

ORGANIC FARMING RESEARCH FOUNDATION

June 7, 2010

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Re: Comments in response to the National Institute of Food and Agriculture's solicitation of input from stakeholders regarding the Agriculture and Food Research Initiative

Docket Number NIFA-2010-0001

Comments delivered orally at June 2 stakeholder meeting and submitted electronically through afri@nifa.usda.gov

Dear NIFA Administrators and Program Leaders:

Thank you for the opportunity to provide comments on the 2010 AFRI RFAs.

The Organic Farming Research Foundation (OFRF) is a national, farmer-directed charitable organization that promotes the improvement and widespread adoption of organic farming systems through grantmaking, education, and policy analysis.

Farmers formed OFRF twenty years ago in response to a need for research into organic systems that was not being met at USDA or elsewhere. Twenty years later, research funding at USDA and NIFA still lags far behind organic agriculture's presence in the marketplace. For example, funds going to organic research at NIFA represent only approximately 2.2% of its budget,¹ despite the fact that food sold under the organic label represents about 3.5% of the food sold in the U.S. AFRI must do its part in closing that funding gap and must more directly support research into organic farming systems.

More importantly, AFRI must explicitly support research into organic farming systems because these systems offer multiple environmental, economic, and social benefits to society and have significant potential for delivering on the research outcomes that the agency has identified. In the face of multiple emerging crises related to agriculture, OFRF applauds NIFA for boldness and urgency in framing a set of critical priorities and for extending research on these priorities through AFRI. We make the following recommendations for improving the AFRI RFAs to facilitate outcomes on the priorities:

- Fully leverage the benefits of organic agriculture to achieve desired outcomes:
 - Global food security: A growing body of scientific literature identifies organic agriculture as being more conducive to food security in places

¹ OFRF estimates total FY 10 organic spending within NIFA at approximately \$33 million out of \$1.5 billion. This includes: OREI (\$20 million), ORG (\$5 million), and other NIFA grants (\$8 million).

such as Africa than most conventional production systems.² Barriers to adoption include lack of farmer knowledge of organic and a policy emphasis on producing cash crops for export rather than better-adapted crops for local consumption. For the U.S. and developing countries, AFRI should prioritize rapid improvement of organic systems and extension of organic technologies to farmers. In all cases, factors to be addressed are improving soil quality, plant breeding for good performance in organic systems, managing soil microbial ecology for optimal nutrient cycling, and developing ecosystem-based pest management strategies.

- Climate change: Life cycle analyses of the U.S. food system reveal that approximately 40% of energy used in conventional agriculture goes into making synthetic fertilizers and pesticides.³ Lower energy use and higher levels of soil organic carbon accumulation in organic systems indicate their high potential to mitigate climate change. AFRI should investigate the potential of organic systems to sequester carbon and invest in studying alternatives to synthetic fertilizers and pesticides.
- Bioenergy: AFRI should support the integration of cellulosic biofuels as part of diversified, regional agricultural systems in order to reduce energy waste in agricultural production. AFRI must support research into cropping systems that provide high-residue yields above levels necessary to maintain soil organic carbon levels.
- Childhood obesity prevention: Early evidence suggests a link between obesity and exposure to endocrine-disrupting environmental pollutants.⁴ AFRI should support further research into this potential link and strategies for reducing exposure to these pollutants. In addition, scarcity of affordable fresh fruits and vegetables is increasingly linked to obesity. Under this priority AFRI should fund programs that increase access to affordable and fresh fruits and vegetables to urban and suburban consumers. Evidence suggests that nutrient levels in food crops have declined in the U.S., possibly contributing to obesity and other health issues. AFRI should fund studies that objectively analyze the amounts of recommended daily nutrients provided by modern cultivars. AFRI should also fund

² Hine, R. and Pretty, J. 2008. *Organic agriculture and food security in Africa*. United Nations Conference on Trade and Development (UNCTAD) and United Nations Environment Programme (UNEP): Geneva and New York.

³ Heller, M.C. and Keoklain, G.A. 2000. Life cycle-based sustainability indicators for assessment of the US food system. Report No. CSS00-04, University of Michigan, Center for Sustainable Systems, Ann Arbor.

⁴ Grün, F. and Blumberg, B. 2009. Endocrine disrupters as obesogens. *Molecular and Cellular Endocrinology*, 304 (1-2): 19-29.

research investigating crop management practices that can be used to enhance nutrient content of food crops.⁵

- Food safety: AFRI should support research into health impacts of the use of agricultural chemicals, genetically-engineered organisms, and antibiotics in animal agriculture. AFRI should also support research documenting the role of soil microbial diversity in enhancing food safety by competing with microbial pathogens.
- As AFRI program administrators and leaders pursue productive outcomes to these priority topics, we encourage you to develop systemic approaches to these challenges that reflect an understanding that the problems are interconnected.
- Crop and livestock breeding is an underlying component of each of the priorities. Breeding for locally adapted, high performing crop and livestock species is a crucial part of meeting each of the identified priorities. Making large funding commitments to systems focused on production of a single crop or single animal breed is a narrow approach to take when sustainability is an aim. Instead of one-crop, one-breed approaches, AFRI must support research into diversified crop-livestock systems and their potential for sustained productivity and profitability.
- The 2008 Farm Bill created classical plant and animal breeding as new categories within AFRI. The 2010 Climate Change RFA was encouraging because it contained language supporting classical breeding. At the same time it also created barriers to development of publicly-held cultivars through AFRI-funded work. Requirements to submit proposals for projects that use high-cost genomics technologies clearly favors industry developing transgenic crops and makes very few, very large grants accessible to very few, very large institutions. Globally there is a lack of locally adapted crops that perform well under conditions of unpredictable climatic change. This is causing a crop and livestock breeding crisis that has severe implications for food security and people's ability to adapt to global climate change. AFRI must support breeding that meets the immediate needs of organic farmers worldwide through the creation of distinct programs for conventional plant and animal breeding focused on the development and release of locally adapted, environmentally resilient cultivars.
- AFRI must ensure balanced and diverse review panels that include organic researchers, educators, and farmers.
- We support the focus on aligning research, extension, and education activities and think that this must be extended to the Foundational Program so that it supports integrated activities rather than only research projects.

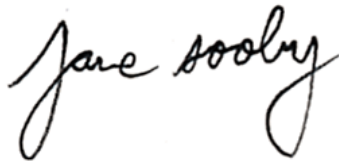
⁵ Sooby, J. and Zhou, X. 23 October 2009. Focus on Enhancing Phytochemical Content. *Science*, 326: 523.

In conclusion, NIFA can better hope to achieve the desired research outcomes by significantly increasing its investment into organic systems. Thank you for this opportunity to comment and for giving OFRF's comments your full consideration.

Sincerely,

A handwritten signature in black ink that reads "Ariane Lotti". The script is fluid and cursive.

Ariane Lotti
Policy Associate, Organic Farming Research Foundation

A handwritten signature in black ink that reads "Jane Sooby". The script is fluid and cursive.

Jane Sooby
Grants Program Director, Organic Farming Research Foundation

Cc:

Dr. Roger Beachy, Director, National Institute of Food and Agriculture
Dr. Deborah Sheely, Deputy Administrator, NIFA Competitive Programs Unit
Dr. Mark Poth, Research Director, AFRI Program Office
Dr. Diana Jerkins, Acting Integrated Programs Director, AFRI Program Office