

Statement of **Joseph H. Layton, Jr.**

on behalf of the

USDA National Agricultural Research, Extension,  
Education and Economics (NAREEE) Advisory Board  
and  
National Coalition for Food and Agricultural Research  
and  
American Soybean Association

Before the  
Committee on Agriculture  
Subcommittee on Conservation, Credit, Energy and Research  
U.S. House of Representatives

Hearing to Review Implementation of the  
Research Title of the 2008 Farm Bill

September 30, 2009

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 underfunded 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 underfunded.

## **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 conservation; 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 9 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 wakeup 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 3 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.

## **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 efficiently, 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.