



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

## USDA-NIFA Competitive Grant Programs supporting Research, Extension, & Education in WEED SCIENCE

Vijay K. Nandula, Ph.D.  
National Program Leader  
March 22, 2022 WSSA Webinar

INVESTING IN SCIENCE | SECURING OUR FUTURE | [WWW.NIFA.USDA.GOV](http://WWW.NIFA.USDA.GOV)

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# NIFA Competitive Grant Programs for Weed Science and Pest Management (including IPM)

- Applied Research and Development Program area of the Crop Protection and Pest Management (CPPM) program
- Critical Agricultural Research & Extension (CARE) (Crosscutting) program of AFRI
- Pests and Beneficial Species of the Agriculture and Food Research Initiative (AFRI)
- Tactical Sciences for Agricultural Biosecurity (Crosscutting) (AFRI)
- Methyl Bromide Transition
- Organic programs – ORG and OREI
- Specialty Crop Research Initiative



# Additional Plant Science Programs

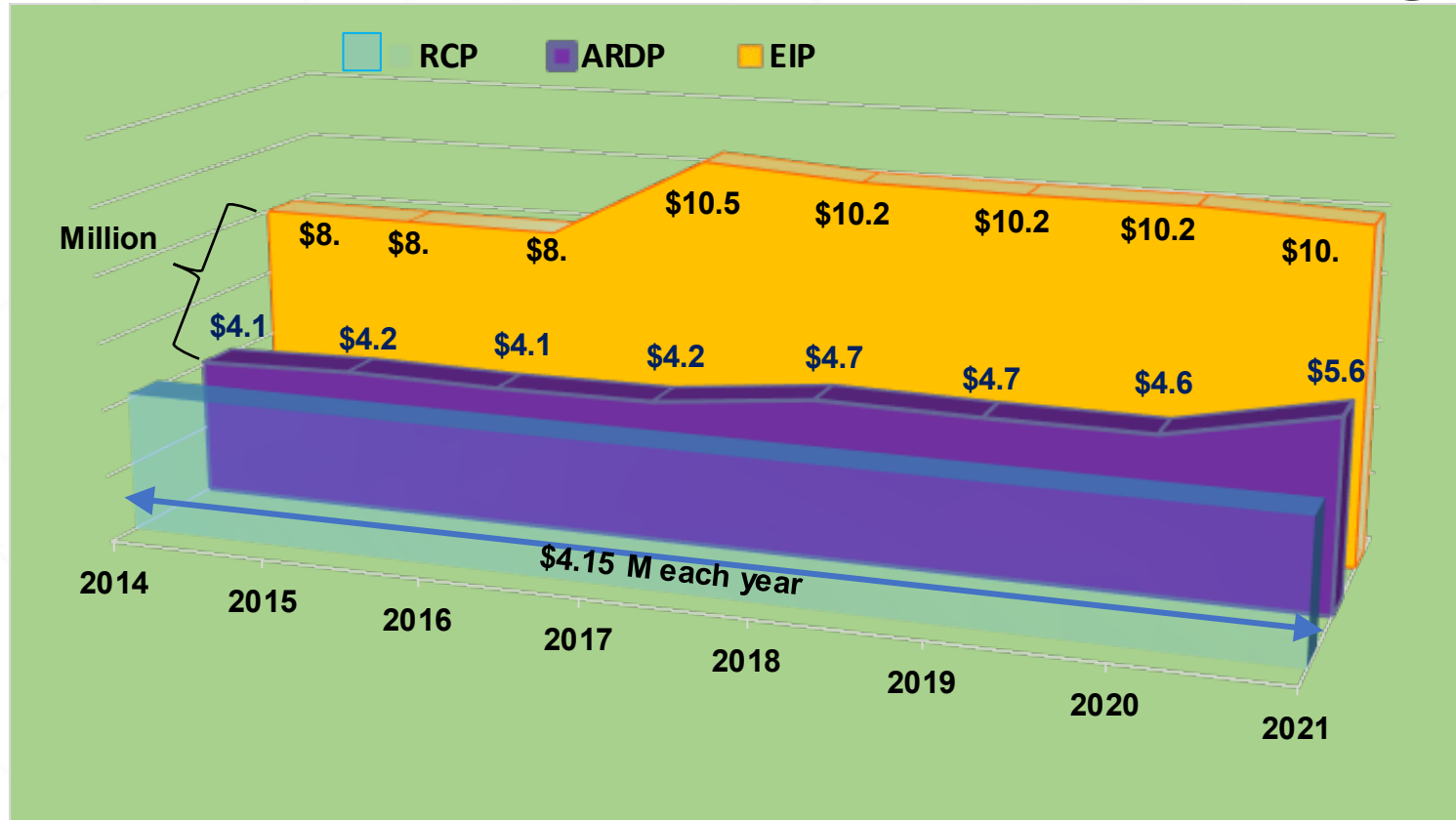
- **AFRI**
  - Agricultural Microbiomes in Plant Systems and Natural Resources
  - Pollinator Health: Research and Application
  - Sustainable Agricultural Systems
  - Plant Biotic Interactions (with NSF) - Interagency
- **Non-AFRI**
  - Agricultural Genome to Phenome Initiative (AG2PI)
  - Alfalfa Seed and Alfalfa Forage System Program (ASAFS)
  - Biotechnology Risk Assessment Research Grants Program (BRAG)
  - Global Change, Ultraviolet Radiation Monitoring and Research Program
  - Small Business Innovation Research (SBIR)
  - Supplemental and Alternative Crops (SAC)
  - Urban, Indoor, and Emerging Agriculture (UIE)
- **Other programs**
  - Minor Crop Pest Management Program Interregional Research Project #4 (IR-4) – *Single award from NIFA*
  - Sustainable Agriculture Research and Education (SARE) – *Regional host institution & Coordination funded by NIFA*
  - National Plant Diagnostic Network (NPDN) - *Regional hubs & National Data Repository funded by NIFA*



# Crop Protection and Pest Management

- The goals and objectives of CPPM are to address high priority issues related to pests including insects, nematodes, pathogens, **weeds**, and other pests and their management using integrated pest management (IPM) approaches at the state, regional and national levels.
- Three program areas: Applied Research and Development Program; Extension Implementation Program; Regional Coordination Program
- 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. **Annual RFA opens and closes in the 2<sup>nd</sup> quarter of the FY.**

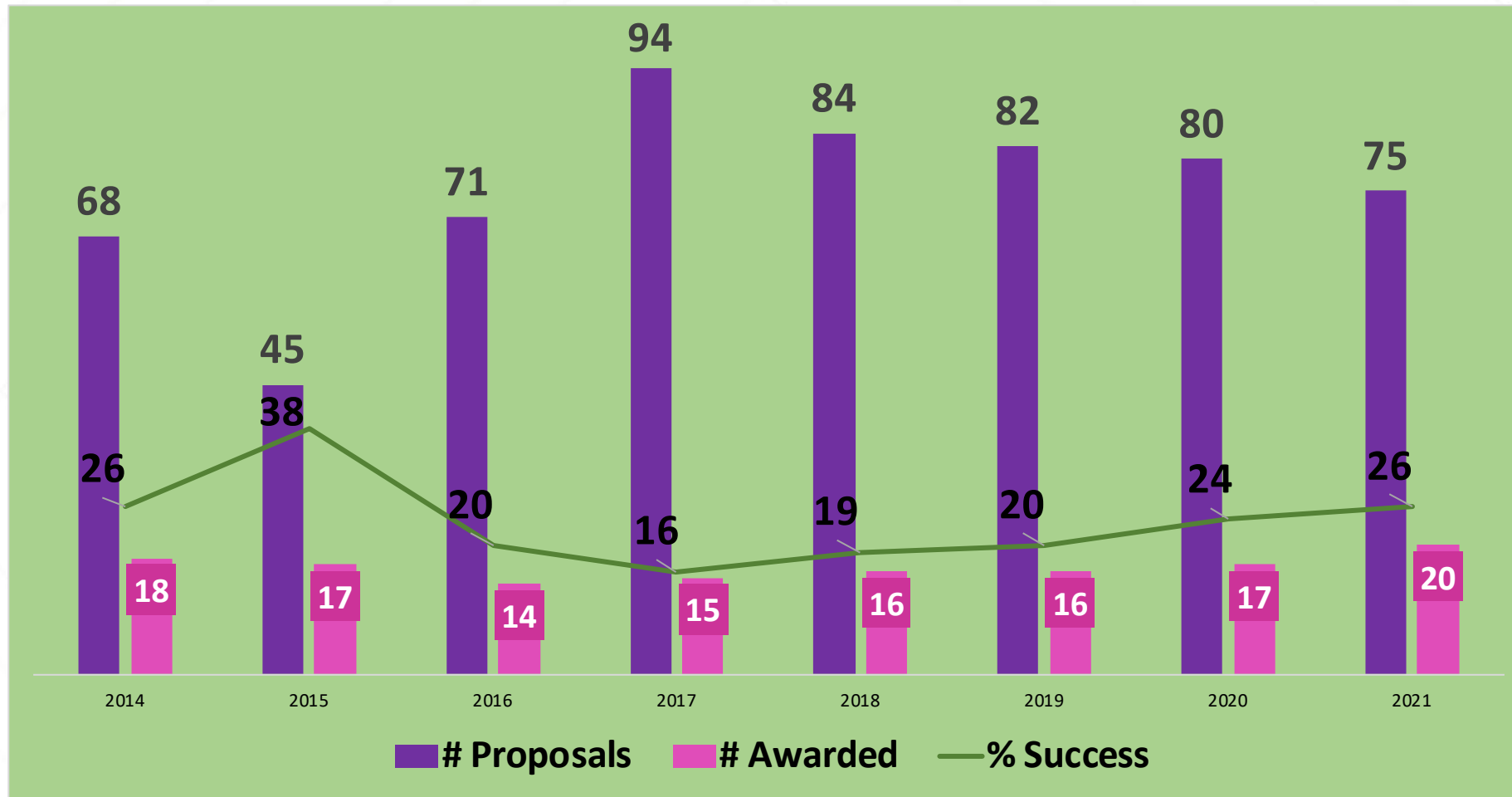
# Crop Protection and Pest Management



**2014-21 CPPM Total Program Areas Payment (approximate) to States**



# Crop Protection and Pest Management



**ARDP Success Rate per Fiscal Year**

# ARDP–Weed Science related Awards (2019-21)

<b>Year</b>	<b>Total</b>	<b>Awards</b>	<b>Awards-WS</b>
<b>2019</b>	<b>82</b>	<b>16</b>	<b>2</b>

Integrated And Cooperative Russian Thistle (Salsola Tragus) Management In The Semi-Arid Pacific Northwest  
 Developing Non-Chemical Harvest Weed Seed Control Strategies In Dryland Crops

<b>2020</b>	<b>80</b>	<b>17</b>	<b>5</b>
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Interacting agricultural pests. Joint management of Bromus tectorum and Fusarium crown rot in small grain systems  
 Using Spring-Seeded Grass Cover Crops to Reduce Herbicide Inputs in Plasticulture Production  
 Effect of Cultural Strategies and Application Technologies on Weed Control in Flooded and Furrow-Irrigated Rice  
 Building Geo-Spatial Databases to Improve the Precision of Cover Crops as an IWM Tool  
 Developing Non-Chemical Weed Control In Hazelnut - Comparing Saturated Steam And Electric Weed Control

<b>2021</b>	<b>75</b>	<b>20</b>	<b>7</b>
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Integrating Ecological Tactics to Manage Herbicide-Resistant Pigweeds in Major U.S. Soybean Production Regions  
 Allelopathic Covers Crops For Pest Suppression In Chile Pepper In The Southwest  
 Integrated Weed Management in Hemp: A Multistate Effort to Evaluate Practices and Develop Recommendations  
 Integrating high-residue cover crop and residual herbicide tactics to improve herbicide-resistance management in Mid-Atlantic field crops.  
 Using biosolarization, cover cropping, and strip tillage to improve pest suppression  
 Turning the combine from a weed seed spreader into a weed seed predator  
 Band steam application for weed and disease control in vegetable crops



# Agriculture and Food Research Initiative Foundational and Applied Science Program

- The Agriculture and Food Research Initiative (AFRI) is America's flagship competitive grants program that provides funding for fundamental and applied research, education, and extension projects in the food and agricultural sciences. In this RFA, NIFA requests applications for six AFRI priority areas through the Foundational and Applied Science Program for FY2022. The goal of this program is to invest in agricultural production research, education, and extension projects for more sustainable, productive and economically viable plant and animal production systems.
- **RFA - <https://nifa.usda.gov/sites/default/files/rfa/FY22-AFRI-FAS-RFA-508-Fv2.pdf>**





# Farm Bill Priorities

- 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
- Agriculture economics and rural communities





# Critical Agricultural Research & Extension (CARE)(Crosscutting)

**Goal:** address critical challenges and opportunities that research and extension, together, can address to improve the nation's agricultural and food systems

**Project Types:** Integrated (research and extension) Projects only

**Grant Types:** Standard and FASE (Strengthening Standard and New Investigator) Grants only

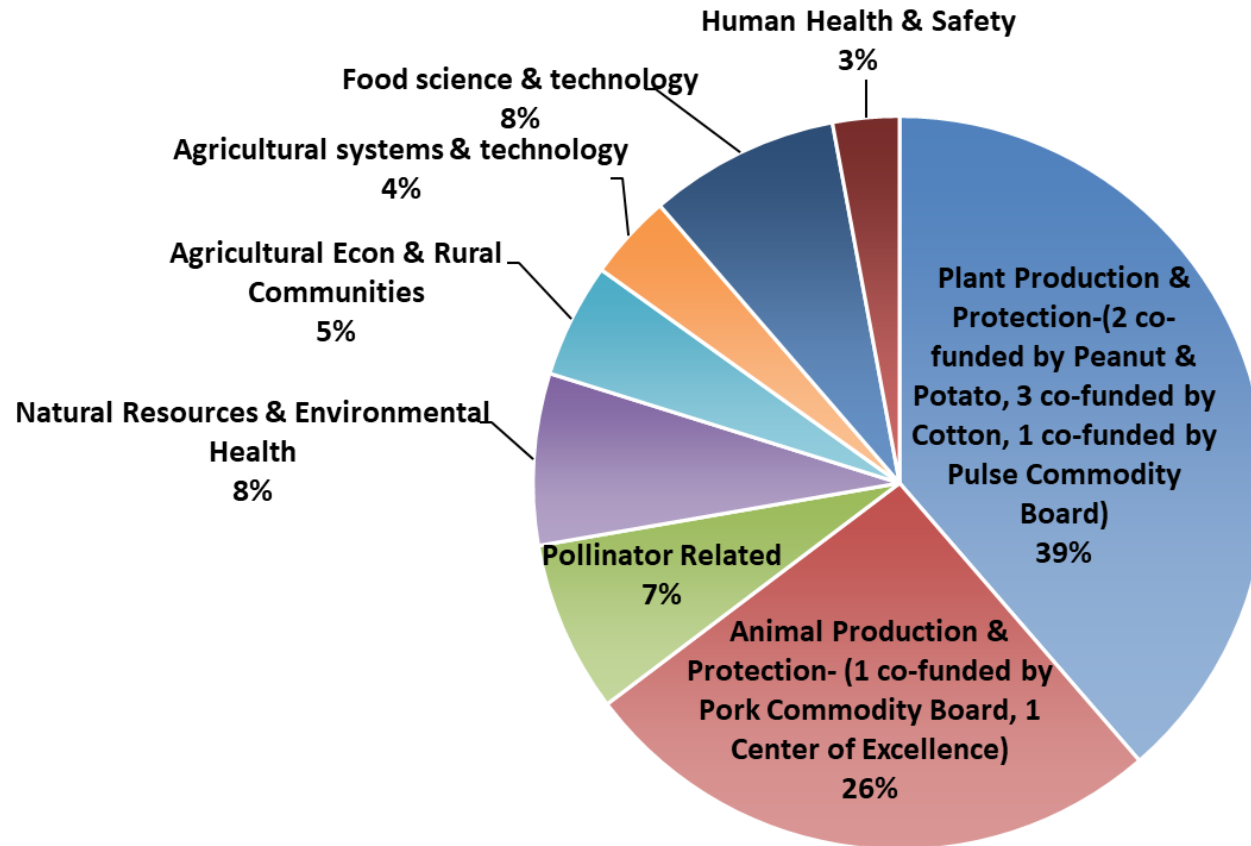
**Application Deadline:** September 15, 2022 (5:00 pm ET)

**Contact:** Vijay Nandula [vijay.nandula@usda.gov](mailto:vijay.nandula@usda.gov)



# Critical Agricultural Research & Extension

2014-2020: 391 Total Proposals Received- 130 Projects Funded



**Total Funding =  
\$33,554,579.00**



# AFRI: Tactical Sciences for Agricultural Biosecurity (Crosscutting)

**Goal:** Focuses on increasing national capacity to prevent, rapidly detect, and respond to biological threats to the U.S. agriculture and food supply.

**Project Types:** Research, Extension, and Integrated Projects only

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

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

**Contacts:** Amer Fayad [amer.fayad@usda.gov](mailto:amer.fayad@usda.gov)



# Methyl Bromide Transition

- The 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.
- RFA for FY2022 closes on **March 17, 2022.**
- Contact: Amer Fayad [amer.fayad@usda.gov](mailto:amer.fayad@usda.gov)



# THANK YOU!

## Questions??

Tel: 816-894-7229 (8 am - 4.30 pm CST)

Email: [vijay.nandula@usda.gov](mailto:vijay.nandula@usda.gov)

