Agriculture and Food Research Initiative (AFRI) - Foundational Program - Plant Health and Production and Plant Products: Plant-Associated Insects and Nematodes

Opp ID: 149544 | Research | Last edited on 26 Feb 2015

Full Details

Website: [http://www.nifa.usda.gov/funding/afri AFRI.html](http://www.nifa.usda.gov/funding/afri AFRI.html)

Sponsor: United States Department of Agriculture (USDA) National Institute of Food and Agriculture (NIFA)

Amount: Upper $500,000 use Total Program Funds: Approximately $10 million.

Standard Grants must not exceed $500,000 total (including indirect costs) for project periods of up to 5 years.

Applicant Type: Commercial Government New Faculty/New Investigator Nonprofit Ph.D./M.D./Other Professional Small Business

Citizenship or Residency: United States

Activity Location: United States

Abstract

This priority area supports projects to increase fundamental and applied knowledge of biological and environmental processes that affect the abundance and spread of pest-associated plant and beneficial insects or nematodes in agricultural systems (including managed forests and rangelands). Research on factors associated with the decline of insect pollinators, disruption of natural enemies, and development of solutions to mitigate these problems is particularly emphasized. While realizing the value of discovery-oriented research, this priority area will emphasize hypothesis-driven research. Projects that include an evaluation of pest or pollinator management are strongly encouraged to include an economic analysis.

Research focius areas must include one or more of the following:

1. Interactions of insects or nematodes with other insects or nematodes, plants or microbes. Both intraspecific and molecular level approaches are appropriate.
2. Mechanisms of plant response to insects or nematodes. Elucidation of signaling mechanisms between plants and insects or nematodes are encouraged.
3. Fundamental research that leads to biologically-based pest management approaches to managing insects and nematodes (systems level research may be considered)

Projects in this priority area may develop integrated pest management or other ecologically-based management programs (either in the short or long-term). Projects on pests of livestock or nuisance pests in urban systems are not supported by this program area priority.

Plant protection, plant production and the development of new plant products are critical to the sustainability and competitiveness of U.S. agriculture and the success and growth of the Nation's economy. Future improvements will require an increased understanding of complex, inter-related factors at a wide range of scales. These include investigations of plant biology at molecular, cellular and whole-plant levels as well as innovative and environmentally sound approaches to improve plants and protect them from biotic and abiotic stresses. Increased knowledge of plant systems and the various factors that affect plant productivity will allow U.S. agriculture to face critical challenges in areas such as food security, sustainability, bioenergy, climate change, multiple cropping, organic production, loss of agricultural land, and increasing global competition. There is no preference for any specific agriculturally-important organism or production system, but the justification should include a description of the importance of the organism or system and/or why the organism or system (e.g., alfalfa, forages, organic systems) requires additional study.

CFDA 10.310

Eligibility

Eligible applicants include: 1) State Agricultural Experiment Stations; 2) colleges and universities (including junior colleges offering associate degrees or higher); 3) university research foundations; 4) other...