

Dear Colleague Letter: Announcement of Upcoming Requests for Proposals for the UVM Food Systems Research Center

March 10, 2022

Dear Colleague:

Overview:

The Food Systems Research Center (FSRC) at The University of Vermont (UVM) is a collaboration with the US Department of Agriculture's (USDA) Agricultural Research Service (ARS), established in 2019. The FSRC conducts inter- and transdisciplinary research to develop solutions for improving human health, well-being and livelihoods, and environmental sustainability through food systems— the networks of people, institutions, physical infrastructure, and natural resources through which food is grown, processed, distributed, sold, prepared, and eaten.

The FSRC is pleased to announce forthcoming internal funding opportunities that align with its mission and vision to further food systems research and solutions for local and regional food systems through engaged scholarship with community partners. Funding for these opportunities is made available through the current Cooperative Agreement with the USDA ARS, including for specific funding priorities. The purpose of this Dear Colleague Letter is to make UVM researchers and potential collaborators aware of the forthcoming topical areas of focus for funding in Spring 2022 and provide time for teams to develop, discuss ideas, and work with community partners in advance of the proposal due dates. We anticipate all RFPs will be released by the end of April 2022.

Forthcoming RFPs:

1. Assessing multiple dimensions of sustainability in small and medium farms and food systems in Vermont

Small and medium farms and food businesses are at the core of Vermont and New England's food system, yet there is little holistic understanding of the multiple ways in which they contribute to sustainability outcomes, including their benefits to rural communities. In 2020, the FSRC [funded seven white papers](#) to identify potential ways to assess and understand the sustainability contributions of small and medium farms. These white papers were integrated into a sustainability framework to assess the potential ways that small and medium farms contribute to five areas of sustainability: production, economic, environmental, human, and social components (Figure 1). This framework includes some potential ideas about the ways these five dimensions could be measured and the challenges and opportunities that may occur when collecting this data with community partners.

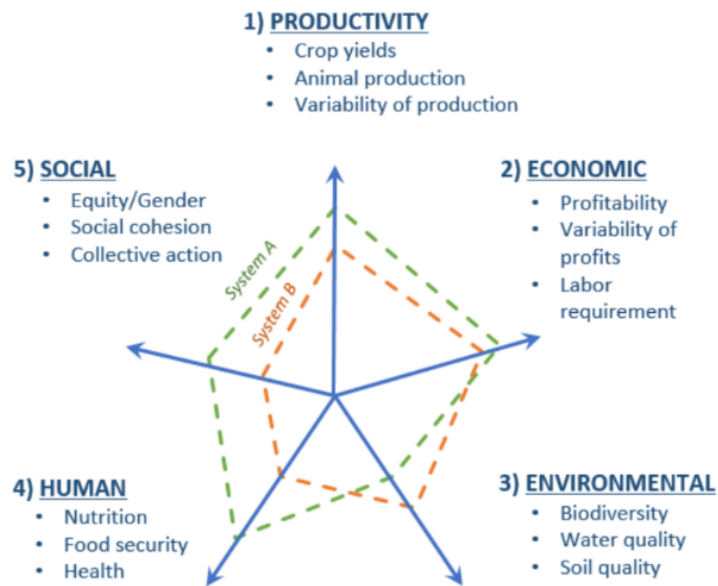


Figure 1. Example components (not exhaustive) of five dimensions of sustainability for consideration in small and medium farms.

To follow up on this seminal work, the FSRC anticipates funding five proposals, one for each dimension of the sustainability framework. The core of this funding will be to identify the data necessary to measure aspects of sustainability within a given dimension, collect data within these metrics, and assess logistics, tradeoffs, and community engagement around these efforts. Areas for consideration in this RFP will likely include:

- Determination of data to measure dimensions of sustainability
- Assessment of tradeoffs and

challenges for data collection, including the cost and labor of data collection, and the relative impact on communities

- Original data collection in one of the five dimensions of sustainability (all five will be funded, we anticipate funding one team from each of the dimensions)
- Engagement with community partners in collecting data on sustainability and reducing data collection burden, especially in marginalized and historically underserved communities or groups
- Coordination of data collection across teams
- Integration of data across dimensions of sustainability, including coordinated workshops with all teams
- Visualization of metrics and data in creative ways that communicate with general audiences
- Ideas for future streamlined processes for data collection, integration, and community engagement

Clear and meaningful engagement with community partners will be a requirement for this proposal, as evidenced by letters of support, integration into a research proposal and data collection, and funding included in a budget for participation for community partners and individuals representing multiple perspectives. The FSRC anticipates funding proposals for five total teams, one for each dimension, with anticipated funding for each team between \$400,000- \$500,000 for a 2-3 year duration, which includes the cost of a post-doctorate for each team.

2. Genetic, environment and management effects on the nutrition of culturally, historically and economically important foods of the Northeast

The genetic traits of a crop or animal, the environment in which the crop or animal exists, and the ways in which crop and animal systems are managed are critical for many components of animal and crop productivity. Furthermore, the genetics, environment, and management (GEM) of a system can interact in unique ways to affect crop and animal outcomes. Growing evidence also suggests that GEM interactions may affect the nutrient composition of crop and animal products, thereby having a direct link to human nutrition. For example, there is evidence that milk resulting from grass-based dairy production, compared to grain-based production systems, have higher levels of essential fatty acids.

The Northeast includes a variety of examples of unique GEM interactions, which may affect the nutrients found in crops and animals. Small and medium farms and food producers often utilize unique alternative management or production systems, rely on culturally or historically important traits, seeds, or breeds, incorporate manure-based fertilizers in production, and invoke terroir into their product profiles. As such, Vermont and New England's small and medium farm and food producers may enable further understanding of how these characteristics affect the nutrients found in food.

Linking GEM interactions from lab to farm to plate is fundamentally a food systems challenge requiring inter- and transdisciplinary research. The USDA ARS currently manages a large database—[Food Data Central](#)—that provides data and information about the nutritional profiles of foods. In 2020, [the Agency announced](#) a new distinct data type within Food Data Central, Experimental Foods, which contains nutritional information about “foods produced, acquired or studied under unique conditions, such as alternative management systems, experimental genotypes, or research/analytical protocols”. This data will allow further understanding of how a range of factors, including GEM interactions, may affect nutritional profiles of foods, as well as the sustainability of food systems. The result of research funded through this proposal will be included in the Experimental Foods section of Food Data Central, contributing important information about GEM interactions and nutritional outcomes from Northeast food systems.

The FSRC anticipates funding multiple proposals, totaling up to \$250,000, to explore GEM interactions in small and medium farm and food processor products. Proposals that consider GEM interactions in crops, animals or foods that are native to the region, provide cultural or historical importance to Indigenous, New American, or underserved communities, or are of critical economic importance to the region's food systems are especially encouraged. Proposals may request funding for new experimental research and data collection or add nutritional composition analysis to existing research efforts to assess GEM interactions in current studies. We expect third party vendors would conduct the nutritional composition analysis of foods resulting from these experiments, and use of funds in this way is appropriate.

3. Equipment to support food systems research

Food systems research involves many disciplines and methodological approaches from basic to applied research. Equipment is critical for conducting food systems research of all types both qualitative and quantitative and necessary to achieve high-quality research outcomes. Collaborative research teams often share equipment, making efficient use of equipment for the greatest number of people and projects.

The FSRC anticipates funding proposals for shared equipment relevant to food systems research at UVM. Applicants will be encouraged to consider how the equipment addresses the mission and vision of the FSRC, how it will be shared across one or more teams, departments or colleges and a plan for doing so, and any additional maintenance or servicing costs in the future.

The FSRC anticipates funding equipment requests totaling up to \$325,000.

If you have any questions about this Dear Colleague Letter, please contact the Associate Director, Meredith Niles, at mtniles@uvm.edu.

Sincerely,

Dean Leslie Parise, Principal Investigator

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