

United States National Institute Department of of Food Agriculture and Agriculture

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# **NIFA Update - NIPMCC**

#### Dr. Parag R. Chitnis, Associate Director Dr. Vijay K. Nandula, National Program Leader

USDA-NIFA Kansas City, MO

October 19, 2021





# NIFA relocated from Washington, DC to Kansas City, MO (September 2019)

- ~75% of NIFA staff declined to move to KC
- <50 staff in KC on October 1, 2019</li>
- ~270 staff in KC on October 1, 2021
- ~20 staff in Washington, DC
- Goal: 350(?) total FTE Working remotely since March 2020
- Permanent location: 805 Pennsylvania Ave (November 1, 2020)

Courtesy: Dr. Hamernik





# Division Directors

Plant ProductionPlant Protection

# • National Program Leaders (Biological Sciences)

- •Agronomy
- •Horticulture
- •Plant Pathology
- •Entomology (2 or 3)
- •Ag Economist
- Program Specialists (Biological Sciences)
  - Plant Protection

Courtesy: Dr. Hamernik





# **NIFA Director: Dr. Carrie Castille**

- January 4, 2021
- 2019: mid-south coordinator for USDA's Farm Production and Conservation (FPAC) mission area serving Louisiana, Mississippi, Arkansas, Tennessee, and Missouri
- 2017: state director for Louisiana Rural Development
- Natural Resource Leader and Assistant Professor at Louisiana State University



## **NIFA Budget Update:**

- Congress appropriated \$1.95 Billion to NIFA programs for FY2021, including one-year COVID Response Funding
- Enhanced Programs
  - -\$10M increase in AFRI funding
  - -\$3M increase in SARE funding

#### New Programs

- -\$2M for 1890 Agribusiness Center of Excellence
- -\$4M for a Farm of the Future (RFA closed on October 15, 2021)

Courtesy: Dr. Hamernik



## **USDA FY2021 Priorities:**

- -Addressing the impacts of climate change
- -Containing the pandemic and promoting economic recovery
- -Ensuring food and nutrition security
- -Rebuilding the rural economy
- -Ensuring racial justice and equity





# Additional information:

Organizational Chart:

https://nifa.usda.gov/resource/nifa-organizational-chart

- Institutes/Divisions/National Program Leaders: <u>https://nifa.usda.gov/institutes</u>
- National Program Leaders/Non-AFRI: <u>https://nifa.usda.gov/national-program-leaders</u>
- AFRI New Investigator Webinars: <u>https://nifa.usda.gov/2021-afri-ni-webinar-series</u>
- Volunteer to Serve on a NIFA Peer-Review Panel: <u>https://nifa.usda.gov/panelist-information</u>

Courtesy: Dr. Hamernik





# **Crop Protection and Pest Management**

#### https://nifa.usda.gov/program/crop-protection-and-pest-management-program

- The CPPM program addresses high priority issues related to pests (including insects, nematodes, pathogens, and weeds) and their management using IPM approaches at the state, regional and national levels;
- The CPPM program provides support in three program areas:
  - Applied Research and Development Program Area (ARDP)
    - The ARDP funds projects for the development of new IPM tactics, technologies, practices, and strategies through research (single-function) projects. ARDP also funds IPM adoption through research-led projects and IPM implementation through extension-led projects.
  - 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. EIP applications do not need to represent the entire scope of IPM at an institution, but should represent a reasonable proportion of the institution's IPM programming. Activities in EIP should implement new IPM strategies and improve implementation of known IPM strategies.
  - 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 through regional pest management information networks, collaborative team building and broad-based stakeholder participation. The desired result of these efforts is broader implementation of research findings.





# **Crop Protection and Pest Management**

https://nifa.usda.gov/program/crop-protection-and-pest-management-program

RFA (ARDP and RCP) – Opens on 11/15/2021 and Closes on 2/14/2022

- Applied Research and Development Program Area (ARDP)
  - Competed annually; # of awards ~ 15; max of \$325,000/proposal
- Extension Implementation Program Area (EIP)
  - Competition every 3 yr; next FY 2024; # of awards 53 in FY 2021
- Regional Coordination Program Area (RCP)
  - Competed every 4 years; # of awards 4





# **Agriculture and Food Research Initiative**

#### https://nifa.usda.gov/program/agriculture-and-food-research-initiative-afri

- AFRI is the nation's leading competitive grants program for agricultural sciences. The National Institute
  of Food and Agriculture (NIFA) awards AFRI research, education, and extension grants to improve rural
  economies, increase food production, stimulate the bioeconomy, mitigate impacts of climate variability,
  address water availability issues, ensure food safety and security, enhance human nutrition, and train
  the next generation of the agricultural workforce.
- AFRI was established by Congress in the 2008 Farm Bill and re-authorized in the 2018 Farm Bill. The program was re-authorized to be funded at \$700 million a year. The Consolidated Appropriations Act, 2019 funds AFRI at \$415 million. The anticipated amount available for new grants for the 2022 deadlines in the Foundational and Applied Science RFA is approximately \$290 million. (RFA link-next)
- NIFA provides AFRI grants to support research, education and extension activities in six Farm Bill priority areas: •Plant Health and Production and Plant Products; •Animal Health and Production and Animal Products; •Food Safety, Nutrition, and Health; •Bioenergy, Natural Resources, and Environment; •Agriculture Systems and Technology; •and Agriculture Economics and Rural Communities.



# AFRI: Critical Agricultural Research & Extension (CARE)

- Program Area Priority Code: A1701
- **Proposed Budget Requests:** \$300,000 total per project for project periods of 1-3 years
- **Project Types:** Integrated (research and extension) Projects only
- Grant Types: Standard and FASE (Strengthening Standard and New Investigator) Grants only
- **Application Deadline:** September 15, 2022 (5:00 pm ET)

Contact: Vijay Nandula <u>Vijay.Nandula@usda.gov</u> Andres Cibils <u>Andres.Cibils@usda.gov</u> Cierrah Kassetas<u>Cierrah.Kassetas@usda.gov</u>

https://nifa.usda.gov/sites/default/files/rfa/FY-2021-2022-AFRI-Foundational-and-Applied-Science-RFA-<u>Final-07172020.pdf</u>



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#### Background

- Established in 2013
- Originally only production oriented
- Expanded to all Farm Bill priorities
- Initially undersubscribed, not well known, but interest has increased substantially
- Program budget increased from \$3M to \$7M in 2019, 2020 and reduced back to \$5M in 2021. \$7M in 2022.



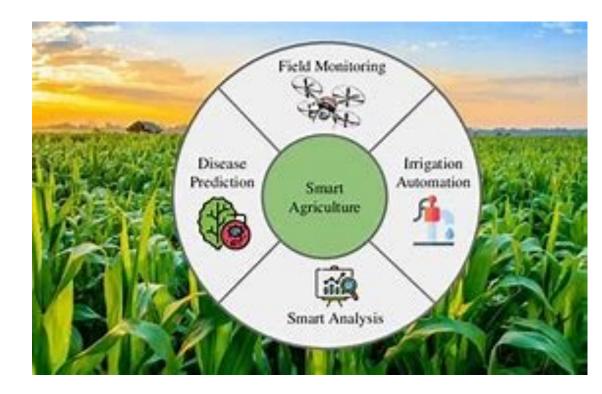


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#### Purpose of the CARE Program

- Address critical challenges and opportunities to improve the Nation's agricultural and food systems and address issues that need immediate attention
- Enhance partnerships and coordination among researchers, extension experts, and practitioners in food and agricultural enterprises
- Lead to practices that may be readily and rapidly adoptable by end-users.



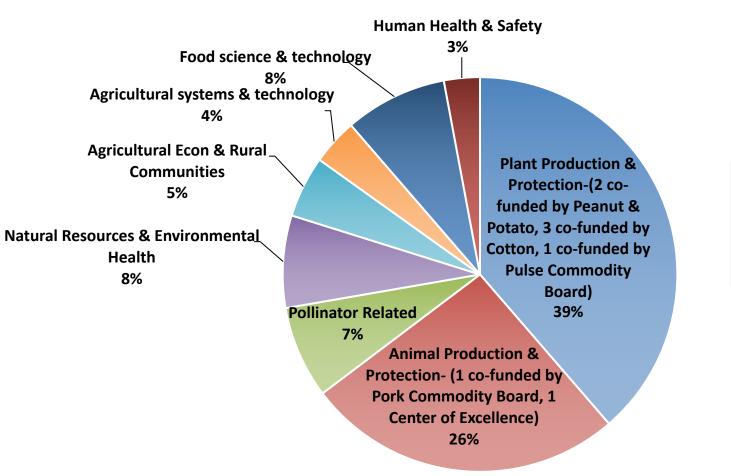






## What have CARE submissions looked like (2014-2020)?

391 Total Proposals Received- 130 Projects Funded



Total Funding = \$33,554,579.00





#### AFRI: Pests and Beneficial Species in Agricultural Production Systems (Plant Health and Production & Plant Products Program Area)

**Program Area Priority Code:** A1112

**Proposed Budget Requests:** Not to exceed \$750,000 per project (3-5 years)

**Project Types:** Research-only and Integrated Projects (Research and Extension) only

**Grant Types:** Standard, Conference, and FASE (Strengthening Standard, New Investigator, Strengthening Conference, Seed, Equipment, and Sabbatical) Grants Only

**Application Deadline:** 

August 25*,* 2022 (5:00pm ET)

**Contacts:** Erica Kistner-Thomas Logan Appenfeller erica.kistnerthomas@usda.gov logan.appenfeller@usda.gov

<u>https://nifa.usda.gov/sites/default/files/rfa/FY-2021-2022-AFRI-Foundational-and-Applied-Science-RFA-Final-07172020.pdf</u>





#### AFRI: Pests and Beneficial Species in Agricultural Production Systems (Plant Health and Production & Plant Products Program Area) Goals:

- Advance knowledge of invasive plant pests and associated beneficial species
- Development of innovative biologically-based strategies to manage pests

Subject Matter: Invertebrates, plant pathogens, slugs, nematodes, weeds, parasitoids

#### History:

- Pests and Beneficial Species programming began 2017
- Funded 92 projects with 81 currently active
- Total funding 2017-2020: \$35.8 million
- FY20: 114 applications, Funded 16 projects for 14% funding rate at \$6.8 million
- FY21: 116 applications plus 22 postdoc applications



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## **Methyl Bromide Transition**

https://nifa.usda.gov/funding-opportunity/methyl-bromide-transition

#### • The Methyl Bromide Transition Program (MBT) addresses:

 the immediate needs and the costs of transition that have resulted from the phase-out of the pesticide methyl bromide. The program focuses on integrated commercial-scale research on methyl bromide alternatives and associated extension activity that will foster the adoption of these solutions. Projects should cover a broad range of new methodologies, technologies, systems, and strategies for controlling economically important pests for which methyl bromide has been the only effective pest control option.

#### <u>https://nifa.usda.gov/upcoming-rfa-calendar</u>





## Minor Crop Pest Management Program Interregional Research Project #4 (IR-4)

https://nifa.usda.gov/funding-opportunity/minor-crop-pest-management-programinterregional-research-project-4-ir-4

- The purpose of the IR-4 program is to:
  - enable the crop protection industry to provide safe, effective, and economical crop protection products for growers and consumers of minor/specialty crops. The crop protection industry cannot justify the costs associated with the research and development, registration, production, and marketing of crop protection products for minor/specialty crops due to the smaller market base and limited sales potential.
- Continuation awards in FY2022





# **Small Business Innovation Research**

#### https://nifa.usda.gov/program/small-business-innovation-research-program-sbir

#### • The objectives of the SBIR Program are to:

- stimulate technological innovations in the private sector;
- strengthen the role of small businesses in meeting Federal research and development needs;
- increase private sector commercialization of innovations derived from USDA-supported research and development efforts; and
- foster and encourage participation by women-owned and socially and economically disadvantaged small business firms in technological innovations.
- SBIR Topics: •Forests and Related Resources •Plant Prod. and Prot. Biology

<ul> <li>Animal Prod. and Prot.</li> </ul>	<ul> <li>Conservation of Nat. Resources</li> </ul>
<ul> <li>Food Science and Nutrition</li> </ul>	<ul> <li>Rural Development</li> </ul>
<ul> <li>Aquaculture</li> </ul>	<ul> <li>Biofuels and Biobased Products</li> </ul>
<ul> <li>Small and Mid-Size Farms</li> </ul>	<ul> <li>Plant Prod. and Prot. – Engg.</li> </ul>

- RFA Phase I https://nifa.usda.gov/sites/default/files/rfa/FY22-SBIR-Phase1-RFA-508.pdf
- The closing date for the FY2022 Phase I grants is November 3, 2021.





#### Organic Agriculture Research and Extension Initiative <u>https://nifa.usda.gov/funding-opportunity/organic-agriculture-research-and-</u> <u>extension-initiative</u>

#### • The purpose of the OREI program is to:

- fund projects that will enhance the ability of producers and processors who have already adopted organic standards to grow and market high quality organic agricultural products. Priority concerns include biological, physical, and social sciences, including economics. Fieldwork must be done on certified organic land or on land in transition to organic certification, as appropriate to project goals and objectives.
- RFA for FY2022 closes on January 23, 2022 <a href="https://nifa.usda.gov/sites/default/files/rfa/FY21-OREI-Mod-RFA-508.pdf">https://nifa.usda.gov/sites/default/files/rfa/FY21-OREI-Mod-RFA-508.pdf</a>



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## **Organic Transitions**

https://nifa.usda.gov/funding-opportunity/organic-transitions-org

#### • The overall goal of the ORG is to:

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- support the development and implementation of research, extension and higher education programs to improve the competitiveness of organic livestock and crop producers, as well as those who are adopting organic practices.
- RFA for FY2022 closes on March 22, 2022

https://nifa.usda.gov/sites/default/files/rfa/FY21-Organic-Trans-RFA-508.pdf





# **Specialty Crop Research Initiative**

https://nifa.usda.gov/funding-opportunity/specialty-crop-research-initiative-scri

#### • The purpose of the SCRI program is to

- address the critical needs of the specialty crop industry by awarding grants to support research and extension that address key challenges of national, regional, and multi-state importance in sustaining all components of food and agriculture, including conventional and organic food production systems.
- SCRI has a pre-application phase and the RFA is emailed to invited applicants
- https://nifa.usda.gov/upcoming-rfa-calendar





# Alfalfa Seed and Alfalfa Forage System Program

https://nifa.usda.gov/funding-opportunity/alfalfa-and-forage-research-program

 The Alfalfa Seed and Alfalfa Forage System Program (ASAFS) will support the development of improved alfalfa forage and seed production systems.

RFA – <u>https://nifa.usda.gov/upcoming-rfa-calendar</u>





## Supplemental and Alternative Crops

https://nifa.usda.gov/funding-opportunity/supplemental-and-alternative-crops-sacc

- The Supplemental and Alternative Crops (SAC) Competitive Grants Program will:
  - support projects that lead to expanded adaptation and increased acres in the United States of canola grown for oil and industrial hemp grown for value added products. The SAC supports the breeding, testing, and development of superior performing canola and industrial hemp varieties and production practices that result in improved cost efficiencies, reduced grower risks, and wider use in production systems.
- Continuation awards in FY2022





# Sustainable Agriculture Research and Education

https://nifa.usda.gov/funding-opportunity/sare-regional-host-institution

- The purpose of the SARE program is to encourage research and outreach designed to increase knowledge concerning agricultural production systems that:
  - 1.maintain and enhance the quality and productivity of the soil;
  - 2.conserve soil, water, energy, natural resources, and fish and wildlife habitat;
  - 3.maintain and enhance the quality of surface and ground water;
  - 4.protect the health and safety of persons involved in the food and farm system; 5.promote the well-being of animals; and
  - 6.increase employment opportunities in agriculture (7 U.S.C. 5801 and 5811).
- RFA <u>https://nifa.usda.gov/upcoming-rfa-calendar</u>





# Biotechnology Risk Assessment Research Grants Program

https://nifa.usda.gov/funding-opportunity/biotechnology-risk-assessment-

research-grants-program-brag

- The purpose of the BRAG Program is to:
  - support the generation of new information that will assist Federal regulatory agencies in making science-based decisions about the effects of introducing into the environment genetically engineered organisms (GE), including plants, microorganisms — such as fungi, bacteria, and viruses — arthropods, fish, birds, mammals and other animals excluding humans.
- RFA <u>https://nifa.usda.gov/upcoming-rfa-calendar</u>





# Agricultural Genome to Phenome Initiative

https://nifa.usda.gov/program/genome-phenome-initiative

#### • The 2018 Farm Bill directs NIFA to:

- establish a new competitive grant program to support collaborative research concerning genomes and phenomes of both crops and animals of importance to the agriculture sector of the United States. The US Congress appropriated \$1 million in fiscal year 2020 for this effort.
- RFA <u>https://nifa.usda.gov/upcoming-rfa-calendar</u>





# Urban, Indoor, and Emerging Agriculture

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

## The 2018 Farm Bill directs NIFA to:

 establish a new competitive grant program to support research, education, and extension activities for facilitating the development of urban, indoor, and other emerging agricultural production, harvesting, transportation, aggregation, packaging, distribution, and markets. The Farm Bill provided \$10 million in mandatory funding for the first year and authorized up to \$10 million in discretionary funding annually for 2019 through 2023.

### RFA – <u>https://nifa.usda.gov/upcoming-rfa-calendar</u>





## Global Change, Ultraviolet Radiation Monitoring and Research Program

https://www.nifa.usda.gov/funding-opportunity/global-change-ultraviolet-radiationmonitoring-and-research-program

The USDA has long been concerned about high levels of ultraviolet radiation (UV-B) from the Sun, which are known to have harmful effects on agricultural crops, rangelands, forest ecosystems, livestock, humans, and built infrastructure. The purpose of the Global Change, Ultraviolet Radiation Monitoring and Research Program is to support research and research infrastructure which: generates an uninterrupted stream of climatology data; determines mechanisms and symptoms of plant and animal response; and applies tightly integrated models to assess regional and national impacts (both biological and economic) of multiple plant stressors.

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