

(a) Plant health and production and plant products. Plant systems, including:

- (1) Plant genome structure and function;
- (2) Molecular and cellular genetics and plant biotechnology;
- (3) Conventional breeding, including cultivar and breed development, selection theory, applied quantitative genetics, breeding for improved food quality, breeding for improved local adaptation to biotic stress and abiotic stress, and participatory breeding;
- (4) Plant-pest interactions and bio-control systems;
- (5) Crop plant response to environmental stresses;
- (6) Unproved nutrient qualities of plant products; and
- (7) New food and industrial uses of plant products.

(b) Animal health and production and animal products. Animal systems, including:

- (1) Aquaculture;
- (2) Cellular and molecular basis of animal reproduction, growth, disease, and health;
- (3) Animal biotechnology;
- (4) Conventional breeding, including breed development, selection theory, applied quantitative genetics, breeding for improved food quality, breeding for improved local adaptation to biotic stress and abiotic stress, and participatory breeding;
- (5) Identification of genes responsible for improved production traits and resistance to disease;
- (6) Improved nutritional performance of animals;
- (7) Improved nutrient qualities of animal products and uses; and
- (8) The development of new and improved animal husbandry and production systems that take into account production efficiency, animal well-being, and animal systems applicable to aquaculture.

(c) Food safety, nutrition, and health. Nutrition, food safety and quality, and health, including:

- (1) Microbial contaminants and pesticides residue relating to human health;
- (2) Links between diet and health;
- (3) Bioavailability of nutrients;

(4) Postharvest physiology and practices; and

(5) Improved processing technologies.  
(d) Renewable energy, natural resources, and environment. Natural resources and the environment, including:

- (1) Fundamental structures and functions of ecosystems;
- (2) Biological and physical bases of sustainable production systems;
- (3) Minimizing soil and water losses and sustaining surface water and ground water quality;
- (4) Global climate effects on agriculture;
- (5) Forestry; and
- (6) Biological diversity.

(e) Agriculture systems and technology. Engineering, products, and processes, including:

- (1) New uses and new products from traditional and nontraditional crops, animals, byproducts, and natural resources;
  - (2) Robotics, energy efficiency, computing, and expert systems;
  - (3) New hazard and risk assessment and mitigation measures; and
  - (4) Water quality and management.
- (f) Agriculture economics and rural communities. Markets, trade, and policy, including:
- (1) Strategies for entering into and being competitive in domestic and overseas markets;
  - (2) Farm efficiency and profitability, including the viability and competitiveness of small and medium-sized dairy, livestock, crop and other commodity operations;
  - (3) New decision tools for farm and market systems;
  - (4) Choices and applications of technology;
  - (5) Technology assessment; and
  - (6) New approaches to rural development, including rural entrepreneurship.

**§ 3430.310 Allocation of AFRI funds.**

(a) *General.* The Secretary shall decide the allocation of funds among research, education, extension, and integrated multifunctional projects in an appropriate manner and in accordance with the allocation restrictions found in this section.

### § 3430.311

(b) *Integrated programs.* Not less than 30 percent of funds allocated to AFRI each fiscal year shall be used to fund integrated programs.

(c) *FASE awards.*

(1) Each fiscal year, a percentage of AFRI funding (no less than 10 percent of the available funding) will be awarded as FASE awards. This percentage requirement may be adjusted by the Secretary based upon priorities and stakeholder input.

(2) The Secretary shall use not less than 25 percent of the funds made available for FASE grants to provide fellowships to outstanding pre- and postdoctoral students for research in the agricultural sciences.

(d) *Rapid Response Food and Agricultural Science for Emergency Issues Awards.* The Secretary may allocate some funding to address emergency issues in the food and agricultural sciences as determined by the Secretary. Letters of intent and applications may be requested, as appropriate. Although the solicitation and award processes may be expedited for these awards, NIFA will adhere to AFRI peer review and competitive requirements of this subpart.

### § 3430.311 Allocation of research funds.

(a) *Fundamental research.* Of the amount allocated by the Director for research, not less than 60 percent shall be used to make grants for fundamental research (as defined in subsection (f)(1) of section 251 of the Department of Agriculture Reorganization Act of 1994 (7 U.S.C. 6971)).

(1) *Research by multidisciplinary teams.* Of the amount allocated by the Director for fundamental research under this paragraph (a), not less than 30 percent shall be made available to make grants for research to be conducted by multidisciplinary teams.

(2) *Equipment grants.* Of the amount allocated by the Director for fundamental research under this paragraph (a) not more than 2 percent shall be used for equipment grants.

(b) *Applied research.* Of the amount allocated by the Director for research, not less than 40 percent shall be made available to make grants for applied research.

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### § 3430.312 Emphasis on sustainable agriculture.

NIFA shall ensure that grants made under this subpart are, where appropriate, consistent with the development of systems of sustainable agriculture as defined in section 1404 of NARETPA.

### Subpart H—Organic Agriculture Research and Extension Initiative

SOURCE: 75 FR 54761, Sept. 9, 2010, unless otherwise noted.

### § 3430.400 Applicability of regulations.

The regulations in this subpart apply to the program authorized under section 1672B of the Food, Agriculture, Conservation, and Trade Act of 1990 (FACT Act), as amended by the Food, Conservation, and Energy Act of 2008 (FCEA), Public Law 110–246 (7 U.S.C. 5925b).

### § 3430.401 Purpose.

(a) The purpose of this program is to make competitive grants, in consultation with the Advisory Board, to support research and extension activities regarding organically grown and processed agricultural commodities.

(b) Grants may be made for the following purposes:

(1) Facilitating the development of organic agriculture production, breeding, and processing methods;

(2) Evaluating the potential economic benefits to producers and processors who use organic methods;

(3) Exploring international trade opportunities for organically grown and processed agricultural commodities;

(4) Determining desirable traits for organic commodities;

(5) Identifying marketing and policy constraints on the expansion of organic agriculture;

(6) Conducting advanced on-farm research and development that emphasizes observation of, experimentation with, and innovation for working organic farms, including research relating to production and marketing and to socioeconomic conditions;

(7) Examining optimal conservation and environmental outcomes relating