



National Institute of Food and Agriculture
U.S. DEPARTMENT OF AGRICULTURE

BIOENERGY, CLIMATE, AND ENVIRONMENT
FOOD PRODUCTION AND SUSTAINABILITY
YOUTH, FAMILY, AND COMMUNITY
FOOD SAFETY AND NUTRITION
INTERNATIONAL PROGRAMS

NIFA

NIFA Update | Fall 2022

Rubella Goswami, Ph.D., Director, Division of Plant Systems-Protection

Vijay Nandula, Ph.D., NPL, Plant Systems-Protection

Emmanuel Byamukama, Ph.D., NPL, Plant Systems-Protection

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USDA IS AN EQUAL OPPORTUNITY PROVIDER, EMPLOYER, AND LENDER



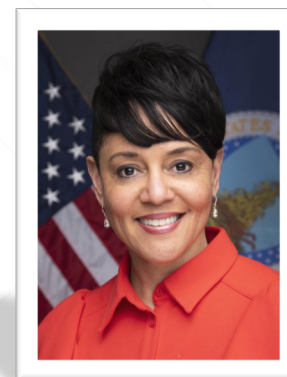
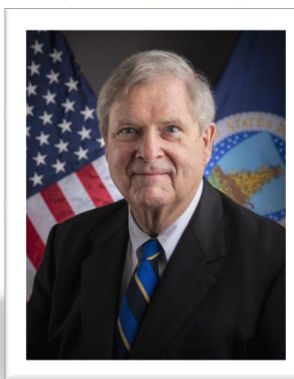
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USDA and REE Leadership

USDA Secretary
Hon. Tom Vilsack

USDA Deputy Secretary
Dr. Jewel Bronaugh

Research, Education, Economics
[REE] Mission Area
Under Secretary
Dr. Chavonda Jacobs-Young



See complete USDA Organization Chart [here](#).

NIFA Leadership and Staffing

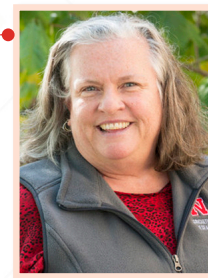
- October 1, 2019: Relocated from Washington, DC to Kansas City, MO.
- June 15, 2022: 323 staff at NIFA (~20 staff in DC)
- Goal: 393 total FTE (385 permanent + 8 temporary students/interns)
- NIFA staff have been working remotely since March 2020
- Senior Executives must telework (in the office 2 days a pay period)
- New hires all work remotely



NIFA Acting Assoc Director
for Programs
Mr. Brent Elrod



NIFA Acting Director
Dr. Dionne Toombs
(Director, Office of the Chief Scientist)



Deputy Director, Institute of Food
Production and Sustainability
Dr. Deb Hamernik



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NIFA Priorities

- Addressing the Administration's priorities
- Supporting partners in addressing critical needs
- Realizing the agency NIFA was created to be



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USDA Priorities

- Addressing Climate Change via Climate-smart Agriculture and Forestry
- Advancing Racial Justice, Equity and Opportunity
- Creating More and Better Markets Opportunities
- Tackling Food and Nutrition Insecurity and Food Safety
- Making USDA a Great Place to Work for Everyone

USDA Strategic Plan 2022-2026

<https://www.usda.gov/sites/default/files/documents/usda-fy-2022-2026-strategic-plan.pdf>



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Climate Change

Expertise in climate-smart agriculture and forestry practices

Passion and commitment from stakeholders

U.S. leadership in climate change mitigation

- NIFA Climate Adaptation and Resilience Plan published
- Exploring all programs for climate change-related funding opportunities
- Advancing environmental justice and the White House Justice40 initiative
- Creating a new vision for leading in climate change research funding
- Developing a 10-year road map for Land-grant research, education and Extension



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Nutrition Security

www.nifa.usda.gov/topics/food-nutrition-security

- Supporting Innovative Inter- and Trans-Disciplinary Solutions
- Harnessing a Holistic Research Agenda, From Farm-to-Fork
- Integrating with Climate-Smart Agriculture
- Empowering Individual and Community Agency
- Ongoing Webinar Series



Enhanced Market Opportunities

Focus on Innovation & Development of New Markets that are Fair, Competitive, Distributed and Resilient, including:

- Processing & distribution capacity
- Local & regional food systems
- Organic & emerging opportunities
- Safeguarding animal & plant health
- Regional Rural Development Centers digital dashboard
- Enhanced funding for the Farm and Ranch Stress Assistance Network



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Diversity, Equity, Inclusion, & Accessibility (DEIA)



Assess current practices and develop action items to advance diversity, equity, inclusion and accessibility across the agency.

- Focus for 4-H and Youth Programs
- Grantsmanship
- Recruitment
- Processes



Addressing needs of partners

- Funding collaborative projects that **deliver solutions**
- Listening through input sessions
- Adding more webinars and feedback sessions
- Focusing on high-quality customer service
- Enhancing the 4-H Headquarters with strong, experienced leaders and new science advisors at LGUs
- Hiring strategically to provide for better support



EVENT NIFA Listening Session for Stakeholder Input to Science Priorities

SHARE    

NIFA is accepting input from stakeholders regarding research, Extension and education priorities of NIFA, which has the mission of investing in and advancing agricultural research, Extension and education to solve societal challenges. For the purpose of this opportunity, agriculture is defined broadly and includes research, Extension and education in food, fiber, forestry, range, nutritional and social sciences, including food safety and positive youth development. NIFA's investments in transformative science directly support the long-term prosperity and global pre-eminence of U.S. agriculture in food and agriculture.

Effort to obtain input regarding the challenges, needed breakthroughs, and priorities will be carried out through online and virtual submission mechanisms. Stakeholder input received from the two mechanisms is treated equally.

This 2022 listening opportunity allows stakeholders to provide feedback on following topics:

- What are your top priorities for research, Extension or education for NIFA?
- What are the most promising opportunities/solutions for advancement of these food and agricultural priorities?
- What are the greatest challenges that you see facing food and agriculture in the coming decades, and what fundamental knowledge gaps exist that limit the ability of research, Extension, and education to respond to these challenges?
Based on those challenges, what general areas of food and agricultural research should be advanced and supported to fill the knowledge gaps, and what is your top priority for research, Extension, and/or education for NIFA investment?
- How accessible do you find information about NIFA programs and activities to be?
- What can NIFA do to make information and resources more accessible?
- What is NIFA doing right, and are there opportunities to improve?

NIFA welcomes stakeholder input from any group or individual interested in agricultural research, Extension or education priorities for NIFA, and is eager to listen to comments on the challenges, needed breakthroughs, and priorities, solutions and opportunities that will facilitate long-term sustainable agricultural production, research, education and extension. This listening effort will focus on the agricultural science that NIFA invests in, and not on NIFA processes or procedures.

<https://www.nifa.usda.gov/nifa-listens-2022>

**Wed,
November 2
8:30 a.m. to 6
p.m. EDT**



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NIFA Support for Responding to Emergencies

Smith-Lever Special Needs Competitive Grants Program

- Supports emergency preparedness and response education programs

Smith-Lever, 1890 Extension Capacity Funds

- Trained agents on the ground, ready to respond

Rapid Response to Extreme Weather Events, AFRI A1712 , Foundational and Applied Science

- Supports urgent solutions in rapid response to extreme weather; rolling letter of intent deadline



Picture of a hurricane image off the East coast of Florida



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Realizing NIFA's Potential

- Fully staffed NIFA workforce
- Improving NIFA processes
- Increasing customer service
- New NIFA website launched
- Re-engineering RFAs
- NIFA Reporting System



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Topics Covered by NIFA Programs



Advanced Technologies

Bioenergy; Biotechnology;
Nanotechnology



Animals

Animal Breeding; Animal Health;
Animal Production; Aquaculture



Business and Economy

Markets and Trade; Natural Resource
Economics; Small Business



Natural Resources

Forests; Grassland and Rangeland; Soil,
Water, and Air



Education

Minority Serving Institutions; Teaching
and Learning; Workforce Development



Environment

Climate Change; Ecosystems; Invasive
Pests and Diseases



Farming and Ranching

Agriculture Safety & Technology; Farmer
Education; Organic & Family Farms



Human Sciences

Community Vitality; Family Well-Being;
Youth



Food Science

Food Quality; Food Safety



Food and Nutrition Security

Nutrition; Obesity; Wellness



International

Global Engagement; Global
Food Security



Plants

Crop Production; Pest
Management; Plant
Breeding; Plant Health



Funding Categories

- **Capacity Grants** - for Land-grant institutions, schools of forestry, and schools of veterinary medicine to fund research and Extension activities. The amount of funds provided to each institution is determined by a formula.
- **Competitive Grants** - for fundamental and applied research, Extension and higher education activities, as well as for projects that integrate research, education and Extension functions. Individuals, institutions, or organizations may apply according to criteria listed in the Request For Applications (RFA).
- FY 2022 NIFA budget: ~ \$1.8 Billion



Competitive

- Agriculture & Food Research Initiative (AFRI)
- Non-AFRI

NIFA AFRI Program Requests for Applications (RFAs)

- **Foundational and Applied Science**
 - Foundational research, Extension, and integrated research, education and/or Extension projects
 - Interagency programs, Commodity Board co-funded projects, New Investigators
- **Education and Workforce Development**
 - Formal and nonformal education and integrated projects
 - Developing the next generation of research, education and Extension professionals in the food and agricultural sciences
- **Sustainable Agricultural Systems (\$10 million CAP grants)**
 - Research, education and Extension integrated projects
 - Climate-smart agriculture and forestry
 - Strengthening the bioeconomy
 - Nutrition security



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Competitive Funding Opportunities



Crop Protection and Pest Management

Applied Research and Development Program Area (ARDP)

- Funds applied IPM research and Extension projects that will ensure food security and respond effectively to major societal pest (insects, pathogens, weeds, nematodes) management challenges with comprehensive IPM approaches that are economically viable, ecologically prudent and safe for human health

Proposed Budget Requests: \$200,000 - \$325,000 per project (2-3 years)

Project Types: Standard: Research only, Research-led, Extension-led

Application Deadline: TBD for FY 2023

Contacts: Vijay Nandula - vijay.nandula@usda.gov
Emmanuel Byamukama - Emmanuel.Byamukama@usda.gov



Crop Protection and Pest Management

Extension Implementation Program Area (EIP)

- The EIP funds projects based on combinations of primary and secondary priorities intended to increase IPM implementation among the clientele served

Proposed Budget Requests: \$300,000/year (3 years)

Project Types: Standard

Application Deadline: Continuations in FY 2023

Contacts: Emmanuel Byamukama - Emmanuel.Byamukama@usda.gov
Vijay Nandula - vijay.nandula@usda.gov



Crop Protection and Pest Management

Regional Coordination Program Area (RCP)

- The RCP funds projects to increase coordination and improve efficiency of IPM research and extension efforts; facilitate collaboration across states, disciplines, and purposes; and promote further development and adoption of IPM

Proposed Budget Requests: \$4.15 M/year (4 years)

Project Types: Standard

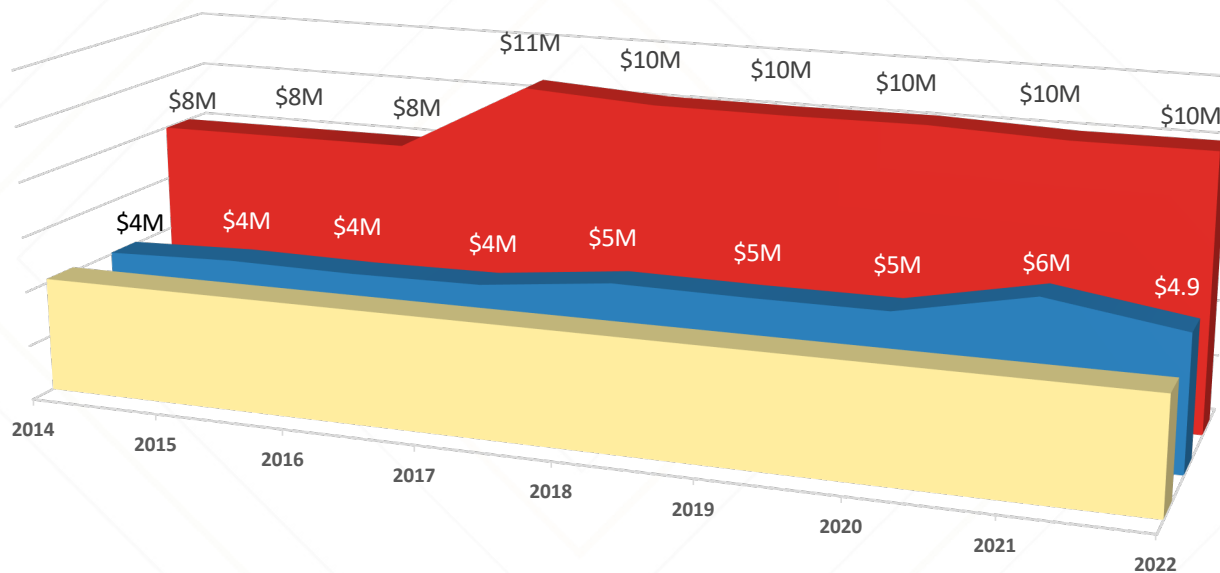
Application Deadline: Continuations in FY 2023

Contacts: Vijay Nandula - vijay.nandula@usda.gov
Emmanuel Byamukama - Emmanuel.Byamukama@usda.gov



CPPM

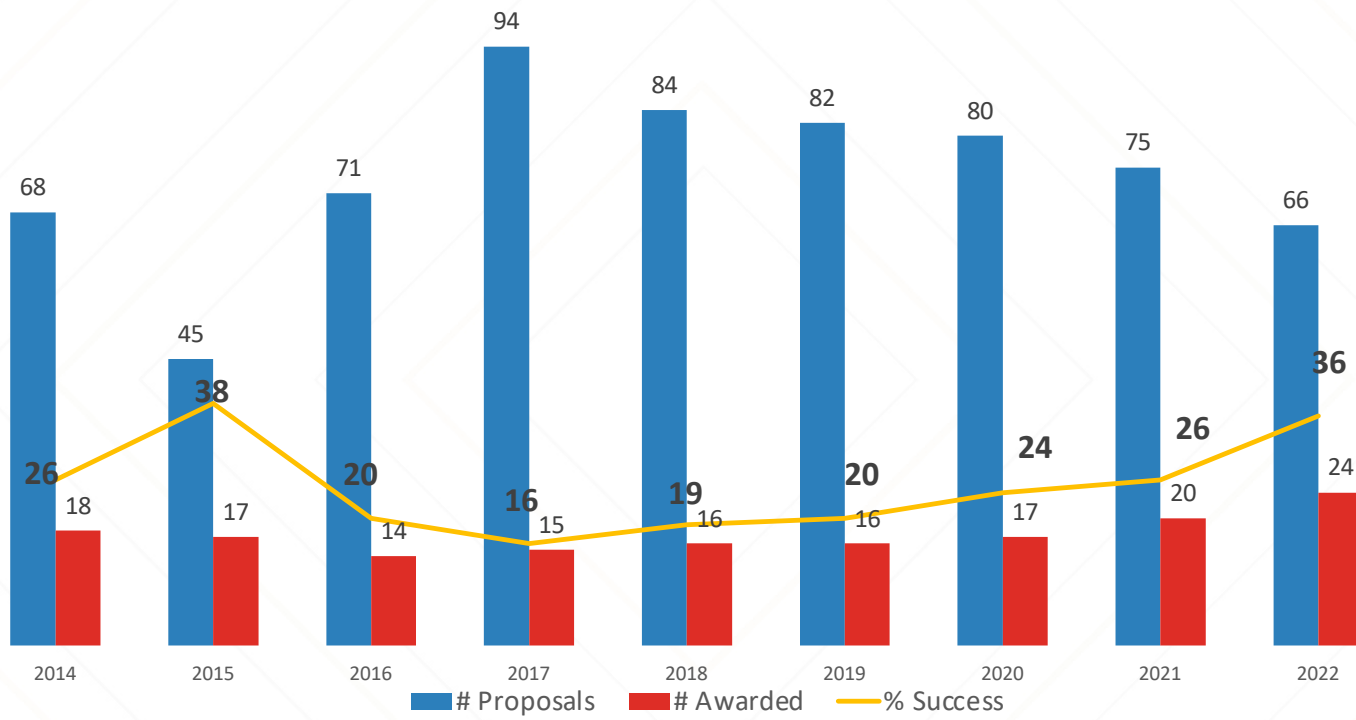
RCP ARDP EIP



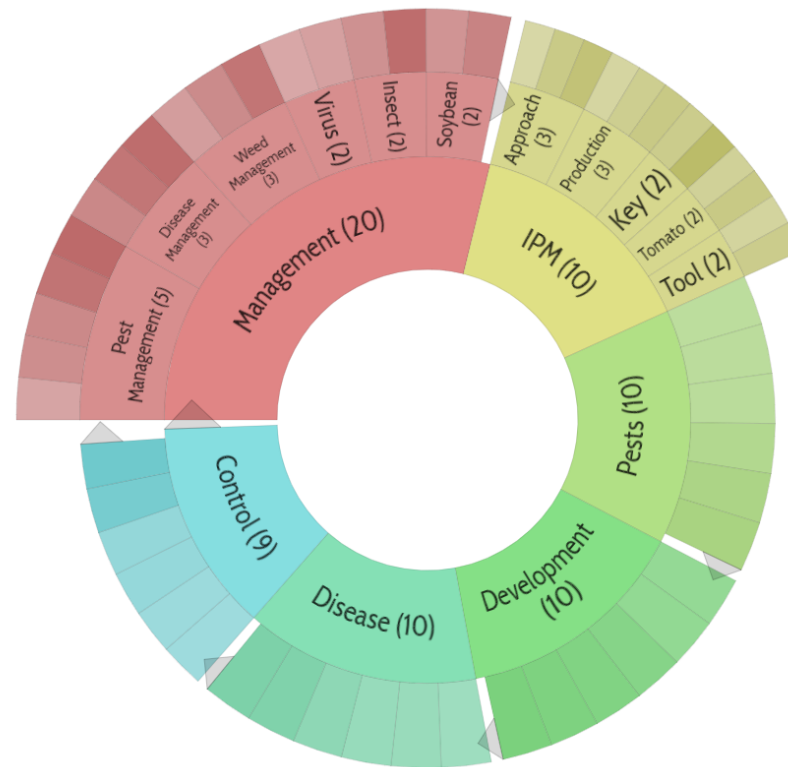
2014-22 CPPM Total Payment to States



CPPM-ARDP



ARDP Success Rate per Fiscal Year

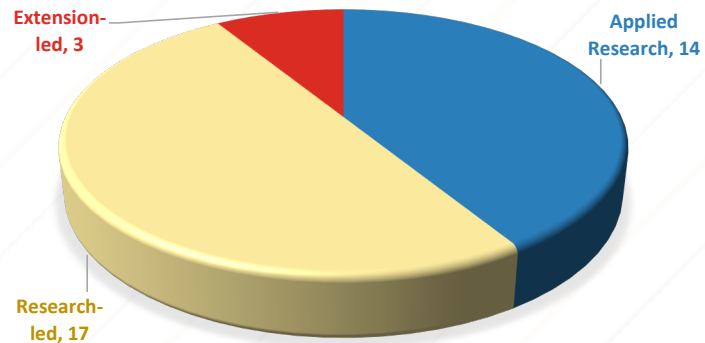


Recurring themes sampled by a work clustering software Lingo3G of FY2022 ARDP submitted topics.

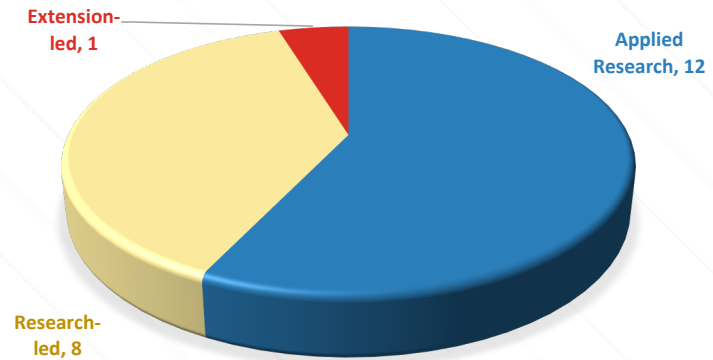
CPPPM-ARDP

CPPM-ARDP Region-wide Distribution
of ARDP- funded Projects from 2014-21

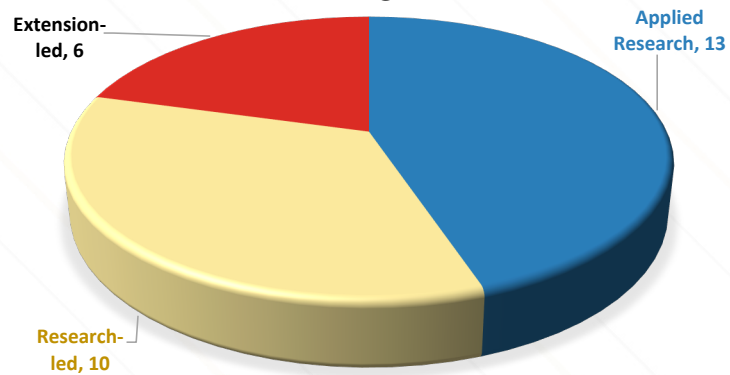
NORTHEAST



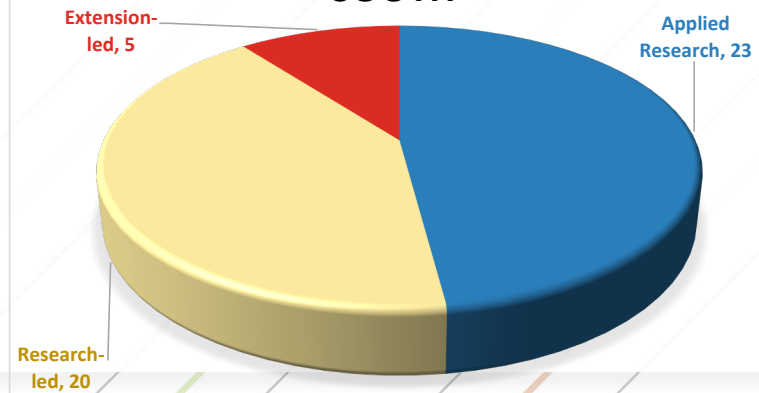
NORTH CENTRAL



WEST



SOUTH



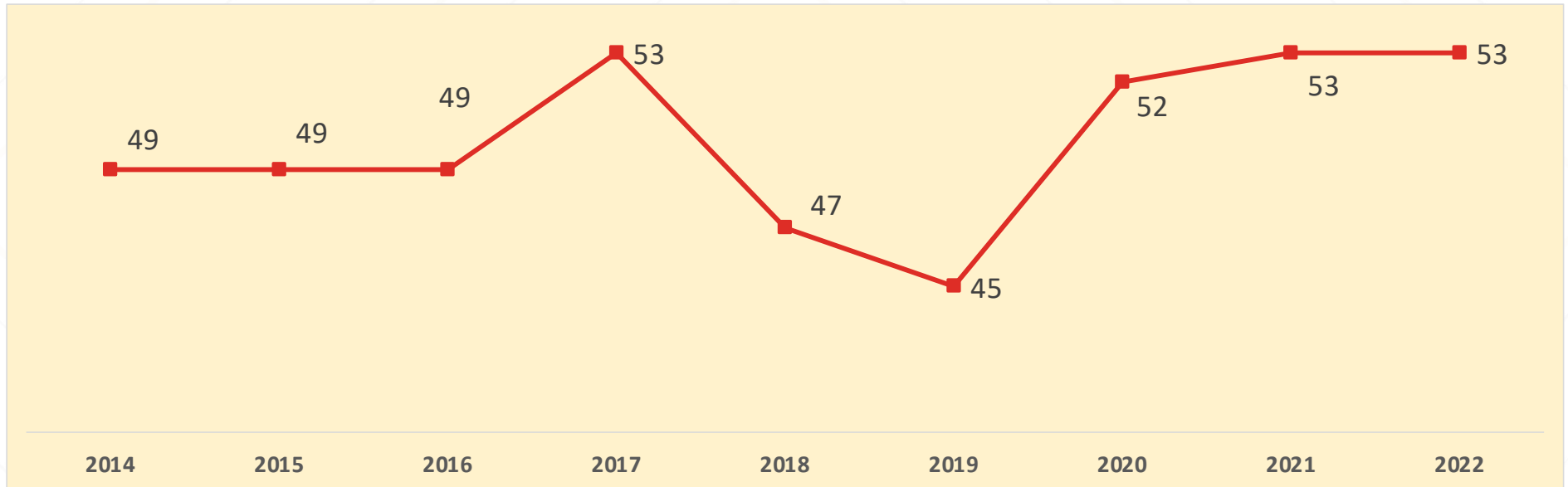


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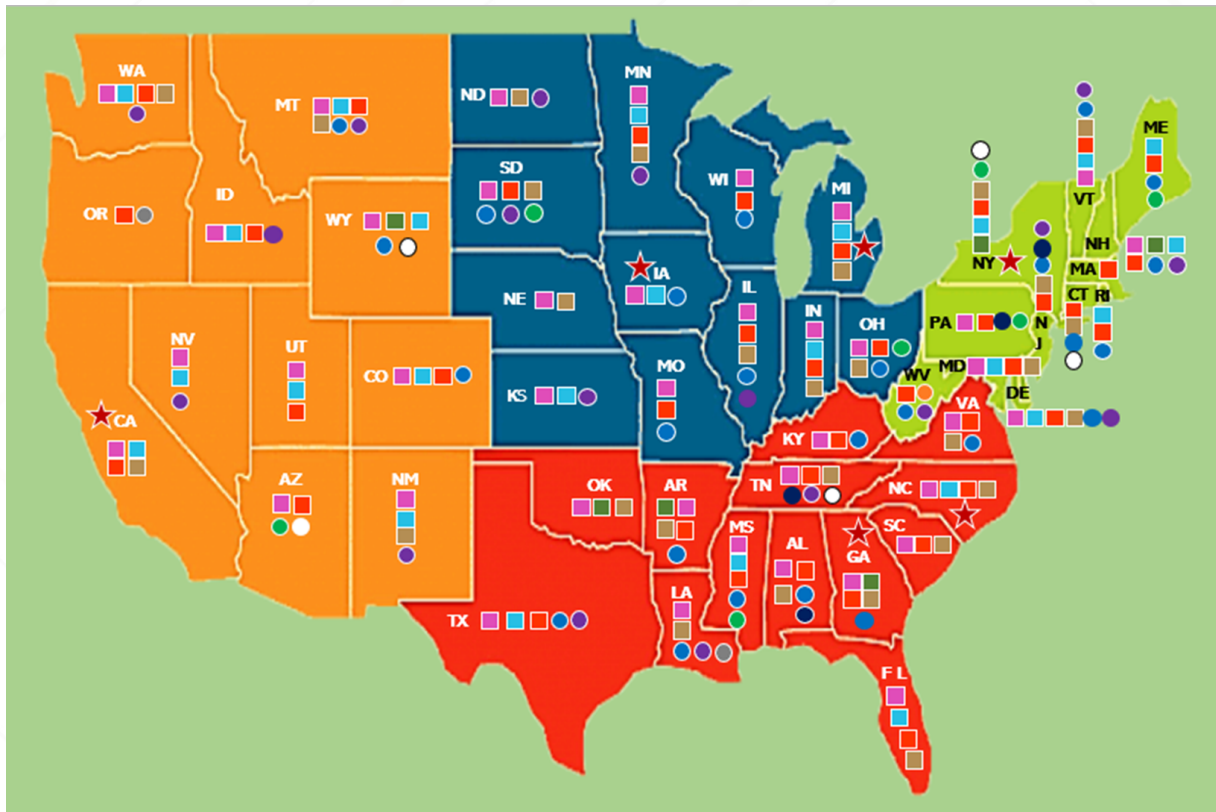
CPPM-EIP 2014-22

#Awards





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CPPM-EIP

FY2021 EIP Priorities Distribution

EIP Primary Priority Areas	No. of States Funded [FY21]	EIP Secondary Priority Areas	No. of States Funded [FY21]	EIP Secondary Priority Areas	No. of States Funded [FY21]
Agronomic Crops	40	Conservation Partnership	1	Public Health	7
Animal Agriculture	6	Pest Diagnostics Facilities	26	Recreational Lands	0
Community	27	Housing	4	Schools	5
Specialty Crops	41	Pesticide Applicators	19	Wide-Area Pest Monitoring and Reporting	2
Pollinator Health	29				



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CPPM-RCP



The North central Center supports the **Crop Protection Network**, which provides research-based IPM information to farmers and agricultural personnel. In 2020, CPM updated or published

13

publications, had more than

117,000

unique website page views and had approximately

75,000

publication downloads.



The Western Center Signature Programs helped develop weather-based pest models, growers nationwide use over

150,000

Times a year

to predict and prevent pest outbreaks, as well as an assessment tool that's documented significant pesticide reductions and hundreds of millions of dollars in savings from using IPM practices in cotton and other crops.



The Northeastern Center's 2018 funding of

\$9,995

For a spotted lanternfly working group resulted in a

\$7.3 million

USDA SCRI grant

In 2019 to manage this invasive agricultural pest –

1 1:730

ratio.



The Southern Center Offers pest reporting and specific tools for

350

Pests and diseases on

22

Commodities including

**corn,
soybean, &
cucurbits.**

Impact of Regional IPM Centers



AFRI Critical Agricultural Research and Extension (CARE – A1701)

Goal: Address **critical challenges and opportunities** to improve the nation's agricultural and food systems and address issues that need **immediate attention**.
Should lead to readily and rapidly adoptable practices

Proposed Budget Requests: Up to \$300,000 per project (1-3 years)

Project Types: Integrated Projects (Research and Extension) only

Application Deadline: was September 15, 2022 (5:00 pm ET)

Contacts: Vijay Nandula - vijay.nandula@usda.gov

James Dobrowolski - james.dobrowolski@usda.gov



Emergency Citrus Disease Research and Extension Program (ECDRE)

Funds projects aimed at developing effective tactics and strategies to manage Huanglongbing (HLB) and its disease complex to enable financially sustainable citrus production

Proposed Budget Requests: \$1,500,000-\$15,000,000 per project (2-5 years)

Project Types: Research and Extension

Pre-Application Deadline: February, 2023

Contacts: Erica Kistner-Thomas - erica.kistnerthomas@usda.gov

Emmanuel Byamukama - emmanuel.byamukama@usda.gov



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Methyl Bromide Transition (MBT) program

- The purpose of the MBT program is to support the discovery and implementation of practical pest management alternatives for commodities and uses affected by the methyl bromide phase-out.
- The MBT program seeks to solve pest problems in key agricultural production and post-harvest management systems, processing facilities, and transport systems for which methyl bromide has been withdrawn or withdrawal is imminent.

Proposed Budget Requests: \$500,000 (2-3 years)

Project Types: Integrated, Extension only

Application Deadline: was March 17, 2022

Contact: Amer Fayad - amer.fayad@usda.gov



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AFRI Agricultural Biosecurity (A1181)

This program area priority focuses on increasing U.S. national capacity to prevent, rapidly detect and respond to biological threats to U.S. agriculture and food supply. Supported activities will be aimed at increasing agricultural biosecurity at the regional and national levels, and across the public and private sectors.

- Detection and diagnostics of transboundary, emerging, or re-emerging pests and diseases associated with animal production systems and/or transboundary, emerging, re-emerging and invasive diseases, insects and weeds associated with plant production systems.
- Rapid response to, and recovery from, pests and diseases that pose large-scale biosecurity threats to plant and animal production, including existing and imminent threats to U.S. agricultural production and food supply systems.

Proposed Budget Requests: up to \$650,000 for single-function projects (3-5 years); \$800,000 with specific partnerships; up to \$1 million for integrated projects (3-5 years); up to \$300,000 for seed grants (up to 2 years)

Project Types: Research, Extension and Integrated Projects only

Application Deadline: October 20, 2022 (5:00 pm ET)

Contacts: Amer Fayad - amer.fayad@usda.gov and
Michelle Colby - michelle.colby@usda.gov



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Urban, Indoor, and Emerging Agriculture

<https://nifa.usda.gov/program/uie-ag>

The 2018 Farm Bill directs NIFA to:

- research, education and extension activities that facilitate development of urban, indoor, and other emerging agricultural production systems. The UIE emphasizes activities on several segments of the value chain, including production, harvesting, transportation aggregation, packaging, distribution, and marketing needs.

Award size range: \$1 million

Duration: three to four years

Types of awards: Integrated only - Standard, Conference;

Application Deadline: Pre-application were July 11, 2022



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Equipment Grants Program (EGP)

Not AFRI
Not Education

- Funds the acquisition of shared-use special purpose equipment/instruments for fundamental and applied research for use in the food and agricultural sciences programs including data science and data systems.
- EGP grants are not intended to replace requests for equipment in individual project applications through other NIFA capacity/competitive programs.

◀ **Funding Request:** \$25,001-\$500,000

Duration: 3 years

Proposals per Institution: Two maximum

Awards per Institution: One maximum

Application Submission Deadline: was June 15, 2022

Program Contacts: Carlos Ortiz - carlos.ortiz@usda.gov
or Mallory Koenings - mallory.koenings@usda.gov



Pictures of field and
laboratory equipment





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Crosscutting AFRI Programs

- 1) **A1402** [Agricultural Microbiomes in Plant Systems & Natural Resources](#)
Application deadline: Oct. 6, 2022 (amy.ganguli@usda.gov ; sandeep.kumar@usda.gov)
- 2) **A1112** [Pests and Beneficial Species in Agricultural Production Systems.](#)
Application deadline: Aug. 25, 2022 (christopher.philips@usda.gov;
erica.kistnerthomas@usda.gov)
- 3) **A1541** [Data Science for Food & Agricultural Systems](#)
Application deadline: Nov. 17, 2022 (ann.stapleton@usda.gov)
- 4) **A1721** [Extension, Education & USDA Climate Hubs Partnership](#)
Application deadline: Oct. 5, 2022 (multiple NPLs; ClimatePartnerships@usda.gov)

Small Business Innovative Research Programs

- SBIR 8.2** [Plant Production and Protection](#)
Application deadline Phase I: Oct. 6, 2022 (kari.perez@usda.gov;
christopher.philips@usda.gov)





Some Non-AFRI Competitive Programs

- 1) **SARE** Sustainable Agriculture Research and Education
Application deadline: Nov. 14, 2022 - vance.owens@usda.gov
- 2) **SCRI** Specialty Crop Research Initiative
Pre-application deadline: Jan. 12, 2023 - tbewick@usda.gov
- 3) **BRAG** Biotechnology Risk Assessment Research Grants
LOI: Dec. 1, 2022; Full application deadline: Jan. 19, 2023
john.erickson@usda.gov; kari.perez@usda.gov
- 4) **OREI** Organic Agriculture Research and Extension Initiative
Application deadline: Mar. 31, 2022 - mathieu.ngouajio@usda.gov
- 5) **ORG** Organic Transitions
Application deadline: Apr. 21, 2022 - mathieu.ngouajio@usda.gov
- 6) **ASAFS** Alfalfa Seed and Alfalfa Forage System Program
Application deadline: Jun. 2, 2022 - tbewick@usda.gov
- 7) **SAC** Supplemental and Alternative Crops
LOI deadline Jun. 7, 2022 - tbewick@usda.gov



Useful Links

- Programs list - nifa.usda.gov/grants/programs#competitive
- RFA list - nifa.usda.gov/grants/request-for-application-list-rfa
- RFA schedule - nifa.usda.gov/upcoming-request-applications-calendar
- Data including funded projects - nifa.usda.gov/data/data-gateway
- Subscribe and customize your account to receive alerts when RFAs are posted - www.grants.gov/web/grants/register.html
- Subscribe to NIFA Update to receive weekly news - www.nifa.usda.gov/nifa-update
- ★ • Volunteer to serve as a reviewer - <https://prs.nifa.usda.gov/prs/volunteerPrep.do>
- NPL contacts - nifa.usda.gov/about-nifa/who-we-are/organizational-structure/national-program-leaders



Non-Discrimination Statement

<https://www.usda.gov/non-discrimination-statement>

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- Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.
- To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at How to File a Program Discrimination Complaint and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax (202) 690-7442; or (3) email: program.intake@usda.gov.
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