Welcome to FFAR’s Public Conversation

October 5, 2023
Vice Chair’s Remarks
FFAR Grants By The Numbers

360
GRANTS AWARDED

1:1.4
MATCHING RATIO

$713M
FUNDING AWARDED
FFAR Board Members

- Kyle Bridgeforth
- Joe Del Bosque
- Doug Buhler
- Doug Cameron
- Nancy Creamer
- David Donnan
- Hon. Dan Glickman
- Krysta Harden
- Denise Heard
- Venkata Kishore
- Michael Ladisch
- Carolyn Lawrence
- Chris Mallett
- Pam Marrone
- Ben Noble
- Donald Nkrumah
- Stanley Prusiner
- Danita Rodibaugh
- Polly Ruhland
- Alton Thompson

Ex-Officio Members

- Tom Vilsack
- Chavonda Jacobs-Young
- Susan Marqusee
- Manjit Misra
- Simon Liu
USDA’s AIM for Climate Summit

USDA Secretary Tom Vilsack and Former Vice President Al Gore

FFAR staff exploring a virtual reality exhibit

From Left: FFAR’s Executive Director Dr. Saharah Moon Chapotin, DMI’s Dr. Tim Kurt, NuCicer’s Kathryn Cook and Lakner Farms’ owner Jeff Lakner
FFAR’s Congressional Reception

Senate Agriculture Committee Chairwoman Debbie Stabenow (D-MI)

Sen. Mike Braun (R-IN)

Rep. Jim Baird (R-IN)
Welcoming Secretary Tom Vilsack
Executive Director’s Address
Our Mission

We build unique partnerships to support innovative science addressing today’s food and agriculture challenges.

Our Vision

We envision a world in which ever-innovating and collaborative science provides every person access to affordable, nutritious food grown on thriving farms.
We Fund Pioneering Research

By focusing on these key challenge areas:

Next Generation Crops
Advanced Animal Systems
Sustainable Water Management
Health-Agriculture Nexus
Urban Food Systems
Soil Health

We also fund climate-smart research through our initiative.
FFAR Consortia

Our consortia convene partners to fund research for the common good.
We Invest in the Scientific Workforce

BY FOSTERING THESE PROGRAMS:

- NAS Prize in Agriculture Science
- New Innovators in Food and Agriculture
- Kirchner Food Fellowship
- FFAR Fellows
- Veterinary Student Research Fellows
- OCP Fellowship
FFAR Awards 2015 - 2023

FFAR Award Portion  Matching Award Portion

|$10,000,000 |
|$20,000,000 |
|$30,000,000 |
|$40,000,000 |
|$50,000,000 |
|$60,000,000 |
|$70,000,000 |
|$80,000,000 |
|$90,000,000 |
|$100,000,000 |

Matching Funders & Grantees

Percent Matching Funds Received, by Donor Type
Inception through 2022

- 33% Foundation
- 0.4% Individual
- 1% Other
- 4% State, Municipal & Int’l Governments
- 17% Academic
- 26% Industry
- 18% Non-profit & Commodity Groups

Percent of Total FFAR Grantees, by Institution Type
Inception through 2022

- 70% Academic
- 0.003% State, Municipal & Int’l Governments
- 2% Other
- 3% Federal
- 4% Foundation
- 8% Non-profit & Commodity Groups
- 13% Industry
Impacts & Updates
Impact in Action

FFAR’s Impact Report highlights:

• FFAR awarded 68 new grants in 2022 totaling $128M of which $82M amount was leveraged from non-federal sources

• 92% of FFAR grantees secured additional funding from a variety of sources during and after receiving FFAR funding.

• Read our Impact Report for project impacts including how OpenTEAM is developing soil health management tools, progress on responding to coffee leaf rust disease, breeding cattle for heat tolerance & more
AIM for Climate Summit

• FFAR supported the AIM for Climate Summit, hosted by USDA in May 2023.
• FFAR staff supported this successful global event from planning stages through execution.
• We also led a plenary session on the importance of agriculture climate research that featured remarks from several FFAR stakeholders.
Efficient Fertilizer Consortium

- Funding research to help farmers use novel and current fertilizers more efficiently, improve soil fertility, decrease input costs, reduce nitrous oxide emissions and improve global food security.

- **Cotton Inc., Pivot Bio, United Soybean Board** and **UK FCDO** have signed on; additional members will be announced this Fall.
Reducing Emissions in Cattle

The Global Methane Hub recently joined as a partner and existing steering committee members contributed additional funds.

- GCI recently awarded its first three grants:
  - The University of Illinois is leading an international research study on how diets and different additives in beef and dairy cattle affect enteric methane production.
  - The University of Madison-Wisconsin is combining interventions that address selective breeding, data on milk composition and rumen microbes to reduce enteric methane emissions.
  - Penn State University is developing new enteric methane inhibitors and efficient delivery methods to decrease enteric methane emissions.

- The Consortium is exploring further partnerships to coordinate additional grantmaking.

- Additionally, a Seeding Solutions grant to Pennsylvania State University researchers is investigating using an anti-methanogenic compound derived from plant and fungal sources as a feed additive to reduce enteric methane in ruminants.
The FFAR-OCP Disruptive Fertilizer Technology Fellows Program is enhancing fertilizer efficiency research & technology development.

In June 2023, FFAR & OCP North America announced three fellows as our first cohort.
In Nov. 2022, FFAR awarded $1M to Tuskegee University to create an endowment to advance organic agriculture and farming practices.

Clif Bar & Company provided a matching $1M for a total $2M investment.

This award will fund future research opportunities & activities that increase organic farming practice adoption in the Southeast.
ACTION RFA

• The Achieving Conservation through Targeting Information, Outreach and Networking (ACTION) program promotes projects that increase farmer & landowner adoption of conservation practices.

• Walton Family Foundation provided matching program funds.

• Three awardees to be announced soon.

• Research seeks to understand how to best support farmers’ use and adoption of conservation practices including edge-of-field practices such as wetlands, buffers and controlled drainage.
Intersection of climate mitigation and adaptation: this overarching topic is mission critical

▪ How can we build the knowledge base for a resilient agriculture system that can cope with climate impacts?
▪ Targeted research on diversification of production systems as a climate solution for resilience both economically and physically.

Agroforestry as a climate solution

▪ Identify practical agroforestry solutions, the economic value to farmers and benefit for emissions/sequestration/resilience and what it would take to scale these solutions.

Pasture and grazing lands

▪ Look for key questions of interest for both mitigation and adaptation, as well as biodiversity co-benefits.

Social science research

▪ Barrier to supply chain action is farmer recruitment. Can evaluation of existing/past programs help inform new program design?
Research Strategy
Research Strategy Development Process

- Theory of Change
- Stakeholder Input
- Analysis
- Implementation
Stakeholder Input
By the Numbers

76
WRITTEN COMMENTS SUBMITTED

17
EXPERTS IN PANEL DISCUSSIONS

50+
FOOD AND AGRICULTURE STAKEHOLDER ORGANIZATIONS INTERVIEWED
Our Research Goal

A U.S. food and agriculture system that supports producers and their communities, sustains the environment and equitably nourishes our population
Priority 1: Cultivating Thriving Production Systems
Priority 2: Sustaining Vibrant Agroecosystems
Priority 3: Bolstering Healthy Food Systems
Priority 4: Strengthening the Scientific Workforce
The Impacts We Seek

- Sustainably Intensified Production
- Increased Environmental Sustainability
- Improved Human Health
Working Across the Whole Value Chain

- Improved animal breeds & crop varieties
- Approaches & tools for ensuring animal welfare
- Tools for managing crop pests & diseases
- Tools & practices for curbing agriculture’s impact on the environment

- Sustainable food packaging
- Improved ingredients
- Data for food traceability & transparency

- Alternative proteins
- Metrics for nutritional quality
- Understanding of consumer behavior & demands
- Approaches and tools for improving food safety

Inputs → Primary Production → Processing → Retail/Food Service → Consumers → Resource & Waste Recovery
Key Drivers

- Diversity, Equity & Inclusion
- Complementarity with Federal Agencies
- Matching Funds
- Industry Collaborations

- Geographic Scope
- Excellence Through Competition
- Actionable Science, Translational Research
- A Convergence Approach
The Research Continuum

Basic
Basic research is directed toward greater knowledge or understanding of the fundamental aspects of phenomena.

Translational
Translational research puts the findings of basic science to productive use, turning knowledge into tools and technologies.

Adaptive
Adaptive research is designed to adjust a technology to specific conditions or to customize a technology.
## Research Strategy Implementation

<table>
<thead>
<tr>
<th>Research Strategy</th>
<th>Workplan</th>
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<tbody>
<tr>
<td>2024-2028</td>
<td>Annual</td>
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<tr>
<td>High-level</td>
<td>Identifies specific objectives</td>
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<tr>
<td>Lays out priorities, key drivers and desired impacts</td>
<td>Aligns with priorities, key drivers and desired impacts</td>
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<td>Informed by stakeholder input</td>
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Looking Forward

- We will continue to communicate the results from our Research Strategy Refresh in the coming months and are looking forward to funding new bold research that aligns with our refreshed strategy.

- FFAR is continuing to expand our investment in climate research. We remain engaged as AIM for Climate partners and will be present at COP28.

- We look forward to growing our Scientific Workforce Development programs by supporting existing fellowship programs and developing new opportunities.

- We are continuing to track and communicate our impacts.

- FFAR is dedicated to enhancing our DEI efforts and continuing to build programs and relationships that reflect inclusivity and equity.
Public Comments & Questions
Thank You