



United States
Department of
Agriculture

National Institute
of Food and
Agriculture

NIFA

FY2012 PRESIDENT'S BUDGET PROPOSAL





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Agricultural science at the **National Institute of Food and Agriculture (NIFA)** integrates research, education, and extension to ensure that groundbreaking research discoveries go beyond the laboratory and make their way into the classroom and to people who can put the knowledge into practice and improve their lives.

Research enables development of the knowledge needed to solve many of the issues facing our nation. **Education** strengthens schools and universities to train the next generation of scientists, educators, producers, and citizens. **Extension** brings the knowledge gained through research and education to the people who need it most—in the United States and around the world.

NIFA works with the best and brightest scientists in the United States and around the world to find innovative solutions to local and global problems. Collaboration with historically black colleges and universities, Hispanic-serving institutions, and tribal colleges ensures the benefits of NIFA's resources extend to all Americans. With a timely, integrated approach and collaboration with other federal science agencies, NIFA also serves as a vital contributor in science policy decisionmaking.

NIFA supports the nation's food, fuel, and fiber production system and works across the federal science enterprise to provide innovative and needed solutions to these and other critical issues facing rural communities and American consumers.

IN FISCAL YEAR 2012, NIFA seeks to expand the role and influence of science in agriculture, the environment, human nutrition, and communities through focused, problem-solving research, education, and extension activities. NIFA will focus resources on supporting programs that provide foundational knowledge, as well as on larger programs that will create substantial impacts by addressing critical issues facing the long-term viability of agriculture.

The agency's primary budget initiatives will emphasize:

- targeted efforts that focus on solutions to high priority issues, including adapting agriculture to changing weather and climates; reducing childhood obesity; improving food safety and nutrition; and ensuring sustainable agriculture that provides for food security and meets goals for biofuels, while strengthening rural communities;

FY2012 BUDGET HIGHLIGHTS

AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)

Funding will support high priority issues:

BIOENERGY: Funding will support the development of regional systems for sustainable production of bioenergy and biobased products as a component of the department's priority goals of assisting rural communities to create wealth and thrive economically. Funding will support establishing additional regional centers for biomass production, as well as programs that facilitate and clarify land-use changes resulting from feedstock production and conversion. Other programs will seek to identify the socioeconomic impacts of biofuels in rural communities and address logistics of handling feedstocks for biofuels.

GLOBAL CLIMATE CHANGE: Funding will support activities on adaptive capacities and mitigation potentials of agricultural and natural resource systems to climate variables such as drought, limits on irrigation water supplies, floods, and temperature extremes. Efforts will help farmers, ranchers, land owners, and rural communities adapt to climate variation, reduce greenhouse gas emission, and increase carbon sequestration.

GLOBAL FOOD SECURITY:

Programs in this priority area will address pressing issues in food production that will contribute to national and global food security while helping America promote sustainable agriculture and agricultural exports. Funding will support projects in reproductive fertility in food animals; minimizing losses from livestock disease; management of plant insect pests; and management of plant bacterial diseases. Efforts will target activities that address the problems of U.S. agriculture, create mutual benefits domestically and abroad, and allow new opportunities for inter-departmental initiatives as appropriate.

NUTRITION AND HEALTH:

Projects, which focus on children ages 2-14, will identify the behavioral factors that influence obesity; develop valid behavioral and environmental instruments that measure progress in obesity prevention efforts; and fund nutrition research that leads to the development and evaluation of effective programs to prevent obesity.

FOOD SAFETY: Funds will be used to improve the safety of the U.S. food supply through new and improved rapid detection methods, pre- and post-harvest epidemiological studies, and

improved food harvesting and processing technologies. NIFA will fund critical environmental and ecological research to improve our understanding of disease-causing microorganisms, and of naturally occurring contaminants in meats, poultry, seafood, and fresh fruits and vegetables. Funding will address the control of food-borne pathogens.

FOUNDATIONAL PROGRAMS:

Funding will allow substantive research investments in each of AFRI's legislatively-established priority areas.

NIFA FELLOWSHIPS: Funding is proposed to expand support for graduate education through awards made to individuals pursuing research careers in NIFA research priority areas.

EDUCATION: NIFA proposes to redirect funding from the Graduate Fellowships Program and the Institution Challenge Grants Program into the AFRI program. A portion of the proposed AFRI funding will support activities similar to those previously funded through the two programs. This redirection will allow efficiency in management and alignment of medium- to long-term research goals with scientific training opportunities and directions.

- support for both fundamental science and applied research and education to the nation's best scientists and educators through Agriculture and Food Research Initiative competitive grants;
- linkages between producers, scientific discovery, and application of sustainable practices, through the Sustainable Agriculture Research and Extension Program;
- support for minority-serving institutions and program recipients; and
- efforts to address pest management challenges in plant and animal production systems.

SUSTAINABLE AGRICULTURE

Research and extension activities will support systems research and farmer/rancher projects that will improve soil quality and carbon sequestration, save energy, and mitigate climate change. Extension activities will emphasize training on crop and livestock management to improve soil quality and carbon sequestration, save energy, and mitigate climate change, as well as marketing innovations that enhance profitability, such as local and regional food systems. Integrated activities will focus on a federal-state matching grant program to assist in the creation or enhancement of state sustainable agriculture research, extension, and education programs.

MINORITY PROGRAMS

To expand activities for minority-serving programs, requested funds will support an increase in the number of federally-recognized tribes being served by extension programs, and pilot a food and nutrition program in a number of Native American communities through the competitively awarded Extension Services at the 1994 Institutions Program. In addition, funding will support multi-state alliances among the 1890 institutions under the Capacity Building Grants Program; alliances

among Hispanic-serving institutions (HSI) under the HSI Education Grants Program; and activities to reach American Indian students under the Tribal Colleges Education Equity Grants Program.

HISPANIC-SERVING AGRICULTURAL COLLEGES AND UNIVERSITIES (HSACU) ENDOWMENT FUND

The Hispanic/Latino community is the fastest growing sector of the American population. This investment in the HSACU is needed to ensure they can compete effectively for NIFA competitive grants. Support for this endowment fund for HSACU will assist in the development of a skilled and marketable Hispanic student population for employment in the food and agriculture sector.

PEST MANAGEMENT

NIFA proposes to consolidate funding for Expert Integrated Pest Management Decision Support System, Pest Management Alternatives, and Integrated Pest Management and Biological Control into a single program to improve the efficiency of program implementation resulting in research investments with greater focus, more appropriate scale, and enhanced impact.

STEM EDUCATION

Funded activities will support the President's agenda item to make math and science education a national priority at all grade levels and help improve the rural economy through targeted research and education programs. NIFA is requesting funding for the Secondary Education, Two-Year Post Secondary Education Program.

OTHER PROGRAMS

NIFA will continue funding for most other programs, including formula funded programs, in order to serve the nation's needs through exemplary research, education, and extension that address many challenges facing agriculture, the environment, and nutrition. From production, nutrition and food safety to energy independence and the sustainability of our natural resources, NIFA's investment in science secures America's future.

NATIONAL INSTITUTE OF FOOD AND AGRICULTURE (\$000)

PROGRAMS

FY 2011
ANNUALIZED
CR

FY 2012
PRESIDENT'S
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DISCRETIONARY FUNDING

RESEARCH AND EDUCATION ACTIVITIES:

Agriculture and Food Research Initiative	\$262,482	\$324,655
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FORMULA PROGRAMS:

Hatch Act	215,000	204,250
McIntire-Stennis Cooperative Forestry	29,000	27,550
Evans-Allen Program	48,500	48,500
Animal Health and Disease, Section 1433	2,950	0

SPECIAL RESEARCH GRANTS:

Expert IPM Decision Support System	156	0
Global Change, UV-B Monitoring	1,408	1,408
Integrated Pest Management & Biological Control	2,415	4,005
Minor Crop Pest Management, IR-4	12,180	12,180
Minor Use Animal Drug	429	429
Pest Management Alternatives	1,434	0
Other	87,192	0

OTHER RESEARCH:

Critical Agricultural Materials	1,083	0
Aquaculture Centers	3,928	3,928
Sustainable Agriculture Research and Education Program	14,500	15,000
Supplemental and Alternative Crops	835	0
1994 Research Grants	1,805	1,805
Joe Skeen Institute for Rangeland Restoration	983	983
New Era Rural Technology Program, Section 1473 E	875	875
Federal Administration (Direct Appropriation)	45,122	14,253
Farm Business Management and Benchmarking Program	1,500	0
Sun Grant Program	2,250	0

HIGHER EDUCATION:

Graduate Fellowships Grants	3,859	0
Institution Challenge Grants	5,654	0
1890 Institution Capacity Building Grants	18,250	20,075
Multicultural Scholars	1,241	1,241
Hispanic-Serving Institutions Education Grants Program	9,237	10,161
Tribal Colleges Education Equity Grants Program	3,342	3,676
Interest (Estimated) Earned on the Tribal Colleges Endowment Fund	4,307	4,773
Secondary Educ./2-Year Post Secondary, & Agriculture in the K-12 Classroom	983	3,483
Alaska Native-serving and Native Hawaiian-serving Institutions	3,200	3,200
Veterinary Medical Services Act	4,800	4,800
Resident Instruction Grants for Insular Areas	900	900
Distance Education Grants for Insular Areas	750	750

Total, Research and Education Activities

792,550 712,880

INTEGRATED ACTIVITIES:

SECTION 406 LEGISLATIVE AUTHORITY:

Water Quality	12,649	0
Food Safety	14,596	0
Regional Pest Management Centers	4,096	0
Crops at Risk from FQPA Implementation	1,365	0
FQPA at Risk Mitigation Program for Major Food Crop Systems	4,388	0
Methyl Bromide Transition Program	3,054	0
Organic Transition Program	5,000	5,000

NATIONAL INSTITUTE OF FOOD AND AGRICULTURE (\$000)

PROGRAMS

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(integrated activities, continued)

OTHER LEGISLATIVE AUTHORITIES:

International Science and Education Grants Program	\$3,000	\$3,000
Critical Issues	732	732
Regional Rural Development Centers	1,312	1,312
Sustainable Agriculture Federal-State Matching Grant Program	0	10,000
Food and Agriculture Defense Initiative	9,830	9,830
Total, Integrated Activities	60,022	29,874

EXTENSION ACTIVITIES:

FORMULA PROGRAMS:

Smith-Lever Formula 3(b)&(c)	297,500	282,625
1890 Institutions	42,677	42,677

SMITH-LEVER 3(d) PROGRAMS:

Expanded Food and Nutrition Education Program	68,070	68,070
Pest Management	9,938	9,938
Farm Safety	4,863	0
New Technologies for Agricultural Extension	1,750	1,750
Children, Youth, and Families at Risk	8,412	8,412
Youth Farm Safety Education and Certification	486	486
Sustainable Agriculture	4,705	4,968
Federally-Recognized Tribes Extension Program	3,045	8,000

OTHER EXTENSION PROGRAMS:

Extension Services at 1994 Institutions	4,321	5,321
Renewable Resources Extension Act	4,068	4,068
Rural Health and Safety	1,738	1,738
1890 Facilities (Section 1447)	19,770	19,770
Food Animal Residue Avoidance Database Program (FARAD)	1,000	0
Grants for Youth-Serving Institutions	1,784	0
Women and Minorities in Science, Technology, Engineering, and Mathematics (STEM) Fields	400	400
Federal Administration	20,396	8,565
Total, Extension Activities	494,923	466,788

TOTAL, DISCRETIONARY FUNDING a/

1,347,495 1,209,542

MANDATORY AND ENDOWMENT FUNDING

Hispanic-Serving Agricultural Colleges and Universities Endowment Fund	0	10,000
Tribal Colleges Endowment Fund	11,880	11,880
Organic Agriculture Research and Extension Initiative	20,000	20,000
Beginning Farmers and Ranchers Program	19,000	19,000
Biomass Research and Development	30,000	40,000
Healthy Urban Food Enterprise Development Center b/	1,000	0
Specialty Crop Research Initiative	50,000	50,000
Agriculture Risk Management Education Program c/	5,000	5,000
Biodiesel Fuel Education Program c/	1,000	1,000
Community Food Projects Competitive Grants Program c/	5,000	5,000

TOTAL, MANDATORY AND ENDOWMENT FUNDING

142,880 161,880

TOTAL, DISCRETIONARY AND MANDATORY FUNDING

1,490,375 1,371,422

NOTE: a/ Estimated interest on Tribal College Endowment Fund is included in the total.

Total does not include \$4.0 million for the Improved Nutritional Delivery of Food Assistance Grants.

b/ Mandatory funding for Healthy Urban Food Enterprise Development Center ends in FY 2011.

c/ Mandatory program delegated to another USDA agency but administered by NIFA.

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