



NATURAL SCIENCE COLLECTIONS ALLIANCE

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May 29, 2009

Dr. Rajiv Shah
Under Secretary for Research, Education, and Economics
United States Department of Agriculture
1400 Independence Avenue SW
Washington, DC 20250

Re: Request for comments regarding the Roadmap for agricultural research, education, and extension (REE_2009-0001)

Dear Dr. Shah,

Thank you for the opportunity to provide comments on the development of a roadmap for agricultural research, education, and extension at the US Department of Agriculture (USDA).

The Natural Science Collections Alliance is a nonprofit association that supports natural science collections, their human resources, the institutions that house them, and their research activities for the benefit of science and society. We are comprised of over 100 institutions who are part of an international community of museums, botanical gardens, herbariums, universities and other institutions that house natural science collections and utilize them in research, exhibitions, academic and informal science education, and outreach activities.

In looking at the future of agricultural research at USDA, several research and planning topics should be addressed to better serve the needs of the research community and farmers. The Roadmap for agricultural research, education, and extension should address the need for scientific collections, competitive extramural grants, and workforce planning.

Scientific Collections

Natural science collections are valuable assets that help answer science questions that inform pressing policy issues, such as climate change, emerging diseases, loss of biodiversity, environmental contaminants, and pest invasions. Scientific collections are irreplaceable specimen and data repositories that are the basis for significant fields of scientific research, monitoring, and education. The USDA maintains 60 scientific

collections, including biological specimens (e.g., native and weed plants, insect pests), tissue and cell cultures, fossils, and rocks and minerals.

In 2005, the Office of Science and Technology Policy recognized the value of scientific collections and commissioned the first ever survey of federal scientific collections. The Interagency Working Group on Scientific Collections (IWGSC), co-chaired by USDA and the Smithsonian Institution, was formed to survey the status of federal scientific collections and to make recommendations for their management and use. In the report released this year, the IWGSC found that “these scientific collections are essential to supporting agency missions and are thus vital to supporting the global research enterprise.” The Roadmap should build upon the work of the IWGSC to continue the preservation of scientific collections and to collaborate with other agencies to expand access to federal collections by the research community.

Extramural Research

In 2000, the National Research Council evaluated the USDA’s competitive research program, the National Research Initiative Competitive Grants Program. The report recommended “continuing the process of merit-based peer review as the most effective method of competitively distributing funds for research in food, fiber, and natural resources.” Although this program was reauthorized in the 2008 Farm Bill as the Agricultural and Food Research Initiative, the underlying merit of this program remains. Indeed, Congress recognized the importance of this program when it authorized funding of up to \$700 million a year for competitive grants. In fiscal year (FY) 2009, the program was appropriated \$201.5 million. The President’s budget request for FY 2010 would flat fund the program. This level of funding is far short of levels recommended by the National Academies and authorized by Congress. The Roadmap should outline a plan to increase competitively awarded research grants in the coming years. The USDA should seek to fully fund AFRI at its authorized level of \$700 million.

Workforce

Planning for the future of agricultural research also requires the consideration of an adequate workforce. Training, recruitment, and retention of scientists specializing in many biological, chemical, and statistical fields will be needed to fully implement the Roadmap. According to the ARS Workforce Plan for 2006-2010, 35 percent of research and service scientists within the agency will be eligible to retire by 2010. Recruitment of new scientists to replace retirees will be challenging because of declining student enrollment in soil and crop science programs and the difficulties of hiring postdoctoral scientists who are not US citizens. Indeed, ARS believes that more than half of Ph.D. graduates in relevant fields are ineligible for employment at the agency for this reason. The Roadmap should outline a plan for ensuring adequate numbers and qualifications of agricultural research staff in coming years, including support for graduate research fellowships. Additionally, the Roadmap should address the availability of extension workers that are able to communicate science to stakeholders.

On behalf of our members, we thank you for your consideration of our comments. If the Natural Science Collections Alliance may provide further assistance to you on this or other matters, please do not hesitate to contact Director of Public Policy Dr. Robert Gropp at 202-628-1500.

Sincerely,

A handwritten signature in black ink that reads "Michael A. Mares". The signature is written in a cursive style with a large, sweeping initial "M".

Michael A. Mares, Ph.D.
President, NSC Alliance, and
Director and Joseph Brandt Professor
Sam Noble Oklahoma Museum of Natural History
University of Oklahoma