria. I guess it is available to farmers or ranchers who have 10 years or less experience, correct?

Dr. SHAH. Correct.

Ms. MARKEY. But if you could talk to me a little bit about when those grants will be available and what is some of the criteria that you are looking at?

Dr. SHAH. Sure. Well, first, we are thrilled to be able to be implementing that program and believe very strongly in it. The 2007 Census data shows the importance of that effort because of the tremendous growth in the numbers of farmers and producers in that category. That has been very exciting.

We did receive 194 applications and made 29 awards, so the competition and the award rate was about 14 percent, which seems like a healthy percentage. The breadth of interest demonstrates that the farm bill and the leadership to create the program was, in fact, a great thing because people have been responding very actively.

I think we are planning on making more than \$17 million in awards and, as you point out, the \$300,000 per award is the cap, and the criterion for eligibility is within 10 years of engaging in the activity.

Ms. MARKEY. Typically, what kinds of projects are people using the grant money for?

Dr. SHAH. Well, I could get back to you with the specific list of programs and projects that are involved in that. It is a pretty broad range of things, and so I will send a formal letter back by the end of this week with some detail on that, if that is helpful.

Ms. MARKEY. That would be helpful. And my next question was on the Expanded Food and Nutrition Education Program. It looks like you have 1890 Institutions, Land-Grant Institutions are eligible to receive these grants. Do you know, has that process started right now. Have you awarded any funds through that program yet?

Dr. SHAH. Yes, that process has started. Like all of these programs there has been a consultative process and then an award related to it, so I could get you more information on that in particular.

That is an area where we are actually very excited to take that forward in a more expanded way in future years because of the President's and the Administration's deep commitment to human nutrition, and particularly around child nutrition in certain communities. I think that is an important program that is getting a lot of visibility. And we look forward to working with that in a more expanded way in the future.

Ms. MARKEY. Okay. If you could just get me some information on where you are with that program, I would appreciate it.

Dr. SHAH. Sure. It is, for 2009, it is fully awarded. We will send more detailed information about that.

Ms. MARKEY. Okay. Thanks very much, good.

The CHAIRMAN. The chair thanks the gentlewoman and recognizes the gentleman from Kansas, Mr. Moran.

Mr. MORAN. Mr. Chairman, thank you very much.

Dr. Shah, thank you for the opportunity of questioning you and visiting with you this morning. I have one broad question and a couple of more specific ones.

In the stimulus package, significant dollars were allocated toward NIH and DOE research funding, huge—let me use the words significant research grants were provided. But it is my impression that nothing in the stimulus package was available for USDA research.

Is that true, and is there an explanation for why that is?

Dr. SHAH. I believe that is true, and I believe that is a tremendous wake-up call for why we need to do things very differently. The one thing I can say is that I have had the opportunity to visit Agricultural Research Service centers around the country and our universities and great scientists and members of our own staff.

I think people have broadly recognized that that was, in fact, very true. NIH received more than \$10 billion, and the agricultural sciences received virtually nothing. We are taking—a lot of what I talked about is the transformational change we are trying to implement, restructuring how we do work, thinking in a more long-term, more focused way and re-prioritizing a set of issues where we think we can have big, big breakthroughs that contribute to the President's agenda, will hopefully position us in a different way and raise the visibility and value of this work.

Mr. MORAN. Are you suggesting that there is something structurally inadequate or wrong at USDA different than NIH or DOE, or it is just a matter of priorities within the Administration, a matter of marketing, we get forgotten.

Dr. SHAH. I just don't think it is a matter of marketing. I think there are things we can do to be more relevant to our own stakeholders and to a broader cut of the American public. I think there is a lot more that we can do to accelerate the pace with which breakthroughs leave the laboratory and get into broad use.

We can expand private partnerships in a way that would increase not only the visibility, but also the efficiency of our work in a significant manner. We can make longer term, more focused grants that tackle whole problems as opposed to spreading that money very thin, and sometimes in a way that achieves some great scientific peer-reviewed publications, but doesn't always lead to the

kinds of big breakthroughs that you can take back to constituents in a way to show concrete progress.

We have had plenty of examples of success, but this is a big enterprise, and we can be better at this. That is what we are very focused on doing.

Mr. MORAN. I appreciate that. My more specific questions, I have, as well as several other Members of the House, have taken a significant interest in the Veterinary Medicine Loan Repayment Program. We are still waiting on implementation. The latest report I had from USDA was at the end of September would be a release, a solicitation for applications. Are you aware and involved in any update?

Dr. SHAH. I am aware and involved in that effort and recognize that this has been a process that has taken some time to come to fruition, and so we are looking into that quite carefully. There was a public comment period on this effort that closed on September 8. We have entered into agreements with Health and Human Services to monitor some of the efforts as we go forward.

We are trying to learn very much from their physician programs that have similar tools and a similar approach as we approach this effort, and we take this very seriously. I recognize that it is still underway and believe that the timeline that you identified is still the timeline that we are on.

Mr. MORAN. So, at the end of September is there still time for solicitations? That is almost an immediate announcement.

Dr. SHAH. We will have completed the rule, I am sorry. We will have completed the rule for the program by the end of September.

Mr. MORAN. Okay. Incidentally, I was told by your predecessors a previous Administration ago, so this isn't a criticism of you, but this fall, loan repayment would be in place. It doesn't sound like we are there yet.

Dr. SHAH. No. I don't think we are there yet. I will continue to look into this, and we can get back to you with more detailed information. There are a number of aspects of this that are more complex that we are looking into, as you are aware of, with respect to consolidated loans and other aspects.

Mr. MORAN. If you will, just have somebody call or brief me or send a memo describing where we are and how quickly we can get to where we need to be.

Dr. SHAH. We will.

Mr. MORAN. My final comment is more of a question. I just have a couple of seconds remaining. This is a Department of Energy issue, not directly a Department of Agriculture issue, but we care a lot about section 905.

It is from the farm bill. It is the Energy Program for Advanced Biofuels. The Department of Energy is proposing a rule that would prohibit any foreign-owned bioenergy company from accessing those grant funds. That is not at all provided for in the legislation. We are working with conferees to change that.

But I would think that the Department of Agriculture should, does, have a very strong interest in that program. If you can communicate with the folks at the Department of Energy that their rules may be very damaging to the ability to implement this program. Our cellulosic ethanol plant in Kansas is Abengoa. They are

writing rules that simply prohibit it from being a participant in the program despite the fact that it has been a grant recipient in the past.

I would hope there would be some coordination. I have significant faith in the Department of Agriculture in regard to these programs and would like for you to weigh in on behalf of this issue. I thank you.

Dr. SHAH. I am not aware of that specific rule, but we will take that forward.

I will say in a broader context that the bioenergy research portfolio and making sure that we have a cohesive government-wide approach that includes DOE and multiple parts of USDA, and multiple parts of DOE, has been a top priority for us. We have been in a deep and very effective conversation with them, I believe, at a high level, and we hope to take that forward in a significant manner.

Mr. MORAN. Thank you very much. I raise the topic because I assume the Department of Energy and Department of Agriculture would be headed in different paths on this topic and coordination is an important consideration.

Thank you, Mr. Chairman.

The CHAIRMAN. The chair thanks the gentleman and recognizes the gentleman from Michigan, Mr. Schauer.

Mr. SCHAUER. Thank you and congratulations on your new position.

I am from Michigan. We have the highest unemployment rate in the country. Agriculture also represents the second largest industry in our state and is growing. We also have the second most diverse agricultural economy in the country, so we grow and produce lots of different things. I look forward to getting to know you better and having you get to know us better.

Senator Stabenow is on the Agriculture Committee on the Senate side.

A quick point, and then I want to talk in the time we have about jobs, and I have a specific issue. But I want to let you know that Kellogg Company is based in my district, as is the Kellogg Foundation, actually my hometown of Battle Creek. The CEO of the Kellogg Company is coming to meet with some USDA officials on Monday, as I understand it.

I was with them as they unveiled their expanded research and development facility downtown. But David Mackay is coming specifically to meet with USDA officials about child nutrition and obesity, so if you could watch out for him. I don't know if you will be participating in that or not.

They understand that it is the right thing to do. There are incredible economic opportunities to produce healthy foods, including for kids. It certainly relates to our health care conversation about reducing obesity.

A point about jobs, I asked to be on this Committee because it relates to research and energy, and combining agriculture with economic development. I am pleased to hear your testimony about biomass and bioenergy.

I would put another thing on your radar screen and ask you to sort of comment generally. I am working with a diesel company in

my district it is in Adrian in Lenawee County along the Ohio border. It is called NextDiesel. Obviously that industry has struggled.

They are focusing more and more on research and development and looking for new forms of biomass. They are working with Michigan State University, the best land-grant institution in the country—I am a little biased. But they are wanting to position themselves as a center of energy excellence. I just wanted to ask you to talk about how you can help a state like mine, an industry like that, so that we can create jobs.

Dr. SHAH. Thank you. I appreciate those comments on multiple fronts. Also, I was born in Ann Arbor, Michigan.

Mr. SCHAUER. Go Blue. Not a bad university.

Dr. SHAH. Yes. I thought the Lions-Redskins game wouldn't come up today, but you gave me the opportunity to raise it.

Mr. SCHAUER. I am glad I brought it up.

Dr. SHAH. I will go carefully.

I did want to mention that on child nutrition, that USDA has tremendous unique research assets, the six human nutrition research programs that are part of ARS are our intramural programs they are really world-class assets in this space that are far less recognized and visible than I think they should be.

One of the things we are really doing is trying to refocus and elevate that portfolio of work, expand partnerships with the National Institutes of Health and work with foundation and firms, Kellogg in both contexts, to help do that. So that work has advanced. I would be happy to share more thoughts on that with you over time and hear your input.

In terms of the question around jobs and biodiesel and biomass, just two observations, the first is as part of our work with the Department of Energy and is, in part, rethinking a broader bioenergy research investment strategy for the USDA. We are trying to refocus and rededicate ourselves to biomass and to dedicated feedstocks and to biofeedstocks broadly. That will be a major effort going forward.

I would look forward to learning more about this specific firm and whether it would participate or qualify in some of the small business innovation efforts that have taken place across USDA. I just don't know from that description whether that would be the case, but I am committed to following up on that.

Mr. SCHAUER. Great. Thank you. I will be in touch with you. Thank you so much. Thank you, Mr. Chairman, I yield back.

The CHAIRMAN. The chair thanks the gentleman and reminds the gentleman when we are having hearings for the next farm bill we will take you to State College and to Blacksburg, and we can compare notes.

Mr. SCHAUER. I would be glad to do that.

The CHAIRMAN. The chair now recognizes the gentleman from Nebraska, Mr. Smith.

Mr. SMITH. Thank you, Mr. Chairman. Thank you, Doctor, for taking the time to be here and certainly for your service.

I will start out, and I don't want to put you on the spot, but I do want to see if you might have an update on what the Department is doing regarding Roundup Ready sugar beets. There is a bit of consternation, certainly among my constituents, that it would

appear that the process was abided by and yet that wasn't enough. Could you speak to that?

Dr. SHAH. Certainly. That process is taking place in a different mission area within the Department. I think what would be most effective is for me to take that back and ask them to follow up with you very rapidly in a very more formal way so that you have the information on what they are doing.

I can tell you the general principle, we are very committed. And one of the things I want to focus on is making sure research outputs get into use very rapidly. The reference to Dr. Borlaug is one of the best examples of that. So we recognize the need to have streamlined processes to make that a reality, so that people can start to benefit rapidly from safe, effective, and important research breakthroughs.

Mr. SMITH. Sure, and I appreciate that. I might even touch on the frustration that many have that even though science abounds in many respects, in virtually all respects to some of these things, that doesn't prove to be enough. I guess I urge you to hang in there and keep fighting the good fight.

Another question that I have, to what extent was the National Agricultural Research, Extension, Education and Economics Advisory Board involved in the development of the roadmap that will be released?

Dr. SHAH. Well, I have had a number of specific discussions with the members of the NAREEE board. We are going to be working with them later in October when they have their major meeting here in Washington, D.C.

They have been consulted and involved throughout the process of developing the roadmap. In an equally important manner, we will keep that group incredibly involved, going forward, as we really implement NIFA and make some of the changes that really represent the embodiment of what the roadmap will speak to.

Mr. SMITH. All right. Thank you. Thank you, Mr. Chairman.

The CHAIRMAN. The chair thanks the gentleman and recognizes the gentlewoman from Pennsylvania, Mrs. Dahlkemper.

Mrs. DAHLKEMPER. Thank you, Mr. Chairman, and thank you, Dr. Shah for your testimony today.

In the farm bill we designed and dedicated a new Specialty Crop Initiative. Can you describe the kind of interest you have had in this program thus far, how many applicants did you receive and how many awards were made in the first round?

Dr. SHAH. I can. We have been very focused on implementing the Specialty Crop Initiative, so that is something that we have been very excited about. I don't actually have the number in front of me of the number of applicants we had, but I believe we have taken that forward in a very strong way, and I can get you more information. I just am not looking at the actual numbers.

Mrs. DAHLKEMPER. That is okay. I would appreciate that. When do you expect to announce the second round?

Dr. SHAH. I am not sure. I will get back to you.

I do know we have received a large number of applications in the first round, six times more than the resources that were available, so I would expect there is a lot of interest in the second round.

Mrs. DAHLKEMPER. Yes. If you can get back to me, I would appreciate that.

Dr. SHAH. I certainly will.

Mrs. DAHLKEMPER. The other question is just sort of a general inquiry, as a Member of Congress because we all agree there is great research being done by the USDA. Sometimes I don't think we hear about that good work being done, and the public doesn't hear about it. Hopefully the changes in the farm bill will make us better advocates.

I guess I am asking you what is the single most important thing you think we can do as Members of Congress to better promote agriculture research?

Dr. SHAH. Well, thank you for that question. I think that is a great question. I think to some extent you have already done so much in establishing some of these tools in the farm bill that allow us to do work very differently, going forward.

I think the extent to which you can highlight really big breakthroughs and make it relevant to your every-day constituents and their lives, and help people recognize that we have a food supply that we spend ten or eleven percent of disposable income on food and that frees up a lot of income for other things. We need to deal with some very, very big challenges in agricultural production as the climate changes, that likely will happen over the next several decades, put downward pressure on production.

There are a billion people around the world that don't get enough to eat. U.S. agriculture can play a big, productive and responsive role in that area, and for some of the things that people probably hear about regularly, child obesity, the crisis in that area, bio-energy and the need for us to have real independence as a country. For some of these things that get a lot of attention, agricultural science can really help contribute to and solve some of these problems.

I think I referenced earlier my experience at the Gates Foundation. We had the opportunity to look at a broad number of things we could do, and we settled on agricultural research because of its tremendous capacity to create human welfare gains around the world. I don't think many people are aware of how central agriculture research can be in that capacity.

As we are trying to put in place some really tough and important changes in how we do the work, I think your being a visible and prominent advocate for the value of this work, as it pertains to both our food supply and energy goals, our foreign security goals, as well as our own human health and the health of our kids, that will be a tremendous step forward. So, thank you.

Mrs. DAHLKEMPER. I look forward to continuing to work with USDA. I am a former dietician, so a lot of these nutrition issues and research being done there is obviously of a keen interest to me. Thank you for that.

My last question, because of the news coming out of the Senate today, if climate legislation is enacted, there would be a huge workload ahead in terms of research and implementing it. I guess I am just asking, currently are you taking steps that would be necessary to ensure that we have the methodologies in place to measure and

validate the work that might be going forward, the practices that might be going forward?

Dr. SHAH. Well, thank you, I very much appreciate that question. We have spent a lot of time thinking about that. The answer is yes, especially in the areas you reference of mitigation and how agriculture defined very broadly could participate in potential systems related to emissions and emissions trading.

We have been thinking about how to leverage the GRACEnet system that the Agricultural Research Service has used with some of our extramural efforts to reach universities and create the kind of large-scale standard and protocol-based consortia. So that people would have good answers to simple questions that we really need to have with a great deal of validity, in order to actually facilitate and operate those types of systems and ensure that producers have the ability to participate in those types of systems, going forward.

So that is an area we can add unique value. We have a lot of unique research assets that are already doing it. With some smart and integrated investments we can really make sure that that value is realized very quickly.

Even in a broader context, we are putting together a full climate science strategy for agricultural research that I think will be a good way to connect with partners like the National Science Foundation and others in our efforts to leverage some of their resources in this area as well. On both fronts we are excited to take that work forward and thank you for the question.

Mrs. DAHLKEMPER. Thank you very much. My time is up. I yield back.

The CHAIRMAN. The chair thanks the gentlewoman. Before I recognize the gentleman from Pennsylvania, I will yield to the gentleman from Kansas.

Mr. MORAN. Mr. Chairman, thank you. I always hate to admit that I erred in my comments. But it is actually the Department of Agriculture who is implementing this rule, not the Department of Energy. So my criticism is more directed at USDA than I intended. I was trying to be too nice, Doctor.

I have done my part in raising this topic with you. Again, it is not within your domain, but it is something that needs to be coordinated with the Department of Agriculture. The end result, we could be importing biofuels and processing them and they would receive the grant. But a company that is not owned by United States citizens is not eligible. If you could help us with that I appreciate it.

Thank you for that opportunity, Mr. Chairman, for that courtesy.

The CHAIRMAN. The chair recognizes the gentleman from Pennsylvania.

Mr. THOMPSON. Thank you, Mr. Chairman.

Dr. Shah, thank you for attending today and congratulations on your new position. Just so you know, there are certainly many of us that can affirm the complete relevance of USDA and how important that is. I want to thank you for the research that is being done.

Another fine land-grant university that the Chairman alluded to, Penn State, where with the support of USDA is doing research on dairy profitability, entrepreneurship, milk safety, many projects

like that. USDA is certainly very, very relevant to the entire country.

My first question is what is being done to strike the right balance between plant health and animal health research funding? It seems right now that it is heavily skewed towards crop science as opposed to animal health. What is that right balance that you see?

Dr. SHAH. Thank you for that question. As we go forward, we are really framing a research agenda around a broad range of issues and trying to refocus and narrow the specific number of engagements we have, so that we can deliver breakthroughs in a broad number of areas.

I think, as part of doing that, we have to recognize that animal health is a significant priority and will continue to be in that context. We have a REEO officer dedicated to that specific area. We will continue to have someone dedicated to that area. We will build that, a strong research portfolio in that area going forward.

I am not sure that I can answer, in specific terms, what the specific investments are, and how we should think about the ratio of investment across those two things. But we are, certainly both areas, plant production, animal production link closely to a broad range of priorities and we will continue to, as we go forward.

I am also happy to follow up on a more specific question just in terms of pulling our numbers in those areas and sharing them with you.

Mr. THOMPSON. Great. I appreciate that very much. I have always been a strong advocate for biofuels, a little different area that you had referenced in your written report.

Has USDA been increasing grants within the CSREES for biomass and, also, do you have any comment on how these grants affect biomass from national forests?

Dr. SHAH. Well, yes, we have been increasing our investment, and part of that is through the mandatory programs that have been implemented. Part of that is through our desire, going forward, to make this a big, big part of our research agenda as we take NIFA forward and to use an increasing portion of the AFRI window, the competitive research windows, to work on this problem and deliver real breakthroughs in the science.

A second way that we can elevate and accelerate investment in this area is to successfully partner with, especially, the Department of Energy. By relative standards, we are probably a $\frac{1}{10}$ — $\frac{1}{9}$ or $\frac{1}{10}$ of the total spending in bioenergy, broadly, and the rest of it is mostly DOE. Our goal has been to say can we work to what is the right balance, what are the right priorities and try to leverage some of their resources against our feedstock development and biomass development efforts.

And then, finally, our woody biomass effort is very much a part of it. We are working with the Forest Service on that as well as our ARS facilities and our other efforts. That is certainly a big component of it as we are go forward.

Mr. THOMPSON. I appreciate it. Turning to a more specific issue, in terms of the folks that are out there doing the research and the educators: are ag students, future researchers, educators and extension specialists walking away from the field for lack of public in-

vestment? Is there a trend that you are seeing in terms of researchers?

Dr. SHAH. No, I appreciate that. I see two trends. One is there has been a long-term relative, either flat or declining level of investment in agricultural science in this country, very broadly, for a number of decades. I think that has meant that you tend to see a lot of agricultural scientists doing a number of other things because they get their funding from NIH, or NSF, or someone else. I think that also affects young scientists who then identify priorities and maybe feel that they will have a longer and a more productive career in some other fields.

But I will say that I really believe over the last few years—and I credit the Committee with its leadership with NIFA and the Chief Scientists' and some of the bold steps and also some of other things happening in our world, people are starting to refocus on how central agricultural science is to solving things they hear about every day.

Our food production and the importance of that food production system was highlighted so dramatically last year, and people paid attention. I think, especially, the number of kids I get that send e-mails and want to be interns in our programs has probably gone up pretty significantly. A lot of that is around bioenergy or around health or nutrition. So I am seeing both trends and I hope that we can leverage the more optimistic one and change the make-up of our human resources as we go forward.

Mr. THOMPSON. Well, the increased interest sounds like good news to me. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. The chair thanks the gentleman and recognizes the gentleman from Maryland, Mr. Kratovil.

Mr. KRATOVIL. Thank you, Mr. Chairman.

There was money that was designated for a new Specialty Crop Initiative in the farm bill. Can you describe the interest you have had in that program and how many applications were received and how many awards were granted. What do you expect to announce in the second round?

Dr. SHAH. We have had broad interest in that program. I will certainly be willing to follow up with more detailed information around the number of applicants and the number of awards. I think we had more than \$300 million of total applicants in and were able to make \$50 million in awards against that, and we soon will commence with the second round of investment in that area. But I can follow up with far more detail so that you will have a specific answer to that question.

Mr. KRATOVIL. Okay. You have apparently committed publicly to doubling—forgive me in these questions have already been asked. But you have apparently committed publicly to doubling research in 5 years primarily through AFRI. Do you anticipate the Administration is going to request an amount for that in 2011 that indicates a commitment to that goal?

Dr. SHAH. Yes, I appreciate the question. I am unable to comment on the Fiscal Year 2011 budget specifically.

But I do think that Secretary Vilsack and President Obama and the Science and Technology Policy Group have shown a tremendous

commitment to agricultural science. They see, and I feel very fortunate to be part of an Administration, working for a Secretary who has such a direct and specific commitment to science and to reforming the way that we work, so we are making sure that we are demonstrating that our science is accountable to people very broadly and rapidly in a way that is different from the way it has been in the past. I think both of those things go hand in hand, and we will continue to work with that team to try and get there.

Mr. KRATOVIL. I know this will shock you, but there have been some allegations that our stimulus funding hasn't done anything. I know that is shocking to you.

But ARS received some stimulus money. Has that been spent and, if so, on what?

Dr. SHAH. Most of the ARS stimulus resources were received for specific facilities upgrades, and we can follow up with the specific list of those investments and tracking the progress around each one. I have anecdotally had the opportunity to visit some of our facilities that are benefiting from those resources.

I can say that in some cases, the work is underway. People are being employed to make those upgrades and improvements.

What I am particularly proud of is that the prioritized list of projects are things that are quite important for our ability to have a strong and robust intramural science capacity, going forward. I feel like those resources are well used from a long-term scientific investment perspective and we will follow up with more detail.

Mr. KRATOVIL. That would be good. Do you find that people are aware, or what are we doing to make people aware of the fact that that stimulus money is being used for those purposes?

Dr. SHAH. Well, I will just say I had the opportunity to visit our Philadelphia-based research center, the Eastern Regional Research Center, which is an outstanding program with a tremendously diverse and effective group of scientists. I met with maybe 200 people there, and to a person, they fully recognized and appreciated the fact that the stimulus resource investment in that facility was going to really transform their ability to work together to do great science, to work specifically on issues like food safety and bioenergy and some of the things we have been talking about.

So, certainly at that level, there is a great recognition of it. And we probably could do more, especially in the agricultural science part of this larger question, to make sure that there is a broader and general awareness. So I appreciate your comment.

Mr. KRATOVIL. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Sure. I thank the gentleman.

Dr. Shah, thank you very much for your testimony and the answers that you have given to our questions.

We would now like to welcome our second panel to the table: Dr. D.C. Coston, Vice President for Agriculture and University Extension, North Dakota State University, on behalf of the Board of Agriculture Assembly, Association of Public and Land-grant Universities, Fargo, North Dakota.

Mr. Joseph Layton, Jr., soybean, corn, and grape producer, on behalf of the National Coalition for Food and Agricultural Research, American Soybean Association, and the National Agricultural Re-

search, Extension, Education, and Economics Advisory Board, Vienna, Maryland.

And, Dr. Coston, before you begin, I now yield to the gentleman from Maryland for an introduction.

Mr. KRATOVIL. Thank you, Mr. Chairman, Mr. Ranking Member.

It is my pleasure this morning to welcome Joseph Layton, Jr., from Vienna, Maryland, located in my home district, Maryland's First Congressional District, on the beautiful Eastern Shore. The Eastern Shore, as I am sure you know, has a rich tradition in agriculture, and folks like Mr. Layton have been, and continue to be, a vital part of that tradition.

Farming since 1970, Mr. Layton has traditionally produced soybeans and corn. But, as he mentions in his statement, he has now moved into new territory, producing grapes, which speaks to the sustainability of an opportunity for farming on the Eastern Shore.

Over the years, Mr. Layton has donned many hats in the farming community, making him obviously a very worthy participant in the review of the implementation of research initiatives found in the 2008 Farm Bill.

One of the reasons I wanted to join the Agriculture Committee was to have the opportunity to work with and learn from producers like Mr. Layton, and to promote and preserve farming in Maryland's First Congressional District. So it is an honor for me and privilege to not only represent the farmers in my district but to have Mr. Layton here with us today.

And welcome, sir.

The CHAIRMAN. I thank the gentleman.

And, Dr. Coston, you may begin when you are ready.

STATEMENT OF D.C. COSTON, PH.D., VICE PRESIDENT FOR AGRICULTURE AND UNIVERSITY EXTENSION, NORTH DAKOTA STATE UNIVERSITY, FARGO, ND; ON BEHALF OF BOARD ON AGRICULTURE ASSEMBLY, ASSOCIATION OF PUBLIC AND LAND-GRANT UNIVERSITIES

Dr. COSTON. Thank you, Mr. Chairman, for the opportunity to appear before the Subcommittee.

My testimony today will be in three parts. First, I will describe the major elements of the research title that pertain to land-grant universities. Second, I will outline our view of the progress made to date by USDA. Third, I will discuss what remains to be done, in our opinion, to complete the implementation process.

First, the land-grant provisions in the bill: The most important provision for the land-grant system was creation of the new National Institute of Food and Agriculture, a move designed to elevate food and agricultural science and education to a higher level. To accomplish that objective, the National Institute is to be led by an eminent scientist who will manage both the agency's capacity programs, which provide critical base funding for the 1862, 1890, and 1994 land-grants, and also the competitive programs open to a broader array of institutions.

All CSREES capacity programs were moved to the National Institute and re-authorized. The flagship competitive grants program formerly known as the National Research Initiative was expanded and is now known as the Agriculture and Food Research Initiative.

This program permits the agency to fund a full spectrum of basic, applied, and integrated research, extension, and higher education efforts through competitively awarded grants.

Title VII also established four new National Institute programs that provide competitive grants for organic agricultural research, specialty crops research and extension, biomass R&D, and support for beginning farmers and ranchers. These four programs are authorized to receive both mandatory funding and appropriated sums.

Second, implementation progress: USDA and CSREES issued, and the land-grant system responded to, three formal requests for comments. We also provided written recommendations on another Title VII matters. Rather than reiterate all our suggestions, I ask that the full text of our comments be entered into the hearing record.

The CHAIRMAN. Without objection.

Dr. COSTON. Thank you.

[The document referred to is located on p. 29.]

One of the documents I have included for the record makes recommendations on the structure of the Under Secretary's Research, Education and Extension Office. As noted in the written statement, we were pleased by the quick acquisition to get the six division chiefs in place and the highly qualified individuals who were selected. However, the law specifies that the REEO office may contain as many as 30 individuals. And given the importance of the tasks at hand and the anticipated workload, we believe it would be wise to provide each division chief with at least one deputy.

Third, the unfinished agenda: Mr. Chairman, my written testimony describes several areas that still need attention. Let me make six summary observations.

One, the National Institute must become a fully functioning agency as quickly as possible after October 1st. Otherwise, the agency could be at a significant disadvantage as its Fiscal Year 2011 budgetary priorities are reviewed and finalized by OMB.

Two, we are pleased that Dr. Roger Beachy will become Director of the National Institute on October 5th. We look forward to collaborating with him and Dr. Shah as they finalize the National Institute structure and address other pressing start-up issues.

Three, if Dr. Shah and Dr. Beachy move forward with what we understand to be a four-institutes model, all elements of the land-grant system—experiment stations, cooperative extension services, academic programs, international programs, and minority-serving institutions—must be well-represented within each of these institutes.

In addition, the structure must clearly and unequivocally reflect the fact that extension and education are key missions of the entire agency. And let me reiterate that a focus on family, youth, and community is vital for the future of rural America.

Four, that the four new research and extension programs with mandatory funding are accomplishing precisely what this Committee intended, and the mandatory funding must continue to be protected.

Five, the Committee must make permanent the legislative language included within recent agricultural appropriations bills, permitting universities to count their unrecovered indirect costs

against the matching requirements in certain competitive programs, such as the Specialty Crops Research Initiative.

Six, the National Institute will only reach its full potential through greatly enhanced funding. Therefore, we strongly urge the Members of this Committee to continue working with Members of the Appropriations Committee to ensure that all National Institute programs are funded at their full authorized levels.

Mr. Chairman, let me thank you, Ranking Member Goodlatte, and your capable staff—Anne Simmons, Nona Darrell, and John Goldberg—for helping to create this unique opportunity to advance food and agricultural research, education and extension.

Creation of the National Institute represents a once-in-a-generation opportunity to advance and expand food and agricultural science and education within the United States and thereby improve human health, agricultural productivity, and rural vitality. We must all rise to the challenge and help the USDA leadership develop a well-structured and adequately funded National Institute of Food and Agriculture.

Thank you.

[The prepared statement of Dr. Coston follows:]

PREPARED STATEMENT OF D.C. COSTON, PH.D., VICE PRESIDENT FOR AGRICULTURE AND UNIVERSITY EXTENSION, NORTH DAKOTA STATE UNIVERSITY, FARGO, ND; ON BEHALF OF BOARD ON AGRICULTURE ASSEMBLY, ASSOCIATION OF PUBLIC AND LAND-GRANT UNIVERSITIES

Mr. Chairman and Members of the Subcommittee, I am pleased to appear before you on behalf of the Board of Agriculture Assembly (BAA) of the Association of Public and Land-grant Universities (APLU) to discuss implementation of the Research Title of the Food, Conservation, and Energy Act of 2008 (P.L. 110–246).

The BAA's Farm Bill Committee, which I chair, and many individuals throughout the land-grant system were very involved in helping to craft Title VII of the 2008 Farm Bill, which reshaped the USDA science structure and re-authorized the many research, extension, and teaching programs that sustain land-grant universities and related institutions in all 50 states, the District of Columbia, and the insular areas.

My testimony today is in three parts. First, I will briefly describe the major elements of the Research Title that pertain to land-grant universities. Second, I will outline our view of the progress made by USDA to implement these provisions. Third, and finally, I will discuss what remains to be done to fulfill the goals set forth by the land-grant system in our CREATE–21 effort to “Create Research, Education, and Teaching Excellence for the 21st Century,” which—as you know—formed the basis for much of the Research Title.

Land-Grant Provisions in the 2008 Farm Bill

Without a doubt, the most important provision for land-grant universities was the creation of the new National Institute of Food and Agriculture (NIFA). Building upon the success of the joint Federal-state partnership funded through and overseen by the Cooperative State Research, Extension, and Education Service (CSREES), NIFA will elevate food and agricultural science and education to a higher level.

To accomplish that objective, NIFA will be led by an eminent scientist appointed by the President to a 6 year term. The NIFA Director will manage the agency's capacity programs which provide critical base funding for the 1862, 1890, and 1994 land-grant institutions and the competitive programs which fund research, extension, and education efforts at land-grants, as well as other public and private universities.

The NIFA Director is to be aided and guided in this work by the USDA Under Secretary for Research, Education, and Economics (REE) and his high-level team within the newly created Research, Education, and Extension Office (REEO). The REE Under Secretary, who is now the Chief Scientist at USDA, is charged with producing a USDA Science Roadmap and coordinating and managing the Department's extramural programs funded primarily through NIFA and the intramural programs conducted by the Agricultural Research Service (ARS) and the Economic Research Service (ERS).

All of the tried and true capacity programs previously managed by CSREES were moved to NIFA and re-authorized for the 5 year life of the bill. The flagship competitive grants program at CSREES—the National Research Initiative—was expanded significantly and is now known as the Agriculture and Food Research Initiative (AFRI). This key program permits the agency to fund a full spectrum of basic, applied, and integrated research, extension, and higher education efforts through competitively-awarded, peer-reviewed grants.

In addition to AFRI, the 2008 Farm Bill authorized four new NIFA programs that provide competitive grants for organic research, specialty crops research and extension, biomass R&D, and efforts that help beginning farmers and ranchers. These four programs are authorized to receive mandatory funding and appropriated sums. (Only the mandatory funding has been provided to date.)

Implementation Progress

Overall, I would observe that USDA has a good record when it comes to implementation of the most significant elements of Title VII. In this portion of my testimony, I will describe the accomplishments made over the last 16 months, leaving a discussion of the unfinished items until the next section.

Before the Bush Administration left office, Dr. Gale Buchanan, then REE Under Secretary, assumed the mantle of USDA Chief Scientist, began work on the Roadmap, and named a distinguished group of individuals as directors of the six REEO divisions. Dr. Buchanan and Dr. Colien Hefferan, the CSREES Administrator, also moved quickly to make the first increment of mandatory funding under the Specialty Crops Research Initiative available for competition by September 30, 2008. Finally, USDA Secretary Ed Schafer issued an implementation memorandum on October 1, 2008, directing that the NIFA Director is to report to the REE Under Secretary and not directly to the Secretary. (The language in Title VII stated that the Director was to report to the Secretary “or his designee.”)

The land-grant system was generally supportive, but not entirely satisfied by these decisions. We would have preferred, for example, that the NIFA Director report directly to the Secretary, but we understand the absolute importance of close collaboration between the REE Under Secretary and the NIFA Director to ensure that the agency successfully achieves the ambitious goals established for it by this Subcommittee.

With respect to the REEO staffing, we were pleased by the quick action to get the six division chiefs in place and the high-caliber individuals who were selected. However, the law specifies that the REEO may contain as many as 30 individuals and—given the importance of the tasks at hand and the anticipated work load—we believe it would be wise to provide each division chief with at least one deputy. Such a modest expansion could prove to be extremely beneficial, especially if the Administration moves forward, as has been rumored, to return the initial REEO division chiefs to the agencies from whence they came and to name distinguished scientists from outside USDA to these six positions under authority of the Intergovernmental Personnel Act.

In addition to these actions, CSREES issued three formal requests for comment on programs created or changed by the 2008 Farm Bill. The BAA provided written comments and suggestions in each such instance and informal comments on other matters and rather than reiterate all of that here I ask that the full text of these comments be entered into the hearing record.

The Unfinished Agenda

1. NIFA Establishment. Title VII requires that NIFA is to be established on or before October 1, 2009. We had anticipated that the Administration would move ahead with establishment before the statutory deadline, but given the Presidential transition, the press of other business, and the hundreds of tasks involved in a bureaucratic restructuring, such optimism was probably unrealistic.

Nonetheless, we urge you to communicate to the Administration the importance of making NIFA a fully functioning agency as quickly as possible after October 1. The final quarter of the calendar year is an especially busy and critical period for development of the Federal budget and unless the agency and its director are “up and running,” NIFA could be at a significant disadvantage as its budgetary priorities are reviewed and finalized by the Office of Management and Budget (OMB).

2. NIFA Director. Selection of the first NIFA Director is extremely important to the future of the agency (especially in these formative years) and we welcome the news that Dr. Roger N. Beachy, the founding president of the Donald Danforth Plant Science Center, will become the NIFA Director on October 5. Dr. Beachy is an extremely well-qualified scientist with impeccable credentials, proven management skills, a broad vision, and an open mind. We look forward to collaborating

closely with him and Dr. Shah as they finalize the NIFA structure and address other pressing start-up issues.

3. NIFA Structure. Representatives from the land-grant system have had several meetings with Dr. Shah since his confirmation as REE Under Secretary about the NIFA structure. Through these discussions we have learned that the Under Secretary and Dr. Beachy are considering an organization comprised of four divisions (or “Institutes”) each of which will focus on broad subjects: (1) plant and animal production; (2) human nutrition and health; (3) food safety; and (4) communities and human capacity development.

We believe that such a structure could prove advantageous, provided that all elements of the land-grant system—experiment stations, cooperative extension services, academic programs, international programs, and minority-serving institutions—are well represented within each of the divisions and that scientific outreach and education are key missions of the whole agency.

The structure of NIFA, and the leadership of the Director, are vital if we are going to achieve what this Subcommittee envisioned with the creation of NIFA (as set forth in the Statement of Managers), namely that: “NIFA will be commensurate in stature with other grant-making agencies across the Federal Government, such as the National Institutes of Health and the National Science Foundation.”

4. Mandatory Programs. The land-grant system is very pleased that congressional and executive branch decision-makers have (thus far) honored the mandatory funding provided to NIFA for the four programs mentioned previously. This was *not* the case for the previous mandatory program—the Initiative for Future Agriculture and Food systems (IFAFS)—which was routinely “raided” by either the Appropriations Committees or OMB. These new competitively-awarded and narrowly-targeted programs are accomplishing precisely what this Committee intended and must be protected. Of course, I would be remiss if I did not mention that all of these programs could benefit by the appropriation of additional sums (as provided in the statute), but protecting the mandatory monies remains our main priority.

5. Unrecovered Indirect Costs. We now have experience with 2 years of funding for one of these four programs, the Specialty Crops Research Initiative. Based upon this experience we recommend that the Committee consider making permanent the legislative language included within the last two Agriculture Appropriations bills permitting universities to count their unrecovered indirect costs against the matching requirements set forth in the statute for this and the other three programs with mandatory funding.

6. REEO Structure and Operations. We made several REEO recommendations that have not yet been implemented. We reiterate those recommendations here, because we believe they still have merit:

- Working as a team, the Under Secretary, Division Chiefs, and other REEO personnel must enhance programmatic integration and eliminate administrative duplication among NIFA, ARS, ERS, the U.S. Forest Service, and the National Agricultural Statistical Service, and maximize allocation of staff resources among these agencies.
- The Division Chiefs should utilize the land-grant system’s education and extension capability to deliver research results produced by all agencies within USDA to the Department’s various stakeholders and customers.
- The Division Chiefs should assist the Under Secretary in identifying, prioritizing, and addressing continuing and emerging agricultural research, education, and extension needs, including funding requirements.
- Each REEO division should be staffed by personnel with professional experience in the division’s respective mission area(s).
- In addition, personnel with families, youth, and community development professional experience should be represented throughout the REEO staff to ensure integration of these functions into the operations of the individual divisions and the Research, Education, and Economics mission area as a whole.

7. NIFA Funding. The final issue that I would touch upon this morning is the matter of funding for NIFA’s capacity and competitive programs. When the 2008 Farm Bill was under consideration, I often heard it said that NIFA would be a “ves-sel” ideally suited to receive increased Federal funding. That remains as true today as 2 years ago, even though there have been some missed opportunities along the way, such as the one-time increase of \$200 million for AFRI in the American Recovery and Reinvestment Act that we sought but were not able to get included in the final bill.

Clearly, this new agency will only reach its full potential through greatly enhanced funding. Therefore, we strongly urge the Members of the Agriculture Committee to see the efforts of their good work in the research title of the farm bill through to fruition by working with Members of the Appropriations Committee to ensure that all NIFA programs are funded at their full, authorized levels.

Concluding Remarks

Mr. Chairman, let me thank you on behalf of the land-grant system for your leadership in drafting Title VII of the 2008 Farm Bill and your continued interest in the implementation of the statute as evidenced by today's hearing.

Creation of NIFA represents a once-in-a-generation opportunity to advance and expand food and agricultural science and education within the United States and thereby improve human health, agricultural productivity, and rural development. We must all rise to the challenge and help the USDA leadership develop a well-structured and adequately funded National Institute of Food and Agriculture.

To again quote from the Statement of Managers, "The Managers intend for NIFA to be an independent, scientific, policy-setting agency for the food and agricultural sciences, which will reinvigorate our nation's investment in agricultural research, extension, and education."

We look forward to working closely with you, Under Secretary Shah, Director Beachy, and our mutual stakeholders to meet the high standards you set with the creation of NIFA.

Thank you again for the opportunity to testify this morning. I would be delighted to answer any questions.

ATTACHMENT 1

Oral Statement of D.C. Coston

Thank you, Mr. Chairman, for the opportunity to appear before the Subcommittee.

My testimony today will be in three parts. First, I will describe the major elements of the Research Title that pertain to land-grant universities. Second, I will outline our view of the progress made to date by the USDA. Third, I will discuss what remains to be done in our opinion, to complete the implementation process.

First: Land-Grant Provisions in the Bill

The most important provision for the land-grant system was creation of the new National Institute of Food and Agriculture, a move designed to elevate food and agricultural science and education to a higher level. To accomplish that objective, the National Institute is to be led by an eminent scientist who will manage both the agency's capacity programs which provide critical base funding for the 1862, 1890, and 1994 land-grants and also the competitive programs open to a broader array of institutions.

All CSREES capacity programs were moved to the National Institute and re-authorized. The flagship competitive grants program—formerly known as the National Research Initiative—was expanded and is now known as the Agriculture and Food Research Initiative. This program permits the agency to fund a full spectrum of basic, applied, and integrated research, extension, and higher education efforts through competitively-awarded grants.

Title VII also established four new National Institute programs that provide competitive grants for organic agricultural research, specialty crops research and extension, biomass R&D, and support for beginning farmers and ranchers. These four programs are authorized to receive both mandatory funding and appropriated sums.

Second: Implementation Progress

USDA and CSREES issued and the land-grant system responded to three formal requests for comments. We also provided written recommendations on other Title VII matters. Rather than reiterate all of our suggestions, I ask that the full text of our comments be entered into the hearing record.

One of the documents I've included for the record makes recommendations on the structure of the Under Secretary's Research, Education, and Extension Office. As noted in the written statement, we were pleased by the quick action to get the six division chiefs in place and the highly qualified individuals who were selected. However, the law specifies that the REEO may contain as many as 30 individuals and—given the importance of the tasks at hand and the anticipated work load—we believe it would be wise to provide each division chief with at least one deputy.

Third: The Unfinished Agenda

Mr. Chairman, my written testimony describes several areas that still need attention. Let me make six summary observations:

1. The National Institute must become a fully functioning agency as quickly as possible after October 1. Otherwise, the agency could be at a significant disadvantage as its FY 2011 budgetary priorities are reviewed and finalized by OMB.
2. We are pleased that Dr. Roger Beachy will become Director of the National Institute on October 5. We look forward to collaborating with him and Dr. Shah as they finalize the National Institute's structure and address other pressing start-up issues.
3. If Drs. Shah and Beachy move forward with what we understand will be a "Four Institutes" model, all elements of the land-grant system—experiment stations, cooperative extension services, academic programs, international programs, and minority-serving institutions—must be well represented within *each* of these Institutes. In addition, the structure must clearly and unequivocally reflect the fact that extension and education are key missions of the *entire* agency. And, let me reiterate that a focus on families, youth, and communities is vital for the future of rural America.
4. The four new research and extension programs with mandatory funding are accomplishing precisely what this Committee intended and the mandatory funding must continue to be protected.
5. The Committee must make permanent the legislative language included within recent Agriculture Appropriations bills permitting universities to count their unrecovered indirect costs against the matching requirements in certain competitive programs, such as the Specialty Crops Research Initiative.
6. The National Institute will only reach its full potential through greatly enhanced funding. Therefore, we strongly urge the Members of this Committee to continue working with Members of the Appropriations Committee to ensure that *all* National Institute programs are funded at their *full, authorized levels*.

Mr. Chairman, let me thank you, Ranking Member Goodlatte, and your capable staff—Anne Simmons, Nona Darrell, and John Goldberg—for helping to create this unique opportunity to advance food and agricultural research, education, and extension.

Creation of the National Institute represents a once-in-a-generation opportunity to enhance and expand food and agricultural science and education within the United States and thereby improve human health, agricultural productivity, and rural vitality. We must all rise to the challenge and help the USDA leadership develop a well-structured and adequately funded National Institute of Food and Agriculture.

Thank you.

ATTACHMENT 2

An Approach To Developing the REE Roadmap for Research, Education and Extension

Section 7504 of the Food Conservation and Energy Act (FCEA) requires the development of a roadmap for agricultural research, education, and extension that (1) identifies current trends and constraints and (2) identifies major opportunities and gaps that no single entity within USDA would be able to address individually. The roadmap is to involve interested parties from the government and nongovernmental entities as well as the NAREEE Advisory Board; and is to incorporate roadmaps and other planning documents made available by other Federal entities, agencies or offices. Among other requirements, this roadmap is to be used to set the research, education and extension agenda of the Department of Agriculture as well as to describe recommended funding levels.

The Under Secretary for REE is to initiate the development of the roadmap within 90 days of passage to the 2008 Food Conservation and Energy Act and implement and report on the roadmap within 1 year of commencing work. This is a daunting task given the complexity of the REE mission area and the agencies and external partners who work to meet various programmatic goals.

Programs supported by taxpayers should be implemented for the ultimate benefit of those same taxpayers and for society in general. Consequently, setting an agenda for implementation of these programs appropriately involves recognition of the status of these constituencies and the environmental trends and opportunities that are

likely to impact them in relationship to the mission of the Department and its partners.

Suggested Process

The land-grant university community encourages the Under Secretary/designee to appoint a Roadmap Steering Committee (RSC) to guide development of the Roadmap. While it is recognized that developing the Roadmap is the prerogative of the Department, it is expected that input and assistance will be sought from representatives of key partner groups, including land-grant university teaching, research and extension participants and that subsets of the RSC, along with assistance of partner representatives will staff these efforts. This approach and those detailed below will assure the development of a robust roadmap with broad support. Based on these expectations, the following procedures are suggested.

Review of Existing Plans

The RSC will collect current strategic plans, roadmaps and similar documents for the components of the agricultural research, extension and education system, from both within the Department and from partner entities.

These background documents will be reviewed to ascertain key trends, constraints and opportunities on which the documents are based. These may include, for example, changing demographics, significant social changes, advances in science and technology, and changes in information-seeking behavior of the Department's beneficiaries. The RSC will synthesize and summarize the key trends, constraints and opportunities identified in these background documents, list them and provide a brief description of each.

These background documents reflect societal needs for research, Extension and education at the point in time the documents were created.

Recognizing these needs, themes for a USDA-REE science roadmap that are inclusive of the core organizations of intramural and extramural research, education, extension and outreach education that includes science-based knowledge and technology transfer, and human capacity development are essential.

Gap Analysis

The RSC will conduct a "gap analysis" to identify additional trends, constraints and opportunities that may not be included in the foundation documents. For example, the relationship of food and energy and the sustainability of both may not be adequately portrayed in the documents.

In the interest of time, the "gap analysis" could be conducted as follows.

- a. The base document (synthesized list with brief descriptions) could be provided on-line with a request that respondents identify additional trends, also with brief descriptions of the trends and how they relate to the mission of the Department and its partners.
 - i. Within the Department, responses could be solicited and summarized by the various agencies, *i.e.*, ARS, CSREES, ERS, FS, NASS.
 - ii. With the land-grant university partners, responses can be solicited and summarized by the various Board on Agriculture (BAA) Committees, *i.e.*, ESCOP, ECOP, ICOP, ACOP, and AHS. This process will ensure that all entities, including the 1890s, 1994s and Non-Land-Grant Colleges of Agriculture are fully engaged in this process.
 - iii. With NAREEE Advisory Board, responses could be solicited and summarized by the Board executive. The advisory board provides some representation from nongovernmental entities, as prescribed by statute.
- b. Since the NAREEE Advisory Board may not adequately represent other key nongovernmental stakeholders, *e.g.*, youth, families and rural communities, BAA staff can coordinate the collection of responses from the Board on Human Sciences and from 4-H representatives.
- c. The RSC (or designated working group) will integrate the gap analysis data collected with data gleaned from the foundation documents. The result will be a draft white paper focused on Trends, Constraints, Opportunities and Gaps related to implementation of the CFEA of 2008 which will inform the identification of REE goals.

Using themes to develop a draft Roadmap

The elucidation of Trends, Constraints, Opportunities and Gaps will provide critical insights into cross cutting *themes* which should inform the USDA research, education and extension agenda. The RSC would develop a "Conceptual Framework" document which broadly, but succinctly, describes those themes identified from the

above. The “Conceptual Framework” would serve as the guiding document for the development of the REE Roadmap. These broad themes would guide the RSC in identification of underlying issues, and subsequently, writing groups which would more fully develop the background information on each issue including goals and objectives.

Each theme would be led by a small goal development team (GDT), led by a member of the Roadmap Steering Committee, which would assume responsibility for the development of an overarching white paper or plan. Each theme/goal would be supported by a series of underlying issues as indicated above.

Each underlying issue would be addressed through the development of a short 4–5 page white paper crafted by small writing team comprised of appropriate contributors. These teams would have broad representation so as to gain the best thinking and input. Writing teams would be comprised of representatives of USDA ARS, ERS, CSREES, university researchers, Extension, and academic programs, etc. Each writing team would obtain additional input on their particular topic as needed.

The GDT reviews the issue papers looking for cross-cutting themes to create a draft goal statement(s) with underlying details. The resulting goal statements would be shared with the respective contributing writing teams for comments with a short turnaround.

(Note: An initial set of potential themes with several underlying issues based on the Food, Conservation and Energy Act (FCEA) of 2008 and existing planning documents is shown in *Appendix A*. For brevity only a few underlying themes have been provided.)

Drafting the Roadmap

Since the goal statements will have been developed by separate development teams, it is essential that the RSC employ an editor who will synthesize a draft Roadmap from the themes/goals documents.

Roadmap Steering Committee or REE obtains input on the draft Roadmap and modifies as appropriate.

Budget Implications

The Food Conservation and Energy Act of 2008 also requires that the Roadmap “(5) describes recommended funding levels for areas of agricultural research, education, and extension, including—

- (A) competitive programs;
- (B) capacity and infrastructure programs, with attention to the future growth needs of—
 - (i) small 1862 Institutions, 1890 Institutions, and 1994 Institutions;
 - (ii) Hispanic-serving agricultural colleges and universities;
 - (iii) NLGCA Institutions; and intramural programs at agencies within the research, education, and economicsmission area”

It is essential to maintain and grow capacity funding of the LGU system to respond to current and emerging needs. There is also need to enhance the capacity at 1890, 1994 and small 1862 institutions and to provide resources for the Non-Land-Grant Colleges of Agriculture to meet new and emerging needs. Finally, there is need to enhance the pool of resources available in the Agriculture and Food Research Initiative within the National Institute, with the proper balance between basic, applied and integrated programs.

APPENDIX A: AN EXAMPLE OF THEMES AND ISSUES

An initial set of themes can be drawn from existing plans, the Food, Conservation and Energy Act (FCEA) of 2008, and input from the gap analysis. The linkages between USDA research, education and extension and the Land-grant universities are essential for a successful science roadmap for USDA–REE.

Example themes which are consistently present in relevant planning documents are displayed under the general heading of “Putting Science to Work in a Time of Rapid Change.” Several brief topics are provided under the eight overarching themes, each of which in this example would serve as the basis for short discussion white papers. These papers would inform the corresponding GDT in its development of a goal statement(s). It is expected that there would be additional issues under each of the broad themes.

Putting Science to Work in a Time of Rapid Change **Agriculture in a Changing Global Landscape**

- Sustainable plant and animal systems
- Competitiveness and profitability from farm to table
- Changing global economy
- Adjustments to global climate changes

Safe and Abundant Food for America

- Food safety
- Food production
- Communities and food systems

Energy and Materials from America's Renewable Natural Resources

- Initializing innovation on farms and in industry
- Natural resources use and conservation

Sustaining our Environment

- Water, land and air for the future
- Sustainable agricultural systems

Enhancing Science Capacity and Adoption of Technology

- Pre-college programs, K–12 STEM, enhancing undergraduate education and research and graduate education
- Addressing needs for future faculty and other professionals
- Youth as leaders of change
- Formal and informal education and human capacity development
- Using information and communications technology to expand learning and engagement
- Using the education and extension systems to enhance adoption of research-based technologies by users

Attacking Worldwide Hunger

- Enhancing the capacity of others
- Securing America

Individual, Family and Community Resilience

- Security, safety and health
- Entrepreneurship and small business development
- Families that work in today's society
- Human nutrition

Strengthening International Connections

- Fellowships and student training
- Study abroad, scientific exchange programs
- Building international capacity on campuses

APPENDIX B: BACKGROUND INFORMATION SOURCES

Legislation

Food, Conservation, and Energy Act of 2008.

USDA Agency Documents

USDA Strategic Plan 2005–2010: <http://www.ocfo.usda.gov/usdasp/usdasp.htm>.
 CSREES Strategic Plan 2007–2012: http://www.csrees.usda.gov/about/offices/pdfs/csrees_strat_plan.pdf.

ERS Strategic Plan 2007–2012: http://www.ers.usda.gov/AboutERS/ERSstrategicPlan2007_2012.pdf.

ARS Strategic Plan 2006–2011: <http://www.ars.usda.gov/SP2UserFiles/Place/00000000/ARSStrategicPlan2006-2011.pdf>.

NASS Strategic Plan 2006–2011: http://www.nass.usda.gov/About_NASS/Strategic_Plan/spnass2011.pdf.

REE Energy Sciences Strategic Plan: http://www.ree.usda.gov/news/bead/USDA_REE_strat_plan.pdf.

Forest Service Strategic Plan 2007–2012: <http://www.fs.fed.us/publications/strategic/fs-sp-fy07-12.pdf>.

Cooperative Extension

Strategic Opportunities for Cooperative Extension (2008) <https://www.nasulgc.org/NetCommunity/Document.Doc?id=369>.

Cooperative Extension in 21st Century (2002) <https://www.nasulgc.org/NetCommunity/Document.Doc?id=152>.

eXtension Strategic Roadmap http://about.extension.org/mediawiki/files/5/57/EXtension_Strategic_Roadmap_FINAL_07-28-08.pdf.

eXtension executive summary: http://about.extension.org/mediawiki/files/9/9b/EXtension_Strategic_Roadmap_Executive_Summary_FINAL_07-28-08.pdf.

Experiment Stations

ESCAP Science Roadmap Documents: <http://escop.ncsu.edu/Infobook.cfm?upperlevel=18>.

2002 Roadmap: http://escop.ncsu.edu/workroomattach/23_roadmap2.pdf.

2006 Roadmap update: http://escop.ncsu.edu/workroomattach/20_Roadmap%20Update_2006,%20read%20version.pdf.

1890 Agricultural Research Directors

http://www.umes.edu/ARD/Default.aspx?id=11228#Strategic_Five_Year_Goals.

Academic Programs

Under development.

International Programs

Under development.

ATTACHMENT 3

Comments & Recommendations

To: COLIEN HEFFERAN, *Administrator*, CSREES

From: D.C. COSTON, *Chair*, the Farm Bill Implementation Assistance Committee of NASULGC's Board on Agriculture Assembly

Date: September 24, 2008

Cc: The Honorable GALE BUCHANAN, *Under Secretary for Research, Education, and Economics*

Re: Comments on Establishment of the Agriculture and Food Research Initiative (AFRI) CSREES-2008-0002

The Cooperative State Research, Education, and Extension Service (CSREES) published a "request for stakeholder input" in the August 29, 2008 *Federal Register* on the newly created Agriculture and Food Research Initiative (AFRI) authorized in Sec. 7406 of the Food, Conservation, and Energy Act of 2008 (P.L. 110-246). The following comments are presented by the Farm Bill Implementation Assistance Committee on behalf of the Board on Agriculture Assembly of the National Association of State Universities and Land-Grant Colleges (NASULGC). Like the *Federal Register* announcement, these comments and recommendations are preliminary in nature and our Committee will provide a more in-depth response when the formal AFRI rule-making takes place.

Comments & Recommendations:

1. Growth in Funding. AFRI, like the National Research Initiative (NRI) which it replaced, is primarily a "research" initiative. (*Prima facie* evidence can be found in the name itself.) However, the law now permits the agency to also make competitive grant awards to stand-alone "extension" and "higher education" projects. Significant increases in AFRI funding will, therefore, be necessary to support such new "stand-alone" grants while continuing to fund fundamental and applied research projects and those that integrate research with extension and/or higher education. *We urge the Department to recognize this need via increased annual budget/appropriations requests.*

2. Integrated Grants. The basic authorization of appropriations for AFRI states that "not less than 30 percent [of the funds] shall be made available for integrated research pursuant to section 406 of the Agricultural Research, Extension, and Education Reform Act of 1998." *This language should not be interpreted to mean that the range of "integrated" grants to be funded under AFRI be limited only to the specific areas currently funded under the section 406 authority. A broader interpretation comports with congressional intent.*

3. Eligible Institutions. Institutions eligible to receive AFRI grants include “other Federal agencies.” *We suggest that this eligibility be used to encourage collaborative grants between these Federal agencies and eligible non-Federal entities. After all, these other Federal agencies already receive substantial appropriations of their own.*

4. Review Panels. Sec. 7406 states that “a system of peer and merit review” shall be used to “determine the relevance and merit of [AFRI] proposals.” *We recommend that peer review panels should be constituted according to the nature of the proposals to be reviewed. For example, Cooperative Extension faculty should be recruited and strongly encouraged to serve on review panels for extension and integrated proposals.*

5. Priority-Setting Among Program Areas. Specific priority needs change over time, sometimes rapidly. *Therefore, CSREES should continue to actively seek and carefully consider specific priorities identified by a diverse set of stakeholders. These should include sources from the private for-profit and nonprofit sectors, academia, state and Federal agencies, and consumers in general.*

6. Ten-Year Grants. It is well known that certain priority areas can only be adequately addressed by long-term support (e.g., plant and livestock breeding, ecosystem studies, rural entrepreneurship, public education, etc.). *AFRI's new 10 year grant authority should be used whenever appropriate to fund these crucial activities. The opportunity for long-term (up to 10 year) grants should not be restricted to specific program areas, but should be made available throughout AFRI.*

7. Additional Priority Areas. Sec. 7406 refers to six major priority areas with between four and eight very specific sub-areas that should be addressed through this initiative. The six priority areas are: (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. *Unless prohibited by statute, we recommend the Department add an additional priority area that focuses on families, youth and communities. Additionally, as established priorities are implemented, traditional land-grant customers (producers, consumers, families, youth, and communities) need to be included in the scope of all priority areas.*

8. Recognition of the Partnership. It is important to recognize the local, state, and Federal partnership that undergirds the land-grant system. Additionally, effective land-grant programs that ultimately lead to positive behavioral change require a long-term research, education, and extension commitment that operates on a continuing and engaging basis. *This principle should be considered in stand-alone and integrated RFAs and in criteria for evaluating proposals.*

9. Allocation of Funds. Sec. 7406 (b)(6) of P.L. 110–246 reads as follows:

“(6) SPECIAL CONSIDERATIONS.—In making grants under this subsection, the Secretary may assist in the development of capabilities in the agricultural, food, and environmental sciences by providing grants—

“(A) to an institution to allow for the improvement of the research, development, technology transfer, and education capacity of the institution through the acquisition of special research equipment and the improvement of agricultural education and teaching, except that the Secretary shall use not less than 25 percent of the funds made available for grants under this subparagraph to provide fellowships to outstanding pre- and postdoctoral students for research in the agricultural sciences;

“(B) to a single investigator or co-investigators who are beginning research careers and do not have an extensive research publication record, except that, to be eligible for a grant under this subparagraph, an individual shall be within 5 years of the beginning of the initial career track position of the individual;

“(C) to ensure that the faculty of small, mid-sized, and minority-serving institutions who have not previously been successful in obtaining competitive grants under this subsection receive a portion of the grants; and

“(D) to improve research, extension, and education capabilities in states (as defined in section 1404 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3103)) in which institutions have been less successful in receiving funding under this subsection, based on a 3 year rolling average of funding levels.”

We recommend that the Department fulfill these requirements, create the mechanisms to do so, and allocate a pre-determined amount of funding. Additionally, these special considerations should be included within any RFA.

10. Research Programs

- *In this transition year from the National Research Initiative (NRI) to the new AFRI, now is not the time to reduce the investment in fundamental research currently supported within the NRI.*
- *Although Sec. 7406 draws a distinction between “fundamental” and “applied” research, these are two end-points along a continuum of activity and proposals that fall elsewhere on that continuum (or otherwise link fundamental and applied research) should be encouraged.*
- *Priority areas that require sustained long-term activity should be funded as 10 year grants.*
- *RFA program areas should generally be broad enough in scope to allow scientists maximum creativity and flexibility in developing proposals.*

11. Extension Programs

- *Stand-alone extension activities should be encouraged and funded under AFRI.*
- *RFAs for extension activities should include review criteria appropriate for extension.*
- *Proposals that utilize modern information technologies to share courseware and / or noncredit courses and curricula across institutions should be encouraged.*
- *RFA program areas should be broadly focused and emphasize continuous interaction with customers and multi-state programming.*
- *In determining priority areas, we encourage consideration of not only subject or disciplinary areas (e.g., plant and animal systems), but also inclusion of strategic mechanisms that can advance the development and application of science-based information in all subject areas that may lead to improved economic and social welfare of America’s citizens. Emphasis should be placed on supporting the dissemination and adoption of technologies through effective, multi-state, collaborative initiatives.*

12. Education Programs

- *Proposals that enhance professional workforce development in areas of significant need as identified by the private sector (e.g., fruit and vegetable production, plant breeding, and rural sociology), should be encouraged.*
- *Emphasis should be placed not only on activities that enhance undergraduate and graduate enrollment in the priority areas, but also on those that increase interest in these career paths among K–12 students. A revitalization of summer apprenticeships for rising junior and senior high school students as well as opportunities for “summer research sabbaticals” or “summer science teacher workshops” for high school teachers should be instituted.*
- *Proposals that utilize modern information technologies to share courseware and / or courses and curricula across institutions should be encouraged. Emphasis should be given to the establishment of regional centers of academic excellence in specific discipline areas (where the continued presence of programmatic excellence in each and every institution can not be justified) for the preparation of a new scientific cadre needed to succeed the “baby-boom” generation that is reaching retirement.*
- *Proposals that utilize and broaden the applications of new cognitive knowledge for the enhancement of learning should be encouraged.*
- *National Need Fellowship programs should be expanded and integrated in a manner that would link multidisciplinary and disciplinary education with discovery research.*

13. Integrated Programs

- *Integrated activities should form a foundation across all AFRI program areas and a separate RFA for integrated activities alone is not appropriate. Certain specific areas may be more appropriate or more effectively addressed by integrated activities and integrated proposals may be encouraged or required in those areas, but the request for these proposals should be incorporated into RFA(s) that also include non-integrated activities. The request for such proposals should be included within a single RFA.*
- *Integrated proposals must include a significant component of two or more of the tripartite land-grant mission of learning, discovery, and outreach. These components should not only be coordinated and collaborative, but interdependent in addressing issues and priorities.*

- *Serious consideration should be given to the establishment of an IGERT-like (Integrative Graduate Education and Research Traineeship) program for a portion of the integrated programs.*
- *The requirement for no less than 30 percent of the AFRI funding in integrated programs will require additional commitment to recruiting and training teaching and extension personnel to participate in the AFRI. This will need to occur quickly to meet the requirement.*
- *Care should be taken that integrated programs are truly integrated and that extension and teaching faculty are included in the planning of such projects and not simply a “tag on” to secure funding in this area.*

ATTACHMENT 4

Comments & Recommendations

To: The Honorable GALE BUCHANAN, *Under Secretary for Research, Education, and Economics*

From: D.C. COSTON, *Chair, NASULGC’s Farm Bill Implementation Assistance Committee*

Date: October 27, 2008

Re: Research, Education, and Extension Office (REEO) and National Institute of Food and Agriculture (NIFA)

Title VII of the 2008 Farm Bill (the Food, Conservation, and Energy Act of 2008, P.L. 110-246) contains, as you know, many provisions of concern to the land-grant university system. Two items of particular interest to the system are the Research, Education, and Extension Office (REEO) and the National Institute of Food and Agriculture (NIFA). Therefore, on behalf of the Board on Agriculture Assembly of the National Association of State Universities and Land-Grant Colleges (NASULGC), the Farm Bill Implementation Assistance Committee submits the following comments and recommendations on these two subjects.

Research, Education, and Extension Office

REEO Division Chiefs. The Statement of Managers from the Committee of Conference requires that the Division Chiefs be selected by the Under Secretary to: (1) promote leadership and professional development; (2) enable personnel to interact with other agencies of the Department; and (3) allow for the rotation of Department personnel into the position of Division Chief. Each Division Chief is required to have conducted exemplary research, extension, or education in the field of agriculture or forestry and is required to have earned an advanced degree at an institution of higher education. Each Division Chief is limited to a 4 year term of service. The duties of each Division Chief include addressing the agricultural research, extension, and education needs and priorities within the Department and communicating with stakeholders, as well as the development of the roadmap.

Recommendation: We are pleased that the Division Chief positions have been filled from within the USDA’s science and education agencies and we look forward to working with these and other REEO personnel in the years ahead.

Recommendation: Working as a team, the Under Secretary, Division Chiefs, and other REEO personnel must enhance programmatic integration and eliminate administrative duplication among NIFA, ARS, ERS, USFS, and NASS, and maximize allocation of staff resources among these agencies.

*Recommendation: The Division Chiefs should utilize the land-grant system’s education and extension capability to deliver research results produced by **all** agencies within USDA to the Department’s various stakeholders and customers.*

Recommendation: The Division Chiefs should assist the Under Secretary in identifying, prioritizing, and addressing continuing and emerging agricultural research, education, and extension needs, including funding requirements.

Personnel. The Statement of Managers states the expectation that the REEO is “to be staffed and funded from appropriations made available to the agencies within the REE mission area. There is concern that the REEO will evolve into a new layer of bureaucracy. To address this, the Managers have included language to limit the number of staff positions for the REEO to 30 full-time current positions.”

Recommendation: Each REEO division should be staffed by personnel with professional experience in the division’s respective mission area(s).

*Recommendation: In addition, personnel with families, youth, and community development professional experience should be represented **throughout** the REEO staff to ensure integration of these functions into the operations of the individual divisions and the Research, Education, and Economics mission area as a whole.*

Recommendation: Intergovernmental Personnel Act appointments are strongly encouraged to be represented within the REEO staff.

National Institute of Food and Agriculture

Title VII requires a new National Institute of Food and Agriculture (NIFA) to be established by October 1, 2009. The Managers believe that NIFA “will be commensurate in stature with other grant-making agencies across the Federal Government, such as the National Institutes of Health and the National Science Foundation. The Managers intend for NIFA to be an independent, scientific, policy-setting agency for the food and agricultural sciences, which will reinvigorate our nation’s investment in agricultural research, extension, and education.” To accomplish these objectives, “all authorities under CSREES are transferred to NIFA, and all programs currently under CSREES will continue under NIFA . . . By restructuring CSREES, the Managers intend for NIFA to raise the profile of agricultural research, extension, and education.”

NIFA Director. According to the Statement of Managers: “NIFA will be headed by a Director, who is required to report to and consult with the Secretary on the research, extension, and education activities of NIFA. The Director will work with the Under Secretary for Research, Education, and Economics [REE] to ensure proper coordination and integration of all research programs that are within the responsibility of the Department. The Director of NIFA is required to be a distinguished scientist and will be appointed by the President . . . The Director is required to report to the Secretary or the designee of the Secretary and will serve a 6 year term, subject to reappointment for an additional 6 year term.”

Recommendation: The NIFA Director should report directly to the Secretary.

Recommendation: The NIFA Director should coordinate with the REE Under Secretary and implement, to the maximum degree possible, the Roadmap.

Recommendation: The NIFA Director should ensure that NIFA coordinates and integrates with other USDA intramural agencies, the REEO, and stakeholders including the land-grant university system.

NIFA Structure. The Statement of Managers provides “the Director with discretion to organize NIFA into offices and functions to administer fundamental and applied research and extension and education programs. The NIFA Director is required to ensure an appropriate balance between fundamental and applied research programs, and is required to promote the use and growth of competitively awarded grants.”

Recommendation: NIFA should be organized into two divisions: (1) a “Division of Research, Extension, and Education” to administer capacity and infrastructure programs (as defined by legislation); and (2) a “Division of Competitive Programs” to administer competitive initiatives for research, education, and extension.

Recommendation: In addition to the two divisions, the Director should create programmatic leadership offices to provide crosscutting programmatic planning and support functions between the two divisions, and ensure integration between capacity and infrastructure and competitive research, education, and extension programs. Examples of programmatic leadership offices that would integrate the functions and initiatives to be administered by each division include:

- *Families, Youth, and Community Development*
- *Natural Resources and Environment*
- *Plant Health and Production*
- *Food Safety, Nutrition, and Health*
- *Animal Health and Production*
- *Agricultural Systems and Technology*
- *Agricultural Economics*

Recommendation: The Director should designate a specific point of contact within each programmatic leadership office to ensure collaboration and coordination between each REEO office and the respective NIFA office. Research, Extension and Education functions should be represented in the points of contact and within each of the programmatic leadership offices.

ATTACHMENT 5

Date: May 26, 2009

To: COLIEN HEFFERAN, Administrator, CSREES
From: D.C. COSTON, Chair, Farm Bill Committee

Re: Comments on on design and implementation of the 1890 Institution Capacity Building Grants Program

The Farm Bill Implementation Assistance Committee was appointed by the Association of Public and Land-grant Universities' (formerly NASULGC) Board on Agriculture Assembly to work with USDA in implementation of provisions of the Food, Conservation, and Energy Act of 2008 ("2008 Farm Bill"). We wish to offer comments in response to the April 20, 2009, announcement in the *Federal Register* seeking feedback on design and implementation of the 1890 Institution Capacity Building Grants Program.

The 1890 Institutions are important partners in the land-grant system in the United States. There is significant, and ever expanding, collaboration among land-grant universities. Additionally, the 1890 institutions have constituencies which they are best positioned to serve through teaching, research, and extension programs.

The Board on Agriculture Assembly was supportive of the needs of the 1890 universities during the process of development of the 2008 Farm Bill. Several of the provisions in the Bill address enhancing capacity. A major component of this is the 1890 Capacity Building Grants Program. This collective support from throughout the land-grant community was based on the two facets outlined above: the 1890 Universities need the capacity to work with their constituencies, and they also need the capacity to be partners with fellow land-grant universities and collaborators.

A number of the 1890 universities are submitting comments in response to this call. Additionally, the Association of Research Directors (ARD), which is the collective 1890 agricultural research leadership, and the Association of Extension Administrators (AEA), which is an organization whose membership includes the Extension Administrators and Associate Administrators who provide leadership for the Extension programs at the 1890 Land-Grant Universities, have each submitted a response.

The ARD comment was signed by Dr. Orlando Means, who chairs the ARD organization and the AEA comment was signed by Albert E. Essel, Chair, AEA. Thus, the commentary submitted by the ARD represents the collective thoughts of the impacted 1890 community.

The Farm Bill Implementation Committee supports the recommendations in the ARD and AEA commentary (copies attached) and recommends that the Cooperative States Research, Education, and Extension Service carefully consider the counsel provided therein as the 1890 Capacity Building Grants Program is designed and implemented.

EXHIBIT 1

Association of Extension Administrators

May 18, 2009

Dr. COLIEN HEFFERAN,
Administrator,
 Cooperative State Research, Education, and Extension Service, USDA,
 Washington, D.C.

Dear Dr. Hefferan:

This letter is in response to the request for stakeholders' input for the 1890 Institution Capacity Building Grants Program (CBGP) that appeared in the *Federal Register* on April 16, 2009. The stakeholders' comments listed below are provided on behalf of the Association of Extension Administrators (AEA). The AEA is an organization whose membership includes the Extension Administrators and Associate Administrators who provide leadership for the Extension programs at the 1890 Land-Grant Universities.

The AEA is pleased that you are seeking input from stakeholders as you prepare the new rules and regulations for the CBGP. This is really important to the Extension Administrators because this is the first time that Extension has been included as a primary component of the CBGP. The addition of Extension to the program provides an opportunity for genuine collaboration and partnership between teaching, research, and Extension as capacity is built at the 1890 land-grant universities.

In order to prepare these comments, input was solicited from the 1890 Extension Administrators regarding implementing the changes in the CBGP, as stipulated in the Food, Conservation, and Energy Act of 2008. Based on their feedback, the information below is being submitted to USDA/CSREES for consideration in developing the new rules and regulations to implement the 1890 Capacity Building Grants Program.

1. The new rules and regulations should ensure that Extension is a viable component of the CGBP.
2. If there is a limit to the number of proposals that can be submitted from each university, the limit should allow for an equal number of proposals from teaching, research, and Extension. However, the decision regarding which proposals are submitted for consideration for funding from a particular university should be determined by the university. For example, if the number of proposals that can be submitted is limited to twelve, then each area (Extension, research, teaching) should be eligible to submit four qualified proposals; however, the final decision will be made by the university.
3. Institutions should be able to submit standalone research, teaching, or Extension proposals, as well as joint proposals that include two or all three of these areas.
4. A percentage of the funds should be designated for research, teaching, and extension proposals, as well as to fund joint proposals. It is recommended that 30% of the funding should be provided to each entity and 10% to fund joint proposals.
5. If research, teaching, or extension failed to submit a sufficient number of qualified proposals to utilize the allocated funds, the remaining funds should be redistributed equally among the areas with additional qualified proposals.
6. Consideration should be given to funding planning grants and/or mini-grants to address a particular capacity building issue or problem.
7. Peer reviewers should be identified from the 1890 universities to assist with the review process. Persons will not be allowed to review proposals that are submitted from their respective institution. However, the CGBP rules and regulations should no longer prohibit persons from the 1890 land-grant universities from serving as a member of the peer review panel for this program. Every effort should be made to ensure that reviewers of Extension proposals have a working knowledge of Cooperative Extension.
8. Proposals submitted from teaching, research, and extension should be reviewed separately and not as single group of proposals. This will ensure that proposals that are similar in nature are reviewed together. More importantly, this will avoid trying to compare 'oranges and apples' extension, research and teaching proposals. For joint proposals, consideration should be given to having reviewers from Extension, research, and teaching to serve on the review panel.
9. Consideration should be given to funding Extension proposals up to \$225,000.00 and joint proposals with research or teaching up to \$350,000.00.
10. It should be optional for Extension professionals to include Federal partners as collaborators on their proposals. There are not many persons at the Federal level with extension responsibilities or appointments and making Federal collaborators a requirement could adversely impact proposals submitted in Extension.

Cooperative Extension is the outreach effort of the university whereby resources are utilized to address public needs through science-based non-formal and non-credit educational programs. The 1890 programs reach diverse audiences with special focus on the needs of limited-resource, hard to reach, and disadvantaged clientele. Cooperative Extension programs focus on the following broad areas:

- 4-H Youth Development—cultivates important life skills in youth that build character and assist them in making appropriate life and career choices. At-risk youth participate in school retention and enrichment programs inclusive of after school and Saturday academy. Youth learn science, math, social skills, and much more, through hands-on projects and activities.
- Agriculture—research and educational programs help individuals learn new ways to produce income through alternative enterprises, improved marketing strategies, and management skills and help farmers and ranchers improve productivity through resource management, controlling crop pests, soil testing, livestock production practices, and marketing. The 1890s are also conducting educational programs in aquaculture, small ruminant production, small fruits and vegetable production, and many other niche crops that are important to small-scale producers.
- Leadership Development—trains Extension professionals, volunteers, and others to deliver programs in gardening, health and safety, family and consumer issues, and 4-H youth development and to serve in leadership roles in the community.

- Natural Resources—teaches landowners and homeowners how to use natural resources wisely and protect the environment with educational programs in water quality, timber management, composting, lawn waste management, and recycling.
- Family and Consumer Sciences—helps families become resilient and healthy by teaching nutrition, food preparation skills, positive child care, parenting, family communication, financial management, and health care strategies.
- Community and Economic Development—helps local governments, faith-based and nonprofit organizations to investigate and create viable options for economic and community development, such as improved job creation and retention, small and medium-sized business development, effective and coordinated emergency response, solid waste disposal, tourism development, workforce education, and land-use planning. Also help clients to develop small family owned businesses.

It is critical for the 1890 universities to increase their capacity in extension in the aforementioned areas. Additionally, the CBGP should support informal education to increase nutrition, health, financial, family, and agricultural literacy of adults and/or youth through training, workshops, institutes, and other methods. The program should allow extension professionals to develop sound extension methodology, curriculum, and innovations to the “Demonstration Model” to delivery of effective research based programs. The CBGP should provide support to develop faculty, staff, and volunteer capability to plan, implement, and evaluate programs based on identified needs that will engage audiences and enable informed decision making. The program should also support extension technology upgrades to improve program delivery.

Thank you for the opportunity to provide these comments for your consideration. Should there be questions or if additional information is needed, please contact Dr. Albert Essel, Chair, Association of Extension Administrators and Associate Dean, Delaware State University at 302-857-6424 or by e-mail at aessel@desu.edu.

Prepared by,

ALBERT E. ESSEL, *Chair, AEA and
Associate Dean for Extension.*

EXHIBIT 2

I am writing on behalf of the membership of the Association of Research Directors (ARD) in response to your call for stakeholder input on the development of new Rules and Regulations for the 1890 Capacity Building Grants Program (CBG). The ARD includes representation from both research and academic programs and is a professional embodiment of the food and agricultural sciences in its broadest sense on our campuses. The association has strong ties to its stakeholders, particularly to students, farmers (particularly limited resource farmers), Agri-industry, environmentalists and both rural and urban communities.

As an 1890 family, the inclusion of Extension in Capacity Building Grant funding is recognized as extremely beneficial to the programs we provide for 1890 stakeholders and is in line with NIFA thrusts in priority funding for integrated programming. However, to set the stage for some of the recommendations that follow, the chart below will strikingly display how funding breakdowns from the past have greatly eroded effective funding for research when the decision was made to make equal allocations to both teaching and research as the CBG program was developing. Initially, research was primarily the area for which the Capacity Building Grants program funding was expected to be used to assist the 1890s in becoming more competitive and thus able to move to other competitive programs as a strengthened USDA partner. Without diminishing the value of teaching and extension activities on our campuses, it is important to recognize that research requires significantly higher investments in terms of equipment and specialized human capital before our institutions can be competitive. With so few research proposals being funded annually because of the funding distribution, only minimum research capacity building could be achieved through CBG funding. As is well known, 1890 institutions are clearly disadvantaged in terms of research resources as compared to 1862 counterparts. Yet it is expected that the 1890s not only build quality research programs but strengthen them as science advances. Thus, the greatest need for capacity building on the 1890 campuses remains in research in the food and agricultural sciences. It would be from this growth that both academic and extension programs could advance. This should be factored strongly into consideration in terms of funding distribution within the CBG program. We therefore urge caution when attempt-

ing to apportion funding based on equal percentages to research, teaching and extension when, as seen below, such an apportionment has not worked well.

CBG funding results as related to the funds being equally divided between research and teaching:

Year	Proposals Received	Total Awards Made (success rate)	Teaching Proposals Received (percent submitted)	Teaching Awards Made	Research Proposals Received (percent Submitted)	Research Awards Made	Appropriated Funds Millions
2008	111*	44 (37%)	41 (37%)	27 (66%)	70 (63%)	17 (24%)	\$13.56
2007	201	46 (23%)	69 (34%)	29 (42%)	132(66%)	17 (13%)	\$12.30
2006	195	44 (23%)	58 (30%)	28 (48%)	137(70%)	16 (12%)	\$12.30
2005	184	44 (24%)	54 (29%)	26 (48%)	130(71%)	18 (14%)	\$12.30
2004	176	47 (27%)	58 (33%)	28 (48%)	118(67%)	19 (16%)	\$11.40
2003	172	46 (27%)	55 (32%)	28 (51%)	117(68%)	18 (15%)	\$11.40
2002	147	41 (28%)	47 (32%)	24 (51%)	99 (67%)	17 (17%)	\$9.48

*Number of proposals submitted was limited to 8 per campus.

The data in the chart reveal that because of the stipulation that 50% of the CBG funding be made available for teaching and 50% of the funds be allocated to research, substantial inroads to building capacity in research through this program have not been realized. The need has been in research as is evidenced by the number of proposals submitted for research (\$300,000 maximum funding) *versus* substantially fewer submissions of teaching proposals (\$200,000 maximum funding). This has lead to higher quality research proposals being recommended for funding but funds had been depleted before the cut-off was realized. Yet, teaching proposals were funded that were not as high in quality as those of research because more funding was available for teaching. Thus the ARD is recommending a funding strategy to fund the highest quality proposals as is the goal of competition, which will be delineated at the end of this communication.

The following are additional requests:

1. The ARD is requesting that the Federal Cooperator requirement for CBG proposals be removed. The intent of such a requirement had been to assist in establishing partnerships and support from USDA agencies for 1890 initiatives. However, the 1890s have evolved to establish partnerships not only with numerous Federal partners, but with private and public entities as well. Thus, such a requirement is no longer necessary since partnerships will remain a very high priority in developing initiatives within the food and agricultural sciences.
2. The ARD requests the requirement of an endorsement letter in submitted proposals from the 1890 Deans/Directors responsible for oversight of 1890 Capacity Building Grant programs. The food and agricultural sciences can be strengthened by programming outside of researchers and educators housed within these related departments, *i.e.*, engineering, biology, chemistry, social sciences, etc. However, the proposals should be, according to the 1995 OIG Audit, submitted as "linking projects to institutions' long-term goals and strategic plans." Additionally, CSREES listed as a goal of the CBG program to "stimulate initiatives/activities that will strengthen the quality, depth, and breadth of an institution's academic programs' infrastructure in the food and agricultural sciences." Additionally CBG programs are included in the required USDA Plan of Work for land-grant universities. Thus, the letter of the dean/director will indicate knowledge of the proposal being submitted from the campus and within the letter of endorsement, the extent to which the initiative would advance the strategic plans and Plan of Work in the food and agricultural sciences. Without doing so, satellite initiatives could be funded without building capacity because of a lack of connectivity to the strategic plan, both short and long term in the food and agricultural sciences. The endorsement letter should be factored in as an evaluation criterion and assigned a numeric score in the review process.
3. In the revision of 7 CFR Ch. XXXIV (1-1-05 Edition) the ARD requests the removal of references to cost-sharing and matching, as well as the USDA agency cooperator requirement as discussed in #1 above.
4. Under definitions, a "joint project proposal means a project which will involve the applicant *1890 Institution and two or more colleges, junior colleges, or other institutions*, each of which will assume a major role in the conduct of the pro-

posed project, and for which the applicant institution *will transfer at least 1/2 of the awarded funds to the other institutions participating in the project.*" The definition goes on to say further that the "other institutions participating in a joint project proposal are not required to meet the definition of '1890 Institution' as specified in this section, nor required to meet the definition of college or university as specified in the section." Thus, it should be made clear that the partner need not be only an institution of higher education but could also be a public or private entity, such as a corporation, a small business, a community foundation, a public school system, etc. Additionally, the ARD requests the removal of the amount the partner must receive from the grant, but instead the grant should pay the fair and allowable costs for services/initiatives rendered as a viable partner. However, it is agreed that at least a 30% share of the funding could serve as a minimum amount to be expected by a partner(s). Finally, the ARD is adverse to requiring a minimum of three partners for a joint project. Considering the challenges of coordinating partnerships while realizing the tremendous benefits partnerships confer, the ARD requests that a partnership be construed as the minimum of two, not three partners, which means the 1890 and another entity. However, it is realized that proposals with multiple partners would be more readily fundable than only two and thus it is advisable to have multiple partners to increase the likelihood of funding.

5. The ARD requests the removal of the requirement that all teaching projects be mandated to offer academic credits. Very commendable experiential learning opportunities are awarded students that are not a part of a specific course for credit. Some teaching initiatives are related to recruitment and retention, some are for faculty development, etc. The rigors of university approval for academic credit may well be out of the confines of a CBG. Thus, these examples explain the request to remove this requirement.

6. Stipulations were placed on the 1890s as to how many proposals could be approved for an investigator at an institution who would serve as the principal investigator. Such things as time and effort that do not exceed 100% are allowable by the Federal Government. However, the universities should make their own decisions in terms of the time and effort of its employees on grants. Therefore as long as the investigator is not negligent in submitting final reports for funded grants, CBG officials should not dictate for the 1890 university who can submit proposals from their campuses. These decisions should be made by the campuses themselves.

7. By policy, CSREES requires that peer review panels reflect the diversity of stakeholders. In this regard, the 1890s have not had the benefit of having those from the 1890s serve on CBG panels. Years ago such an omission from the panels would have been understandable as the 1890 programs were small and conflict of interest would be commonplace. However, the 1890s have grown tremendously and are as unfamiliar with cohorts at their sister institutions today as the 1862s are with cohorts at 1862 campuses. Yet as the 1862s are familiar with the strengths, challenges and unique attributes of their sister institutions, so are the 1890s. Therefore, putting in place the guidelines for conflict of interest, the ARD requests that the CBG peer panels are constituted with a minimum of 25% of reviewers from the 1890 institutions.

8. The last CBG funding cycle utilized the following as priority areas:

- a. Human Health and Obesity
- b. Bio-energy Fuel
- c. Food Safety
- d. Water Quality
- e. Ag. Bio-Security (it is assumed that this area includes food safety)

The ARD concurs with the priorities listed above and will annually submit for consideration other priority areas to be considered after careful deliberation among the 1890 community. However, for the next cycle, which would include Extension, the ARD would suggest also including:

- f. Youth Development
- g. Family Financial Stability
- h. Parenting Education

The above three areas were suggested as focus areas by Extension as revealed in a previous meeting. The other areas Extension recommended, Ag. Sustain-

ability/Small Scale Agriculture, Economic and Community Development would fit in the CSREES previous category of General Food and Agriculture proposals.

9. Besides the regular research and teaching proposals and the joint/partnership proposals, CBG initiatives have also included other special program areas. The ARD suggests the following categories in addition to the traditional funding:

- a. Integrated proposals of two or more of the following—research, teaching, extension. This is an extremely important new area that the ARD highly recommends.
- b. Consortium-type proposals—must be integrated, have a minimum of five 1890s engaged, be funded at \$1 million or more, can be funded for 5 to 7 years. It is assumed that if consortium-type proposals become a possibility, this will be funded from a separate pool of CBG revenue, and not from the funding pool currently available for CBG proposals.
- c. Planning grant proposals—to develop partnership or consortium initiatives for either CBG or AFRI-type funding as well as for USDA mandatory programs like the Specialty Crop Research Initiative.
- d. Professional development proposals for administrators, researchers, extension professionals and faculty (This could also include the efforts of CBG national program leaders to extend granting opportunities to new investigators and faculty)

10. During the last funding cycle, the 1890s were limited to submitting no more than eight proposals per campus. It is recommended that this limitation be extended to twelve proposals per campus since Extension can now submit proposals as well.

11. Finally, as a result of the severe disadvantage research funding has witnessed because of the 50:50 ratio of funding for research and teaching as shown in the chart provided earlier, the ARD proposes the following breakdown in funding:

There be no breakdown in funds awarded according to teaching, research and extension other than that the three highest scored proposals in research, teaching and extension be funded. After the funding for these nine initiatives is taken off the top, the breakdown would be as follows:

20% awarded to the priority areas designated in #8 with the highest rankings (teaching, research or extension), 30% be awarded to either multi-state, integrated or partnership proposals with the highest rankings (teaching, research or extension as the leading unit), 40% be awarded to general food and agricultural sciences proposals with the highest rankings (teaching, research or extension), 10% awarded for those proposals ranked highest in the categories of planning grants or professional development. On behalf of the ARD, I express utmost appreciation for the opportunity to provide stakeholder input. Please contact me, mcmeanso@wvstateu.edu, if there is further information is warranted. I can also be reached by phone at 304-766-4291.

Sincerely,

ORLANDO MCMEANS, *Chair of ARD.*

ATTACHMENT 6

Comments Regarding the Smith-Lever 3(d) Extension Integrated Pest Management Program

Date: April 27, 2009

To: COLIEN HEFFERAN, *Administrator, CSREES*

Cc: MARTIN DRAPER, *CSREES National Program Leader—Plant Pathology*; MICHAEL FITZNER, *CSREES Plant Section Director*

From: D.C. COSTON, *Chair, Farm Bill Committee*

Re: Comments on Smith-Lever 3(d) Extension Integrated Pest Management Competitive Grants Program (CSREES-2008-0005)

On behalf of the Policy Board of Directors, Board on Agriculture Assembly, Association of Public and Land-grant Universities, the Farm Bill Committee submits the following comments and recommendations pertaining to the Extension Integrated Pest Management Competitive Grants Program (new EIPM).

Nationally, we have benefited tremendously by the dependable infrastructure of the IPM program and most recently the new EIPM Competitive Grants Program. Extension and Research faculty have generated significant impact with local con-

stituents and have established many partnerships that leverage interest, expertise and financial support to make our programs more effective.

We would like to see IPM program support grow with the goal of enhancing the current and emerging institutional efforts that make up the national network of coordinated Extension IPM programs. The Farm Bill Committee strongly believes that the future EIPM program must have a commitment to grow its budget if it is to adequately establish effective IPM Extension efforts across the country—efforts that currently exist and those that are emerging thanks to expanded eligibility under EIPM since 2009. We are offering comments that we believe enhance the national network and its ability to address the needs of a rapid response to pest problems which threaten the U.S. food supply, the environment, and human and animal health.

We request the agency develop a long-term vision for how that Federal support can be increased. The current 3(d) IPM funds when distributed across more institutions via the new EIPM Competitive Grants model means it is difficult to maintain our efforts, while growing programs in institutions that have previously not received funding. We expect the Agency, USDA, and Administration to make a concerted effort at growing support for the EIPM budget to \$20M annually by 2012.

Therefore, as the national EIPM efforts move forward, we offer the following comments and recommendations in accordance with the *Federal Register's* notice for solicitation of stakeholder comments [March 23, 2009 (Volume 74, Number 54)]:

- We encourage the agency to establish a realistic maximum cap for total allocation to a single institution. We feel that to insure a national network, a reasonable maximum cap for total award is necessary to support a basic and effective level of IPM programming. That cap should be established annually, and based on the Federal fiscal year base-budget allocation. Such a maximum cap on the total award should be established through a shared leadership structure (as described in a subsequent recommendation below).
- Institutions within states or regions that choose to submit joint proposals for one state—or a regionwide IPM program should be awarded accordingly, *i.e.*, the cap suggested in the item above should be for an institution. Furthermore, no more than one proposal per eligible institution should be allowed for submission to the EIPM Program. States with more than one institution should be encouraged to collaborate and submit proposals as a single state, perhaps through providing the opportunity for some funding to support true and verifiable joint efforts.
- Coordination within an institution and among institutions is vital to assure maximum impact of the IPM programs. The maximum financial allocation for state coordination and collaboration activities should be \$100,000 per institution, with the potential shared addition of \$25,000 as noted in the item above for cross-institutional coordination. This is essential to guarantee a comprehensive IPM program that addresses a spectrum of coordination and collaboration activities. This will also provide a level of support for state coordination and will ensure that each state will maintain and/or designate a State IPM Coordinator at an appointment level adequate to coordinate across disciplines, within their state, across states (regionally) and with the national network of State IPM Coordinators.
- Proposals should focus on programs that have state-wide or multi-state impact, rather than individual projects.
- In proposal submissions, we recommend that each proposal be required to address (1) coordination and collaboration; and (2) at least two additional areas of emphasis. Each state or institution should be allowed to determine the areas of emphasis, based on their ongoing interactions with stakeholders without limitation by a list published in the RFA.
- We recommend the elimination of all other maximum cap allocations for areas of emphasis within state proposals. This would allow for great flexibility in the way a state determines pest management needs and how to address those of greatest importance.
- Federal extension funding that is currently directed to the Regional IPM Centers (known as RIPM) should remain in place and not be combined with EIPM funding and administrative structure for the following year. However, the Policy Board recommends an orderly transition of these funds into EIPM-CS over time. Such a move would improve the program's ability to support state comprehensive IPM programming.
- We recommend that long-term grant award periods be utilized. While FFY09 awards were made for 1 year grants, in subsequent years continuation grants

with longer duration (up to 4 years) should be awarded. Utilizing longer agreements will offer more stability to partnerships and ability to leverage IPM programming and interests with stakeholders. The agency has the authority to make continuation grants. That authority should be utilized.

- Consideration should be given to an earlier release of the Request for Assistance (RFA) to better coincide with the Federal Fiscal/Budget Year. We encourage a summer release of the next RFA with a due date prior to October 1st.
- As the competitive grant model is refined, we recommend the criteria for awards also include:
 - Demonstrated impact in IPM programming
 - Research-based information, data and extension education methods
 - Institutional capacity that insures future program impact
 - Coordination with external partners
 - Leveraging funds and expertise
 - Relative significance to the Institution's mission and scope of audiences served
 - Extent to which the proposal addresses a comprehensive IPM "program" rather than isolated projects.
- Having members of the EIPM Proposal Review Panel who understand how projects are supported and administered with statewide and multi-state collaborative responses is essential. Therefore, we recommend current approaches to review panel membership be expanded to include: (1) at least one state program leader for Agriculture and Natural Resources; (2) a regional IPM Center Director; and (3) one or more state IPM Coordinator(s). We respect considerations for potential conflicts-of-interest; however, there is always room for improvement when evaluating the efficacy, efficiency and effectiveness of state proposals by those who are in a position to best understand outreach and Extension program delivery. Across the nation, there are a number of people who have held recently held such roles, who are now in other assignments or are retired. Utilizing their skills might be one approach to avoid the conflict of interest issue.
- We strongly encourage the Agency to expand efforts in shared program leadership with the state network of IPM Coordinators and the Federal IPM Coordinating Committee. We call upon the Agency and national staff to earnestly explore ways to be more inclusive in decision-making via participatory processes such as the Committee for Shared Leadership—Water Quality and/or SARE. To be a responsive program that is coordinated nationally and delivered locally, greater utilization of the state-network of IPM Coordinators is strongly encouraged. This is especially important as we address emerging and immediate pest issues in ways that require multi-state, regional and nationally coordinated responses to problems that do NOT fit within traditional program boundaries such as political boundaries or small-scale isolated geography.

Again, we offer a sincere thank you for the opportunity to provide input on behalf of the nation's Land-Grant Colleges and Universities through the role of the Policy Board of Directors and its Farm Bill Committee. The recommendations above, when combined with a vision for growing the overall budget for EIPM will make our efforts strong, more effective and more responsive to ag producers.

ATTACHMENT 7

Comments & Recommendations

To: COLIEN HEFFERAN, *Administrator*, CSREES

From: D.C. COSTON, *Chair*, Farm Bill Implementation Assistance Committee

Date: October 28, 2008

Cc: The Honorable GALE BUCHANAN, *Under Secretary for Research, Education, and Economics*

Re: Comments on Establishment Specialty Crop Research Initiative (SCRI) Information Number (RIN) number 0524-AA28

The Board on Agriculture Assembly of the National Association of State Universities and Land-Grant Colleges (NASULGC) appreciates the opportunity to comment on the proposed rule to implement Section 7311 of the Food, Conservation and Energy Act of 2008 (Public Law 110-246, also known as the 2008 Farm Bill), the Specialty Crop Research Initiative.

The land-grant university system strongly supported the initiation of the specialty crop grant program in recognition of the increasing importance of specialty crop producers in the agricultural economy, as well as the unique needs of this sector in comparison to traditional row crops. However, we are particularly troubled by section 3430.205 of the interim final rule which limits the indirect costs claimed to not exceed 22%.

When Congress authorized this program, it was explicit in requiring a dollar-for-dollar match. What Congress did not do was to limit unrecovered indirect costs that could be counted towards an institution's match. CSREES' application of the 1462(a) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 is not specifically authorized or discussed in Section 7311. By preventing the use of unrecovered indirect costs as matching, CSREES is in direct conflict with OMB Circular A-110 which specifically allows unrecovered indirect costs to be included to meet Federal grant cost-sharing or matching requirements. Since, as stated, that application of the 22% limit is neither specifically authorized nor discussed by the Committee report there is no indication of Congressional intent to further apply such a limit.

To further restrict these funds by applying burdensome and unauthorized limits on indirect costs threatens to restrict the availability of these funds to many highly qualified universities and researchers. In a recent survey of land-grant institutions, with 57 Experiment Station Directors responding, an overwhelming majority indicated that the unrecovered indirect cost restriction on matching will negatively impact their ability to participate in the SCRI.

When Congress authorized this program, it was explicit in requiring a dollar-for-dollar match to ensure that Federal dollars are leveraged to their maximum to benefit the specialty crop industry. However, it was not the intent of Congress to restrict the ability of institutions to submit applications to the program. There are many institutions that are having great difficulty in meeting the matching requirements. This will become increasingly important as the Biomass R&D and Organic Ag programs become available.

The CHAIRMAN. Thank you, Dr. Coston.
Mr. Layton?

STATEMENT OF JOSEPH H. LAYTON, JR., MEMBER, BOARD OF DIRECTORS, AMERICAN SOYBEAN ASSOCIATION; PRESIDENT, NATIONAL COALITION FOR FOOD AND AGRICULTURAL RESEARCH; SOYBEAN, CORN, AND GRAPE FARMER, VIENNA, MD; ON BEHALF OF USDA NATIONAL AGRICULTURAL RESEARCH, EXTENSION, EDUCATION AND ECONOMICS (NAREEE) ADVISORY BOARD

Mr. LAYTON. Thank you, Mr. Chairman and Members of the Committee. I am Joe Layton. I have submitted copies of my full written testimony. I hope you each have time to read it. And I request that it be included in the hearing record.

The CHAIRMAN. Without objection.

Mr. LAYTON. I am a farmer from across the Bay, on Maryland's Eastern Shore, a constituent of Congressman Kratovil, as he had said. My family and I operate about an 1,800 acre farm, producing corn, soybeans, wheat, and timber. Three years ago, we started a vineyard and are now building a winery. We have been pressing grapes for the last week, and our first wines are now fermenting, which is very exciting for me. But I am here today to talk about research.

I have been, for the last 6½ years, representing Maryland farmers on the board of the American Soybean Association. All of that time, I have represented the American Soybean Association on the board of National C-FAR, which is National Coalition of Food and Agriculture, and presently serve as President. So the two groups I am speaking for today are the American Soybean Association,

which represents 22,000 soybean producers, and National C-FAR, which is a broad-based customer-led coalition.

Because of my activities with these two groups, I have been also appointed, 3 years ago, to the National Agricultural Research, Extension, Education, and Economics Advisory Board, which reports to the Secretary and to Congress on research issues. I guess what I want to say is that, over the last 6 years, I have spent a good bit of time, for a farmer, looking at federally funded agriculture research.

My written testimony makes three general conclusions. First, the research title is a vital means to help achieve important national priorities and respond to current needs of research customers. Second, new leadership at USDA is moving forward capably to implement the research title to make REE programs more effective and compete for the increased funding needed. And third, that increased funding is critical to achieving the intended objectives of the research title for both the extramural and intramural programs. It is important to include investments in both fundamental and applied research.

Over the years, I have concluded that we in agriculture have not done a very good job in supporting research, but this is changing. Both National C-FAR and American Soybean Association are committed to working with a broad base of stakeholders to increase research funding.

NAREEE, in April, along with the Farm Foundation, held a summit for stakeholders on agriculture research and productivity for the future, to look at where we are and where we need to go. On Monday of this week, I attended a meeting with many of the producer groups where we got together to discuss how best to move forward in supporting research. I am very optimistic that we, the customers of research, will do a better job of supporting research than we have in past years.

The farm bill contained two provisions that I believe will have long-lasting positive impacts on research: the establishment of the National Institute of Food and Agriculture and the establishment of the position of Chief Scientist.

Both National C-FAR and American Soybean Association are very excited about the National Institute. We have supported the establishment, and we believe the National Institute will provide the structure to facilitate the growth in quantity and quality of food and agriculture research needed to meet the challenges of the future. And we are also very excited about the recent appointment of Dr. Roger Beachy to serve as its first director.

We are equally excited to have Dr. Shah, with his leadership and vision, to serve as Under Secretary and Chief Scientist, a position that seems very appropriate to lead an organization that we need to be. And we expect to produce the best science in the world on the subject of food and agriculture.

Personally, I believe we are now in a period where we have an opportunity to improve funding for research. I am excited to have the leadership of Dr. Shah and Dr. Beachy to lead REE. We have an Administration which has said it supports an investment in science. And we, the customers, are motivated and, I believe, will do a better job of supporting research.

On behalf of NAREEE, National C-FAR, and American Soybean Association, I appreciate the opportunity to make these comments, and I personally thank you for allowing me to address you.

And I also invite you, if you have the opportunity to cross the Bay after May of 2010, which is when we plan to open, to travel a mile or so off Route 50 and visit Layton's Chance Vineyard and Winery. I don't know whether a little advertisement is appropriate, but—

The CHAIRMAN. We would like to take you up on that, Mr. Layton.

Have you concluded, Mr. Layton?

Mr. LAYTON. Yes, I have.

[The prepared statement of Mr. Layton follows:]

PREPARED STATEMENT OF JOSEPH H. LAYTON, JR., MEMBER, BOARD OF DIRECTORS, AMERICAN SOYBEAN ASSOCIATION; PRESIDENT, NATIONAL COALITION FOR FOOD AND AGRICULTURAL RESEARCH; SOYBEAN, CORN, AND GRAPE FARMER, VIENNA, MD; ON BEHALF OF USDA NATIONAL AGRICULTURAL RESEARCH, EXTENSION, EDUCATION AND ECONOMICS (NAREEE) ADVISORY BOARD

Mr. Chairman and Members of the Subcommittee, my name is Joseph H. Layton, Jr., and I am a soybean, corn and grape producer on Maryland's Eastern Shore. Thank you for scheduling this timely and important oversight hearing on implementation of the 2008 Farm Bill Research Title.

I am a Member of the Board of Directors of the American Soybean Association (ASA). I represent ASA on the Board of Directors of the National Coalition for Food and Agricultural Research (National C-FAR) and serve as President of National C-FAR. I have also been privileged to serve as a member of the U.S. Department of Agriculture's (USDA) National Agricultural Research, Extension, Education and Economics (NAREEE) Advisory Board, representing the perspective of major commodity groups. I am pleased to testify today as a farmer and on behalf of the NAREEE Advisory Board, National C-FAR and the American Soybean Association.

The NAREEE Advisory Board was established by Congress, and I assume this Subcommittee is familiar with its structure and intent. The NAREEE Advisory Board provides advice to the Secretary of Agriculture, land-grant colleges and universities, and to the Congress on top priorities and policies for food and agricultural research, education, extension and economics. The Board is made up of 25 members, each of which represents a specific category of U.S. agricultural stakeholders.

The American Soybean Association represents 22,000 producer members on national issues of importance to all U.S. soybean farmers.

National C-FAR is a *customer-led* coalition that brings food, agriculture, nutrition, conservation and natural resource stakeholders together with the food and agriculture research and extension community, serving as a forum and a unified voice in support of sustaining and increasing public investment at the national level in food and agricultural research, extension and education. More information about National C-FAR is available at <http://www.ncfar.org>.

You may have noticed that I introduced myself as a grape producer—a rather unusual description of a Maryland farming operation. During my entire farming career I have been a row-crop farmer, with a soybean-corn rotation, and believe I have been reasonably successful. When my son and his family came back to partner with my wife Laura and me in the farming operation a few years ago, it became obvious we needed to consider options to generate additional farm income to support both families. After careful research, we decided to add a vineyard and winery, "*Layton's Chance*." Even as we have been harvesting our grain, we are now in the middle of our first grape harvest, and are in the middle of our first crush for our winery.

This is indeed an exciting and admittedly nervous time for me and our family. The challenges our farm family are experiencing have brought into fresh focus the need for investments in research, education and extension (RE&E) so that we can have the sound science upon which to base our decisions and our operations, today and into the future.

I am not a researcher, though I do some experimenting in my farming operations. However, I do appreciate the vital role that researchers play in our society; and I know that I can do what I do better because of what they produce. Modern agriculture is a science-based business. I need what research and extension can provide

in my soybean and corn operations. We also need information researchers and extension agents can provide for our new vineyard and winery operation.

We are not investing enough in RE&E to enable researchers to provide the answers I need. That is a major reason I invest some of my time in ASA, National C-FAR and the USDA NAREEE Advisory Board—to provide input as a stakeholder and to urge increased investment in food and agricultural RE&E.

My testimony in brief—

- The Research Title is a vital means to help achieve important national priorities and respond to the current and future needs of “customers”—farmers, consumers, and Congress.
- New leadership at USDA is moving forward capably to implement the Research Title, make RE&E programs more effective and compete for the increased funding needed.
- Increased funding is critical to achieving the intended objectives of the historically under-funded Research Title, for both extramural and intramural programs. It is important to include investments in both fundamental and applied research.

NAREEE Advisory Board Key to Providing Stakeholder Input

The Research Title of the 2008 Farm Bill restructured the NAREEE Advisory Board by eliminating six member categories including a member representing each of the following: a national animal commodity organization; a national crop commodity organization; the portion of the scientific community not closely associated with agriculture; an agency within the Department of Agriculture that lacks research capabilities; a research agency of the Federal Government (other than the Department of Agriculture); and a national organization directly concerned with agricultural research, education, and extension. The remaining 25 members adequately represent a wide cross-section of agriculture from producers to industry leaders to land-grant institution academicians. The smaller number of NAREEE Advisory Board members allows for more effective engagement in discussion and formulation of recommendations for the Secretary of Agriculture.

The NAREEE Advisory Board has reviewed funding issues in a number of areas and has consistently commented that USDA research programs are under-funded.

Farm Bill Research Title Has Many “Customers”

The Research Title of the 2008 Farm Bill represents the nation’s *signature Federal investment in the future of the food and agricultural sector*. In fact, the success of every other title in the farm bill and those who are charged with carrying out their respective missions is arguably dependent in significant part on scientific outcomes and tools generated by programs authorized through the Research Title, and then adequately funded by Congress. The Research Title is not an end in itself—rather it is a vital means to help achieve many national priorities. Public investment in food and agricultural RE&E today and in the future must simultaneously satisfy needs for food quality and quantity, resource preservation, producer profitability, and food safety and security.

As both an agricultural producer and as a consumer of the many products provided by our food and agricultural system, I am a “customer” of the publicly funded food and agricultural RE&E system. In reality, everyone is a “customer” of our food and agricultural RE&E system.

As an agricultural producer and “customer” of the food and agricultural RE&E system, I need the scientific outcomes and tools that an adequately funded Research Title can provide to help me do my job. The same holds true for a myriad of other “customers”—such as my fellow farmers and ranchers across the nation; the agricultural input industry; food processors; professionals in the fields of nutrition, diet and health; natural resources and environment; rural communities; and ultimately consumers of food and natural fiber around the world. Furthermore, this Subcommittee and other Members of Congress and policy makers at all levels of government are important “customers” of RE&E made possible through the Research Title.

Tools provided through RE&E are needed to help achieve safer, more nutritious, convenient and affordable foods delivered to sustain a well nourished, healthy population; more efficient and environmentally friendly food, fiber and forest production; improved water quality, land conservation, wildlife and other environmental conditions; less dependence on non-renewable sources of energy; expanded global markets and improved balance of trade; and more jobs and sustainable rural economic development. Societal demands and expectations placed upon the food and agricultural system are ever-changing and growing. Examples of current and future needs include addressing **bio-security**; **food-linked health costs**; **environment and con-**

servation; farm income and rural revitalization; biofuels and climate change; the increasing world demand for food and fiber and improved diets; and needed advances in **biotechnology** and genetic resources research. A United Nations report projects that we will need to double food production to feed nine billion people by 2050, and that 70 percent of the increase must come through research developing new technologies and increased productivity.

Implementation of the Research Title—USDA Roadmap

National C-FAR and ASA are excited about the leadership and vision that Under Secretary Shah brings to USDA and its RE&E mission. We also support the appointment of Dr. Roger Beachy to serve as the first Director of NIFA. We believe this leadership team has the stature and capability to implement the intended reforms in the Research Title, to elevate USDA to a premiere, science-based agency, and to compete more effectively for the funding needed, both within the Administration and before the Congress. Our organizations stand ready to work with them to achieve shared goals.

Effective tomorrow, October 1, the new National Institute for Food and Agriculture (NIFA) will officially exist. ASA and National C-FAR both strongly supported the creation of this Institute in the 2008 Farm Bill. I appreciate that Under Secretary Shah emphasized in his recent meeting with National C-FAR Board representatives that priorities for the Institute—nutrition and human health, food safety, bioenergy, climate change and international food security—are on top of a continuing core of crop and livestock production ag research. He also indicated that while USDA's near-term focus is appropriately on making the substantive progress needed to implement NIFA, a review of intramural programs—ARS, ERS, the Forest Service and to a lesser extent NASS—is expected to begin near the end of this year.

National C-FAR and ASA will review and comment on the revised NIFA roadmap and other organizational efforts and look forward to a continuing dialog with USDA on both the extramural and intramural programs.

A summary of National C-FAR's May comments on the Research, Education, and Extension Office (REEO) Roadmap is attached.

Implementation of the Research Title—Funding Critical

At the risk of oversimplification, Federal funding is the fuel for USDA's RE&E engine and determines how effectively the roadmap will be implemented. The experience in the stimulus bill earlier this year, in which efforts to include funding for food and agricultural research failed completely while major increases for other science agencies were included, served as a wake-up call for all of us in the food and agricultural sector. We all need to do a much better job of articulating the need and competing for funds in the future.

By any measure, Federal funding for food and agricultural RE&E has failed to keep pace with identified priority needs. Public and private investments in U.S. agricultural research and practical application of results have paid huge dividends to the United States and the world, especially in the latter part of the 20th century. However, the unparalleled success story in the food and agricultural system is a product in large part of **past** investments in food and agricultural research and extension. Federal funding for food and agricultural RE&E has been essentially *flat for over 20 years* despite much greater demonstrated needs, and has reportedly declined by about 25 percent in real terms since 2003. At the same time support for other Federal research has increased substantially. Public funding of agricultural research in the rest of the world during the same time period has outpaced investments in the United States.

Federal funding for food and agricultural RE&E represents a top national priority and a necessary long-term national commitment. Our support for increased funding includes both the intramural and extramural programs at USDA. I agree with President Obama's statement that, "Science is more essential for our prosperity, our security, our health, our environment, and our quality of life than it has ever been." President Obama recently committed to a major increase in investments in research, declaring at the annual meeting of the National Academy of Sciences that the United States will "devote more than three percent of our GDP to research and development." I believe that major increases in funding for food and agricultural RE&E must be a part of this vision for our nation's future.

Personally, I believe we are in a period of opportunity where the chance to improve research funding exists—IF all of us in agriculture can come together. Already, I have seen production agriculture—crops and livestock as well as specialty crops—coming together with the unified message that we believe a rising tide lifts all boats.

Therefore, one agenda we have all stood behind is for Congress to fully fund USDA's flagship competitive program, the Agricultural and Food Research Initiative (AFRI). The 2008 Farm Bill provided an authorized level of \$700 million annually. In 2009, appropriations were just over \$200 million. With the goal of reaching the fully authorized level of \$700 million annually as soon as practicable, dozens of groups including the land-grant universities, National C-FAR and ASA came together to support FY 2010 funding of \$300 million. We eagerly await the results of the Agriculture Appropriations conference to learn if Congress will fulfill this commitment.

Such investments are demonstrated to yield tremendous returns. A USDA Economic Research Service (ERS) September 2007 Economic Brief titled, "Economic Returns of Public Agricultural Research," shows the average rate of return to public investment in agricultural research is nearly 50 percent.

If USDA's RE&E mission continues to be starved for funds, any roadmap is destined to fall short of not only its potential but of leading to the outcomes this nation needs. The support by National C-FAR and ASA for NIFA, AFRI and other reforms in USDA's RE&E mission in the recently enacted farm bill was principally motivated by the hope that such reforms would help result in increased funding. It is incumbent on USDA, stakeholders in the RE&E and "customer" communities, and the Congress to find the will and a way to increase investments in this vital mission area and turn our shared hope into an operational reality.

This quest starts with better articulating a compelling case to fund unmet needs. To help prepare the best case possible for enhanced funding, National C-FAR has urged USDA to make it a priority to identify current and future challenges to the food and agricultural sector and the RE&E needs and resource requirements to respond to those challenges in the coming years in a timely and effective manner and to articulate those needs eloquently and effectively. USDA and the Administration should base annual budget requests for its RE&E mission on such a needs assessment.

We appreciate the longstanding support this Subcommittee, the full Committee and its Members have demonstrated over the years to authorize and oversee implementation of a sound Research Title that can compete more effectively in the funding process, both within the Administration and in the Congress.

In closing, National C-FAR, the American Soybean Association and others in the stakeholder community bear a commensurate responsibility in implementing the new programs under the Research Title, in articulating needs, and in making the case for increased funding. National C-FAR looks forward to working as a customer-led coalition with Under Secretary Shah, the new Director of NIFA, the Congress, and other stakeholders to help ensure that the USDA RE&E mission and implementing roadmap move forward as envisioned and receive the resources and funding needed to achieve scientific outcomes that are necessary for the food and agricultural sector to address multiple demands, challenges and expectations. I appreciate the opportunity to share my views.

ATTACHMENT

National C-FAR Comments on USDA's REEO (Research, Education, and Extension Office) Roadmap

Earlier this year, National C-FAR responded to a series of questions posed by USDA in a notice of public comment regarding what should be included in a NIFA roadmap. Selected questions and National C-FAR's responses that may be of interest to this Subcommittee follow:

What types of current and future critical issues (including those affecting citizens, communities and natural resources) does agriculture face that no USDA entity could address individually? **Response—**

- The challenge of maintaining and increasing the productivity of agriculture needed to provide the food, fuel and other products needed by the world's growing population will require not only the participation of all USDA resources but also extensive cooperation with the other national science organizations.
- Almost any issue requiring food and agricultural RE&E benefits from the involvement of more than one USDA entity, and indeed entities outside USDA.
- We live in a complex world, and complex interrelationships and consequences are better addressed through "multi-disciplinary" scrutiny—in terms of implementing agencies, RE&E mission areas, scientific disciplines, and stakeholders. This is particularly true at the onset, when issues are first emerging. Otherwise there is a significant risk that resources will not be targeted effectively or effi-

ciently, with unintended consequences resulting that result in lost time and require additional investments to address.

- 2008 Farm Bill reforms to the USDA RE&E mission area—including creation of the Under Secretary-Chief Scientist, NIFA and AFRI—were motivated in part to encourage increased coordination and efficiency. USDA should work to ensure that RE&E programs, including the ‘centers’ in NIFA don’t become compartmentalized, or ‘silos.’
- Coordination and cross-pollination are important to ensure unintended consequences are minimized and that RE&E outcomes address all the issues that may be involved. For example, bioenergy feedstock production will have definite impacts and possible tradeoffs related to conservation and rural development. NIFA and AFRI are in part designed to ensure that funded projects are horizontally integrated across disciplines and resource issues.

What criteria should USDA use to prioritize agricultural science (i.e., research, education and extension) investments to address these issues? Response—

- A significant portion of RE&E funding should be committed to ‘fundamental’ research. It is well established that fundamental research, as contrasted with ‘applied’ research dedicated to specific issues, can yield unexpected outcomes that prove to provide tremendous value in addressing multiple issues.
- USDA has an obligation to prioritize investments in internal research capabilities, such as the Agricultural Research Service. How well NIFA is staffed and functions will be critical to effectively allocating investments. The competitive and priority setting processes for AFRI are also important.
- USDA is urged to include in its RE&E mission a continued and expanded focus on animal health and diseases.

How might USDA better coordinate agricultural sciences among its various agencies and with its partners? Response—

- This is a central charge for USDA. It is less clear how coordination can or will be improved with USDA’s partners—in particular other Federal agencies such as the Department of Energy and the Environmental Protection Agency, where many issues and science overlap.

What are some examples where agricultural sciences are successfully coordinated for maximum benefit? Why were they successful? Response—

- It would appear that bioenergy is one area where reasonably effective coordination is occurring within USDA and with other agencies. However, conservation, environmental and emerging climate change concerns are likely to highlight the need for more coordination.

What are some examples where agricultural sciences are not coordinated effectively? Why is coordination lacking? What are the barriers? Response—

- Historically when new issues emerge the initial response tends to be fragmented at best, with improved coordination evolving over time.

What else might USDA do to improve coordination of science; enhance USDA’s ability to identify issues and prioritize investments; and evaluate its role in science implementation and coordination? Response—

- USDA might consider establishing and adhering to a clear protocol under which any emerging issue is vetted regarding interrelationships with other issues and which agencies should be involved.
- Since existing issues tend to be dynamic, periodic review might usefully be built into the process.

National C–FAR also urged USDA to continue encouraging and facilitating strong stakeholder participation as the roadmap is developed and implemented—not only by those in the research, education and extension community, but also by the multitude of stakeholder “customers” who need and will benefit from RE&E outcomes—and urged that the new programs be tasked with being inclusive in their operations. National C–FAR also supported an emphasis on cross-agency and interdepartmental coordination and collaboration and including funding for integrated projects that encompass research and translational education.

The CHAIRMAN. Thank you, Mr. Layton.

And, Mr. Layton, you basically answered my first question, and you might want to elaborate on it, if you want to, when Dr. Coston

is done, but one of our biggest challenges for agriculture research has been money inadequacy.

What are your groups doing to bring more groups to the table in order to promote agriculture research? And, as I said, Mr. Layton, you have elaborated significantly on that. But, Dr. Coston, I don't know if you wanted to say what you have been up to, as far as that goes.

Mr. LAYTON. Yes, we are. National C-FAR, of course, is a coalition of 60 some groups whose sole mission in life is to increase funding for research. We have been in existence for 6 or 7 years, and, quite frankly, we have struggled with the strategy of how to do that.

One of the things which we do, and are very proud of, is a seminar series which you allow us to hold in this room where we bring leading-edge researchers to the Hill, approximately once a month, to expose Congress to research which we think will be—won't change the world, but will be helpful. We are looking at how we can best move forward.

But, the thing that I am most excited about is, I think for the first time in my memory, the producer groups have realized that we need to do more. I think, traditionally, we have supported research by coming to Congress when we have a problem and looking for an earmark, and that has been fairly successful. But, otherwise, we have come to our ARS researchers and we have come to our land-grants and told them that we wanted and expected them to carry the ball. We have realized that we need to do more than that. I think we are in discussions now of how best to move forward, and we can be more effective.

The CHAIRMAN. Dr. Coston?

Dr. COSTON. We, in the land-grant system, we are part of that agricultural tradition, including with producers, of doing a remarkable and fantastic job for this nation and not claiming credit for it. This nation is well fed, well taken care of. And it is the collective of new information and technology implementation by the agricultural industries.

We, in the land-grant system, are taking a more deliberate effort to try to point out the things that are being accomplished and what they mean, explain the answer to the question, "So what? Why should people in inner cities, and people who are not as closely tied to it, appreciate and understand the importance that agriculture has to their daily lives and also to the vitality of their nation?"

The CHAIRMAN. Dr. Coston, you referred to, in your testimony, the problem that we have with research dollars being raided by the appropriators and OMB. That is an age-old problem. I remember Kika de la Garza for 17 years complaining about that.

But what can NIFA do to attract the attention so we stop having these raids by the appropriators and by OMB?

Dr. COSTON. Mr. Chairman, thank you for the question.

That was part of the reason that the land-grant community got behind the CREATE-21 concept and the idea of the National Institute; part of the reason that we wanted to see the Under Secretary also carry the title of Chief Scientist; and part of the reason for promoting the National Institute, to have someone of great esteem and an eminent scientist. And, as I said, we are pleased that Dr.

Beachy is there. He certainly brings that stature. It is part of having the understanding—of having that understanding of the importance of the science, education, outreach efforts that are administered through the National Institute.

We also are pleased that in Fiscal Year 2009, and so far in the appropriations discussions for Fiscal Year 2010, there have not been some of those traditional raids. And we believe that it is both the results of this National Institute formation, the stature it brings, and also the success in advocacy and the collective effort of the scientific community, working with the practitioner community all across the nation.

The CHAIRMAN. Thank you.

I recognize the gentleman from Virginia, Mr. Goodlatte.

Mr. GOODLATTE. Thank you, Mr. Chairman.

Dr. Coston, what is the position of the Association of Public and Land-grant Universities regarding the balance of funding between formula and special competitive grants?

Dr. COSTON. The position is that they are both critically important.

We fully recognize that there is a lot of emphasis and a lot of push on competitive grants. We fully support that type of work, and we are pleased with the new AFRI program and the other programs.

However, this nation has benefited by the formula programs that go out to the institutions in each of your states, and in the territories, that reach on to the reservations of Native Americans and reach throughout this nation. Those programs are vital for the continued functioning of land-grant universities. We are fully accountable for those funds, both programmatically and fiscally. And our position is that a balanced portfolio of investment is essential for us to continue what we are doing. And we are glad to share what it is we do and let you know.

Mr. GOODLATTE. Well, I appreciate that answer, but it doesn't tell me a lot. Obviously, in a perfect world, if you had a lot of resources for both these uses of funding, we would do as much as we could with both. I think that is your answer.

But since we don't, how do you balance it? Is it 50–50? Given the level of funding you have seen in recent years, do you have to have more formula funds for these universities, or are they able to compete for some of these competitive grants?

Dr. COSTON. Well, the answer is we are able to compete partly because the capacity or formula funds are there.

There are a number of things that competitive grants will not accomplish. If I may use an example from Congressman Pomeroy's state very quickly, in 1993 a devastating disease hit the small grains in the Upper Great Plains, a disease called wheat scab. Traditionally, when you have something like that hit, the way to handle that is through the development of new varieties. And it typically takes 12 to 15 years for a new variety to be developed.

In the late 1980s, there was a scientist at North Dakota State University, Richard Frohberg, who looked over the horizon and saw that this might come. Because the experiment station director had Hatch Act funds, formula funds, and believed in the eminence of Dr. Frohberg's science, there was an investment made.

What ultimately occurred was the first new variety out of that program was released in 2000——

Mr. GOODLATTE. I hate to interrupt you, but I have 2 minutes left and about six more questions.

Dr. COSTON. Yes, sir.

Mr. GOODLATTE. Does the APLU and all of its members support elimination of special earmarked research grants?

Dr. COSTON. That is something that each institution will deal with with its own respective members.

Mr. GOODLATTE. Mr. Layton, while serving on the USDA Research Advisory Board, did you feel that USDA actively engaged the board in the areas of program and budget development?

Mr. LAYTON. Not so much in budget, but certainly on program development. I certainly felt that USDA was always forthcoming with the NAREEE board, always tried to lay out what they were doing and why, and actively sought our advice and opinions on how to improve the programs.

Mr. GOODLATTE. What advice would you offer the new Administration on how they might better utilize the Advisory Board?

Mr. LAYTON. I am not sure how they could better use it. I think the Advisory Board itself will, in the coming year and the coming years, provide better information to Congress and the Administration, in that in the last year the NAREEE Advisory Board itself looked at itself, reviewed how it does things, and tried to change how it does its business, tried to be more interactive with USDA and also spend more time within itself discussing, not what has happened in the past, but what needs to happen to make USDA research better.

So, hopefully, hopefully, that will make it more effective.

Mr. GOODLATTE. And what suggestions do you have regarding the balance of funding between intramural and extramural research support?

Mr. LAYTON. As President of National C-FAR, our policy has always been and continues to be that we do not support taking funds from any existing programs to fund new programs. We are very supportive of the National Institute, in that we believe that is the area in which funds can grow. But we are supportive of it being new funds, not taking funds from other areas.

From both the perspective of National C-FAR and the American Soybean Association, we have always realized the importance of formula funds. They provide many day-to-day services to solve immediate problems and to solve ongoing problems that grant-funded programs may not address. So we believe that both formula funds and grant-funded programs have importance.

Mr. GOODLATTE. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. The chair thanks the gentleman and recognizes the gentleman from Maryland, Mr. Kratovil.

Mr. KRATOVIL. Thank you, Mr. Chairman.

Mr. Layton, welcome again. Congratulations on moving to a new area with your grape production. As I think you mentioned in your testimony, that has to be exciting and also has to be a little overwhelming, I would think.

But my question is, in deciding to do that or in making best efforts to make it a productive enterprise, were any of these research programs helpful to you?

Mr. LAYTON. Actually, they have been very important and useful. The first person that we went to when we started to talk about grapes was the extension viticulturalist from the University of Maryland, our land-grant college who has helped us. We have also looked extensively at research from the land-grants, particularly Virginia Tech, who has an extensive program, and University of California at Davis, which has extensive programs.

So it has been vital, particularly for a grower starting out with no knowledge of the subject. And, while there are a lot of commercial enterprises out there, the advice is very—grape-growing and wine-making tends to be—people do it by the seat of the pants. And that is not the way we wanted to address the enterprise. We wanted to address the enterprise from a scientific basis. And through the university systems and university research is the only way we could do that.

Mr. KRATOVIL. In terms of going into this new production, what have been the biggest challenges that you have faced in doing that?

Mr. LAYTON. The challenges for us have not been growing grapes or making wines; they have been regulatory, actually. Going through local and state regulatory processes has been the biggest challenge.

As a farmer, we weren't afraid of growing grapes. Growing grapes is different from growing corn and soybeans, but it is the same. We know how to grow crops, we understand disease, we understand insects, and we can do that. Making wine has been and continues to be a big challenge.

Mr. KRATOVIL. In terms of those regulatory challenges, having gone through it, what are your suggestions to make it easier for folks that are looking to go into new enterprises?

Mr. LAYTON. To find good people to give you advice. In our case, as I say, we started out with the viticulturalist from the University of Maryland, the Winery Association, and hired a top-flight consultant who knows what he is doing.

Mr. KRATOVIL. Okay.

Dr. Coston, the extension service—as I go around, I hear all kinds of farmers talking about the extension service. It is obviously a very unique program. In many states, including Maryland, budget cuts are obviously taking its toll. That has happened before, but are you concerned about the ability of programs in some states to continue to survive? And what is going to be the impact of that, in your view?

Dr. COSTON. Different states are facing different situations. As all of you are well aware, the extension service is a partnership among the Federal Government, state government, through its respective land-grant, and local government, counties in most cases. Those programs have been incredibly important; over 3,000 offices across the United States. Without them, there will be some critical issues that can't be addressed.

We believe that the U.S. Department of Agriculture needs to take advantage more and more of delivering programs through the extension service, as well as looking to other agencies across gov-

ernment. It is a unique system where people have standing in those communities and can be called on.

Mr. KRATOVIL. Okay.

Thank you, Mr. Chairman.

The CHAIRMAN. The chair thanks the gentleman and recognizes the gentleman from Pennsylvania, Mr. Thompson.

Mr. THOMPSON. Thank you, Mr. Chairman.

Dr. Coston, I know that, in particular, many universities do research but our land-grant universities do some excellent research in the area of agriculture. And I was curious to get your impression of the end result, the roll-out.

How well do we roll out those research findings that makes agriculture more successful, healthier, that type of thing? And what role does USDA—does USDA have a role in that, in partnering with your universities, to get that information out to the end-users, the agriculture community?

Dr. COSTON. Thank you for the question.

Indeed, the extension service is a great way that it is rolled out. Our researchers see themselves as public servants. And the research that goes on at our universities is not considered completed until someone is actually utilizing it. Certainly, the spectrum of research that is done, who utilizes it, in some cases, are very different people. In some cases, it is agricultural producers themselves; in other cases, it is other scientists learning and pushing their work forward.

We and USDA work very closely together. For example, in our state, we work very closely with the laboratories that the USDA Agricultural Research Service has, and work in concert with them in getting information they have included and out to producers, consumers, and others in our state that can use that to their advantage.

Mr. THOMPSON. Okay. Thank you.

The matching fund requirements included in many research grant programs are meant to leverage Federal funds with non-Federal funds. How does counting unrecovered indirect costs as matching funds contribute to the goal of making more funds available for direct spending on individual research projects?

Dr. COSTON. That is a challenge. Each university has a negotiated rate with the Federal Government for indirect cost recovery. The caps that have been placed in some of the agricultural appropriation bills around some of these programs are not at those negotiated rates. And it makes it work very well for universities if we can count that difference between the capped rate in these appropriations bills and the negotiated rate that we have as part of those matching requirements. Those indirect costs are real costs for the institution to be able to carry out the work.

Mr. THOMPSON. Okay. Thank you.

Mr. Layton, while I understand the significance of the newly created National Institute of Food and Agriculture, I note your testimony briefly mentions the in-house research agencies of the Department. Are these programs of limited value to research customers such as yourself?

Mr. LAYTON. The in-house research, ARS research, is extremely important to producers, in that grant-funded programs tend to be,

in some cases, aimed more toward basic research, which is very important, and tend to be aimed toward specific areas of interest.

I think with ARS and intramural research, we can, number one, have consistency over the long term. Many of our research needs may not be a 5 year project but may be a 20 year project, which fits better in the intramural research than extramural.

It also allows USDA to set priorities about problems or issues that there may not be a lot of interest about within the grant-funded programs. I think it allows our decision-makers to balance where research needs to be done, because with intramural they direct themselves.

And the balance between having intramural and extramural is very important to achieving the goals that we need to.

Mr. THOMPSON. Great.

Well, thank you to both you gentlemen for your testimony today.

Mr. Chairman, I yield back.

The CHAIRMAN. The chair thanks the gentleman and recognizes the gentleman from North Dakota, Mr. Pomeroy.

Mr. POMEROY. I thank the Chairman and regret that a conflicting meeting kept me from being here at the onset of this panel because I wanted to brag on my constituent, Dr. Coston, just for a moment.

Sometimes with a panel we hope to have a variety of the nation's regions and perspectives covered. Well, Dr. Coston represents them all in one person, given his experience at Clemson and as an Associate Director of South Carolina Ag Experiment Station. From there, he was the Associate Director and Chief Operating Officer of the Oklahoma Ag Experiment Station; interim Associate Director of the Oklahoma Cooperative Extension Service; and now in Fargo, at North Dakota State University, he is Vice President of Agriculture and University Extension. And, in his capacity with this university, he serves on the Board of Agriculture Assembly and the Association of Public and Land-grant Universities. So he brings a varied perspective to this question.

I want to pursue a little bit the question asked by Mr. Goodlatte, because I really think it does get to the foundation question of funding ag research. It is one we wrestle with: formula *versus* following emerging trends or something that is viewed to be of more topical and directed interest, earmarked funding or other competitive grant-funded ag research.

What is the role of, basically, these formula grants in terms of sustaining a research infrastructure at our universities?

Dr. COSTON. Congressman, thank you for the kind remarks.

And let me—I feel that I didn't answer Congressman Goodlatte's question quite definitively enough earlier. During the CREATE-21 process, the land-grant universities went on record as saying we supported new investment 70 percent into competitive programs, and 30 percent into capacity or formula programs. And that is the position we have had. So that is a little more definitive.

Those capacity programs are vital because, as my colleague here said, there are a lot of things that cannot be supported through competitive programs. The example I was going through earlier about the wheat varieties, ultimately those wheat varieties have borne out. And, in 2008, North Dakota wheat farmers sold in ex-

cess of \$2 billion of NDSU-derived varieties from those. And the germ plasm that came out of that program serves as the germ plasm source for the entire northern Great Plains. And I have talked with the scientist; he could not get—he could not get—competitive grants to support that work.

So there are certain things that they just don't happen. Part of it is because it is going against the dogma of the scientific community, and if it doesn't fit, the review panel may not fund.

The other important piece that the formula funds play is that that is the glue that holds the land-grant system together. There are in excess of 10,000 research scientists across this nation at land-grant universities, and counting out all the extension colleagues, *et cetera*, there are in excess of 30,000 people. These funds provide the communications and the incentive for us to work together.

And to draw a quick example, those of you who are familiar with Representative Pomeroy's state know that, this spring, we had devastating floods and terrible conditions. One of the things was, how to you do recovery? Part of that had to do with mold and things in homes and buildings following it. Kansas State has a remarkable program in that area with an incredible number of publications. We contacted them; we immediately had that information.

That is the glue, and that is a part of what these formula funds do. And every one of your districts benefits from the work that goes on in North Dakota; we benefit from the work that goes on in California, or Maryland, or wherever.

Mr. POMEROY. You remind me when you mentioned the flood fight, you clean up pretty good for a hearing. I have seen you in muddy jeans in the flood-bedraggled conditions we all had as we fought that flood.

Dr. COSTON. Yes, sir. We all do what we have to.

Mr. POMEROY. You are also—my time is about out, but you are Chairman of a committee working with USDA as they implement the new title pursuant to the farm bill. How are you coming?

Dr. COSTON. I would say we are cautiously optimistic. We are pleased with things to date. We want to see things move forward quickly. And we are committed to working with the Under Secretary and the new Director of the National Institute to implement these things.

Mr. POMEROY. I thank the Chairman.

We will see you at homecoming, Dr. Coston.

The CHAIRMAN. The chair thanks the gentleman.

And thank you, Dr. Coston and Mr. Layton, very much.

Under the rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from the witnesses to any question posed by a Member.

This hearing of the Subcommittee on Conservation, Credit, Energy, and Research is adjourned.

[Whereupon, at 11:40 a.m., the Subcommittee was adjourned.]