

2011 Explanatory Notes  
 NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

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## NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

### Purpose Statement

Section 7511(f)(2) of the Food, Conservation, and Energy Act of 2008 amends the Department of Agriculture Reorganization Act of 1994 (7 U.S.C. 6971) by establishing an agency to be known as the National Institute of Food and Agriculture (NIFA). On October 1, 2009, any and all other authorities administered by the Administrator of the Cooperative State Research, Education, and Extension Service was transferred to the Director of the National Institute of Food and Agriculture (NIFA). NIFA will continue to advance knowledge for agriculture, the environment, human health and well-being, and communities.

### Research and Education Activities

Research and Education programs administered by NIFA are the U.S. Department of Agriculture's principal entree to the university system of the United States for the purpose of conducting agricultural research and education programs as authorized by the Hatch Act of 1887, as amended (7 U.S.C. 361a-361i); the McIntire-Stennis Cooperative Forestry Act of 1962, as amended (16 U.S.C. 582a et seq.) (McIntire-Stennis Act); the Competitive, Special, and Facilities Research Grant Act, as amended (7 U.S.C. 450i) (the 1965 Act); the National Agricultural Research, Extension, and Teaching Policy Act of 1977, as amended (7 U.S.C. 3101 et seq.) (NARETPA); the Equity in Educational Land-Grant Status Act of 1994 (7 U.S.C. 301 note) (the 1994 Act); the Agricultural Research, Extension, and Education Reform Act of 1998 (Pub. L. 105-185), as amended (AREERA); the Food, Agriculture, Conservation, and Trade Act of 1990 (Pub. L. 101-624) (FACT Act), the Farm Security and Rural Investment Act of 2002 (Pub. L. 107-171) (FSRIA), and the Food, Conservation, and Energy Act of 2008 (Pub. L. 110-246) (FCEA). Through these authorities, the U.S. Department of Agriculture (USDA) participates with State and other cooperators to encourage and assist the State institutions in the conduct of agricultural research and education through the State Agricultural Experiment Stations (SAES) of the 50 States and the territories; by approved Schools of Forestry; the 1890 Land-Grant Institutions and Tuskegee University and West Virginia State University; 1994 Land-Grant Institutions; by Colleges of Veterinary Medicine; and other eligible institutions. The appropriated funds provide Federal support for research and education programs at these institutions.

The State institutions conduct research on the problems continuously encountered in the development of a permanent and sustainable agriculture and forestry system, and in the improvement of the economic and social welfare of rural and urban families. Because of differences in climate, soil, market outlets, and other local conditions, each State has distinct problems in the production and marketing of crops and livestock. Farmers, foresters, and rural people in the individual States naturally look to their SAES, universities, and colleges for solutions to the State and local problems and request services to help meet changing conditions.

The Department's higher education mission is carried out in strong alliance with States, universities, and the private sector. NARETPA designated USDA as the lead Federal agency for higher education in the food and agricultural sciences. Through NIFA's Office of Higher Education Programs, USDA has implemented that charge with a broad array of initiatives to link teaching, research, and extension; to improve the training of food and agricultural scientists and professionals; and to strengthen the quality of education programs throughout the nation.

Appropriations and additional provisions for research and education activities are authorized under the following Acts:

1. Hatch Act - Payments to agricultural experiment stations under the Hatch Act of 1887 as amended (7 U.S.C. 361a-361i), the Agricultural Experiment Stations Act of August 11, 1955 (Pub. L. 84-352); the Education Amendments of 1972 (Pub. L. 92-318); District of Columbia Public Postsecondary Education Reorganization Act (Pub. L. 93-471); NARETPA (Pub. L. 95-113), as amended; Omnibus Territories Act of October 15, 1977 (Pub. L. 95-134); Act of March 12, 1980 (Pub. L. 96-205); Education Amendments of 1980 (Pub. L. 96-374); Act of December 24, 1980 (Pub. L. 96-597); Agriculture and Food Act of 1981

(Pub. L. 97-98); Act of December 8, 1983 (Pub. L. 98-213); Act of October 5, 1984 (Pub. L. 98-454); Food Security Act of 1985 (Pub. L. 99-198); Act of August 27, 1986 (Pub. L. 99-396); FACT Act; Federal Agriculture Improvement and Reform Act of 1996 (FAIR Act) (Pub. L. 104-127); AREERA; FSRIA; and FCEA.

Funds under the Hatch Act are allocated to the SAES of the 50 States, the District of Columbia, Puerto Rico, Guam, the Virgin Islands, Micronesia, American Samoa, and the Northern Mariana Islands for research to promote sound and prosperous agriculture and rural life.

Eligible State institutions are required to submit a Plan of Work to NIFA for approval before Hatch Act funds are distributed. The Hatch Act provides that the distribution of Federal payments to States for fiscal year 1955 shall become a fixed base, and that any sums appropriated in excess of the 1955 level shall be distributed in the following manner:

- 20 percent equally to each State;
- not less than 52 percent to the States as follows: one-half in an amount proportionate to the relative rural population of each State to the total rural population of all States, and one-half in an amount proportionate to the relative farm population of each State to the total farm population of all States;
- not less than 25 percent for multi-State, multi-disciplinary, multi-institutional research activities to solve problems concerning more than one State; and
- 3 percent for the administration of the Act.

Federal funds provided under the Hatch Act to State institutions must be matched with non-Federal funding on a dollar-for-dollar basis. Matching requirements for the insular areas of the Commonwealth of Puerto Rico, the Virgin Islands, Guam, Micronesia, American Samoa, the Northern Mariana Islands, and the District of Columbia are subject to the matching requirements of an amount equal to not less than 50 percent of the formula funds distributed to each insular area and the District of Columbia as stated in the Hatch Act, as amended by section 7404 of the FCEA. These provisions also state that the Secretary may waive the matching funds requirement of an insular area and the District of Columbia for any fiscal year if the Secretary determines that the government of the insular area or the District of Columbia will be unlikely to meet the matching requirement for the fiscal year.

Section 7(c) of the Hatch Act allows unexpended funds to be carried over for use during the following fiscal year. In accordance with provisions of AREERA, at least 25 percent of available Hatch Act funds must be used to support multi-State research; States also must expend 25 percent, or two times the level spent in fiscal year 1997 (whichever is less), on activities that integrate cooperative research and extension.

The three percent of funds appropriated under the Hatch Act for administration includes the disbursement of funds and a continuous review and evaluation of the research programs of the SAES supported wholly or in part from Hatch funds. NIFA encourages and assists in the establishment of cooperation within and between the States, and also actively participates in the planning and coordination of research programs between the States and the Department at the regional and national levels.

2. McIntire-Stennis Act - The McIntire-Stennis Cooperative Forestry Act of October 10, 1962, (16 U.S.C. 582a et seq.) as amended by Section 7412 of FCEA; and subject to provisions of Pub. L. 96-374; Pub. L. 97-98; Pub. L. 99-198; FACT Act; and FAIR Act.

The Act authorizes funding of research in State institutions certified by a State representative designated by the governor of each State. The Act provides that appropriated funds be apportioned among States as determined by the Secretary after consultation with the legislatively mandated Forestry Research Advisory Council. The Council consists of not fewer than sixteen members representing Federal and State agencies concerned with developing and utilizing the Nation's forest resources, the forest industries, the forestry schools of the State-certified eligible institutions, SAES, and volunteer public groups concerned with forests and related natural resources. Determination of apportionments follows consideration of pertinent factors including areas of non-Federal commercial forest land, volume of timber cut from growing stock,

and the non-Federal dollars expended on forestry research in the State. Section 7412 of FCEA amended the McIntire-Stennis Act to include 1890 Institutions (as defined in section 2 of AREERA (7 U.S.C. 7601)) as eligible for consideration in these determinations. The Act also provides that payments must be matched by funds made available and budgeted from non-Federal sources by the certified institutions for expenditure on forestry research.

3. Payments to 1890 Colleges, including Tuskegee University and West Virginia State University - Section 1445 of NARETPA; Act of October 28, 1978, (Pub. L. 95-547); and subject to provisions of Pub. L. 97-98; Pub. L. 99-198; FACT Act; FAIR Act; AREERA; FSRIA, and FCEA authorizing support of continuing agricultural research at colleges eligible to receive funds under the Act of August 30, 1890, including Tuskegee University. The general provisions section 753 of Pub. L. 107-76 makes West Virginia State University eligible to receive funds under this program. Eligible State institutions are required to submit a Plan of Work to NIFA for approval before these formula funds are distributed. The agricultural research programs at the 1890 Land-Grant Colleges and Universities are designed to generate new knowledge which will assist rural underprivileged people and small farmers to obtain a higher standard of living. Therefore, there is a high concentration of research effort in the areas of small farms, sustainable agriculture, rural economic development, human nutrition, rural health, and youth and elderly. Congress authorized appropriations in an amount not less than 15 percent of the amounts appropriated each year under Section 3 of the Hatch Act. The Act allows 3 percent for administrative expenses by the Secretary. Distribution of payments made available under section 2 of the 1965 Act for fiscal year 1978 are a fixed base and sums in excess of the 1978 level are to be distributed as follows:

- 20 percent equally to each State;
- 40 percent in an amount proportionate to the rural population of the State in which the eligible institution is located to the total rural population of all States in which eligible institutions are located; and
- 40 percent in an amount proportionate to the farm population of the State in which the eligible institution is located to the total farm population of all the States in which eligible institutions are located.

Section 1445(a)(2) of NARETPA (7 U.S.C. 3222(a)(2)), as amended by section 7122 of FCEA requires that funds appropriated for this program be not less than 30 percent of the Hatch Act appropriation. Section 1445(a) allows unexpended funds to be carried over for use during the following fiscal year. Section 1449 (7 U.S.C. 3222d), requires that Federal funds be matched by the State from non-Federal sources. For fiscal year 2007 and each fiscal year thereafter, not less than 100 percent of formula funds to be distributed must be matched. The Secretary of Agriculture may waive the matching funds requirement above the 50 percent level for any fiscal year for an eligible institution of a State if the Secretary determines the State will be unlikely to satisfy the matching requirement. Allotments to Tuskegee University and Alabama A&M University shall be determined as if each institution were in a separate State.

4. Special Research Grants - Section 2(c) of the 1965 Act (7 U.S.C. 450i(c)), as amended; and subject to provisions of NARETPA; Pub. L. 97-98; Critical Agricultural Materials Act, (Pub. L. 98-284); Pub. L. 99-198; FACT Act; FAIR Act; and AREERA authorizes Special Research Grants for periods not to exceed three years to SAES, all colleges and universities, other research institutions and organizations, Federal agencies, private organizations or corporations, and individuals. Previously, grants were made available for the purpose of conducting research to facilitate or expand promising breakthroughs in areas of the food and agricultural sciences. However, AREERA expanded the purposes under this authority to include extension or education activities. Grants funded in this account are only for research projects. Special Research Grants are awarded on a discretionary or competitive basis involving scientific peer and merit review processes.

Research grants are also awarded under the Critical Agricultural Materials Act, Pub. L. 98-284, as amended. Grants are awarded to aquaculture centers under section 1475(d) of NARETPA. Grants for supplemental and alternative crops are awarded under section 1473D of NARETPA. Grants for sustainable agriculture research and education are awarded under section 1621 of the FACT Act. Grants for Rangeland Research are awarded under section 1480 of NARETPA. Research grants for farm business management

and benchmarking are awarded under section 7208 of the FCEA. Grants for sun grant centers are awarded section 7526 of the FCEA.

5. Agriculture and Food Research Initiative - Subsection (b) of the 1965 Act (7 U.S.C. 450i(b)) as amended by section 7406 of FCEA establishes an Agriculture and Food Research Initiative (AFRI) to make competitive grants for fundamental and applied research, extension, and education to address food and agricultural sciences (as defined under section 1404 of NARETPA). The Secretary is authorized to award competitive grants to State agricultural experiment stations; colleges and universities; university research foundations; other research institutions and organizations; Federal agencies; national laboratories; private organizations or corporations; individuals; or any group consisting of two or more of the aforementioned entities. Grants will be awarded to address critical issues in United States agriculture in areas of global food security and hunger, climate change, sustainable bioenergy, childhood obesity, and food safety.

Addressing these critical issues will engage scientists and educators with expertise in:

- A) Plant health and production and plant products;
- B) Animal health and production and animal products;
- C) Food safety, nutrition, and health;
- D) Renewable energy, natural resources, and environment;
- E) Agriculture systems and technology; and
- F) Agriculture economics and rural communities.

Of the amount of funds made available for research, no less than 60 percent shall be used for fundamental research and no less than 40 percent shall be used for applied research. No less than 30 percent of the amount allocated for fundamental research shall be made available to make grants for research to be conducted by multidisciplinary teams and no more than 2 percent may be used for equipment grants. In addition, awards may be made to assist in the development of capabilities in the agricultural, food, and environmental sciences (e.g., new investigator and strengthening awards). Eligible applicants include State agricultural experiment stations, colleges and universities, university research foundations, other research institutions and organizations, Federal agencies, national laboratories, private organizations or corporations, individuals, and any group consisting of two or more entities identified in this sentence.

To the maximum extent practicable, NIFA, in coordination with the Under Secretary for Research, Education, and Economics (REE), will make awards for high priority research, education, and extension, taking into consideration, when available, the determinations made by the National Agricultural Research, Extension, Education, and Economics Advisory Board. Integrated research, education and extension activities under this program are authorized pursuant to the authority found in section 406 of AREERA (7 U.S.C. 7626) and at an amount no less than 30 percent of the funds made available under this authority.

6. Animal Health and Disease Research - Section 1433 of NARETPA (7 U.S.C. 3195), provides for support of livestock and poultry disease research in accredited schools or colleges of veterinary medicine or SAES that conduct animal health and disease research. These funds provide support for new research initiatives and enhance research capacity leading to improved animal health, reduced use of antibacterial drugs and improved safety of foods of animal origin. These funds shall be distributed as follows:

- 4 percent shall be retained by the Department of Agriculture for administration, program assistance to the eligible institutions, and program coordination;
- 48 percent shall be distributed in an amount proportionate to the value of and income to producers from domestic livestock and poultry in each State to the total value of and income to producers from domestic livestock and poultry in all the States; and
- 48 percent shall be distributed in an amount proportionate to the animal health research capacity of the eligible institutions in each State to the total animal health research capacity in all the States.

Eligible institutions must provide non-Federal matching funds in States receiving annual amounts in excess of \$100,000 under this authorization.

7. 1994 Institutions Research - The 1994 Act authorizes a competitive research grants program for institutions designated as 1994 Institutions. Section 7402 of FCEA amended the 1994 Act by adding a new

institution, increasing the number of recipients eligible to receive funding under this program to 34. The program allows scientists at the 1994 Institutions to participate in agricultural research activities that address tribal, national, and multi-State priorities.

8. New Era Rural Technology Program – Section 7137 of FCEA established this competitively awarded grants program for technology development, applied research, and training to aid in the development of an agriculture-based renewable energy workforce. Projects are to focus in areas of bioenergy, pulp and paper manufacturing, and agriculture-based renewable energy resources.

9. Federal Administration (direct appropriation) - Authority for direct appropriations is provided in the annual Agriculture, Rural Development, Food and Drug Administration and Related Agencies Appropriations Act. These funds are used to provide support services in connection with the planning and coordination of all research and education programs administered by NIFA, including the Research, Education, and Economics Data Information System and the Electronic Grants Administration System. Other grants also are included.

10. Higher Education - Section 1417 of NARETPA (7 U.S.C. 3152), was amended by section 7106 of FCEA to provide eligibility to the University of the District of Columbia to receive grants and fellowships for food and agricultural science education. This program is also subject to provisions found in NARETPA; Pub. L. 97-98; Pub. L. 99-198; Second Morrill Act of 1890; Act of June 17, 1988, (Pub. L. 100-339); FACT Act; Equity in Educational Land-Grant Status Act of 1994, (Pub. L. 103-382); FAIR Act; AREERA; Pub. L. 106-78, Aviation and Transportation Security Act of November 19, 2001, (Pub. L. 107-71), and National Veterinary Medical Service Act of December 6, 2003, (Pub. L. 108-161) (NVMSA).

Higher Education-Graduate Fellowships Grants pursuant to section 1417(b)(6) are awarded on a competitive basis to colleges and universities to conduct graduate training programs to stimulate the development of food and agricultural scientific expertise in targeted national need areas. The program is designed to attract highly promising individuals to research or teaching careers in areas of the food and agricultural sciences where shortages of expertise exist. Typically graduate students in the food and agricultural sciences require a minimum of four years to complete a doctoral degree. The USDA fellowships program provides support for doctoral study for three years, and the universities are expected to support the student's fourth year of dissertation research.

Institution Challenge Grants pursuant to section 1417(b)(1) are designed to strengthen institutional capacities, including curriculum, faculty, scientific instrumentation, instruction delivery systems, and student recruitment and retention, to respond to identified State, regional, national, or international educational needs in the food and agricultural sciences, or in rural economic, community, and business development. All Federal funds competitively awarded under this program must be matched by the universities on a dollar-for-dollar basis from non-Federal sources.

The Higher Education Multicultural Scholars Program pursuant to section 1417(b)(5) increases the ethnic and cultural diversity of the food and agricultural scientific and professional workforce, and advances the educational achievement of minority Americans. This competitive program is designed to help the food and agricultural scientific and professional workforce achieve full participation by members of traditionally underrepresented racial and ethnic groups. It is open to all colleges and universities granting baccalaureate or higher degrees in agriculture, forestry, natural resources, home economics, veterinary medicine, and closely allied fields. Federal funds provide 75 percent of the four-year scholarship awards; the remaining 25 percent is contributed by the grantee institutions.

The 1890 Institution Teaching, Research, and Extension Capacity Building Grants Program pursuant to 1417(b)(4) stimulates the development of high quality teaching, research, and extension programs at the 1890 Land-Grant Institutions and Tuskegee University and West Virginia State University to build their capabilities as full partners in the mission of the Department to provide more, and better trained, professionals for careers in the food and agricultural sciences. This competitive program is designed to strengthen institutional teaching, research, and extension capacities through cooperative programs with Federal and non-Federal entities, including curriculum, faculty, scientific instrumentation, instruction

delivery systems, student experimental learning, student recruitment and retention, studies and experimentation, centralized research support systems, and technology delivery systems, to respond to identified State, regional, national, or international educational needs in the food and agricultural sciences, or rural economic, community, and business development. Section 7107 of FCEA amended section 1417(b)(4) of NARETPA (7 U.S.C. 3152(b)(4)) to expand extension capacity.

The Secondary Education, Two-year Postsecondary Education, and Agriculture in the K-12 Classroom Program, authorized by section 1417(j) of NARETPA as amended (7 U.S.C. 3152 (j)), is designed to promote and strengthen secondary education in agribusiness and agriscience, and to increase the number and/or diversity of young Americans pursuing college degrees in the food and agricultural sciences. The intent of the program is to encourage teachers creatively to incorporate elements of agriscience and agribusiness into secondary education programs. Section 7109 of FCEA amended section 1417(j) of NARETPA to include support for current agriculture in the classroom programs for grades K-12. Proposals address targeted need areas of curricula design and instructional materials development; faculty development and preparation for teaching; career awareness; linkages between secondary, 2-year post-secondary, and institutions of higher learning; or education activities promoting diversity in students seeking degrees in agribusiness and agriscience. All Federal funds competitively awarded under this program must be matched by the institution on a dollar-for-dollar basis from non-Federal sources.

The USDA-Hispanic Serving Institutions Education Partnerships Grants Program pursuant to section 1455 of NARETPA (7 U.S.C. 3241) is the foundation for USDA efforts to better serve Hispanic Americans and to prepare them for careers in agriscience and agribusiness. This competitive program expands and strengthens academic programs in the food and agricultural sciences at Hispanic-serving colleges and universities, including two-year community colleges that have at least 25 percent Hispanic enrollment. Section 7128 of FCEA amended section 1455 to require that all grants made under this program be awarded on a fully competitive basis, and removed the requirement for consortia in subsection (b)(1).

The Tribal Colleges Education Equity Grants Program - The 1994 Act authorizes the use of funds to benefit those entities identified as the 1994 Land Grant Institutions. Funds may be used to support teaching programs in the food and agricultural sciences in the targeted need areas of: 1) curricula design and instructional materials development; 2) faculty development and preparation for teaching; 3) instruction delivery systems; 4) student experimental learning; 5) equipment and instrumentation for teaching; and 6) student recruitment and retention. Section 7402 of FCEA amended section 532 of the 1994 Act by adding Iilisagvik College, bringing the total number of eligible participants up to 34. Also FCEA amended section 534 to authorize that funds payable to a 1994 Institution be withheld and redistributed to other 1994 Institutions in the event that the Institution declines to accept funds or fails to meet the accreditation requirements of section 533.

The Native American Institutions Endowment Fund, authorized by the 1994 Act provides for the establishment of an endowment for the 1994 Institutions (34 Tribally-controlled colleges). The interest derived from the endowment is distributed to the 1994 Institutions on a formula basis. This program will enhance educational opportunities for Native Americans by building educational capacity at these institutions. The institutions are also able to use the funding for facility renovation and construction. On the termination of each fiscal year, the Secretary shall withdraw the income from the endowment fund for the fiscal year, and after making adjustments for the cost of administering the endowment fund, at 4 percent, distribute the adjusted income as follows. Sixty percent of the adjusted income is distributed among the 1994 Institutions on a pro rata basis, the proportionate share being based on the Indian student count. Forty percent of the adjusted income is distributed in equal shares to the 1994 Institutions.

The Alaska Native Serving and Native Hawaiian-Serving Institutions Education Grants Program, originally authorized by section 759 of Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2000, Pub. L. 106-78, and redesignated as section 1419B of NARETPA, is aimed at recruiting, supporting and educating minority scientists and professionals, and advancing the educational capacity of Native-serving institutions. Funds may be used to support projects in the targeted areas of: 1) enhancing educational equity for under-represented students; 2) strengthening educational capacities, including libraries, curriculum, faculty, scientific instrumentation, instruction delivery systems,

and student recruitment and retention; 3) attraction and retention of undergraduate and graduate students; and 4) cooperative initiatives to maximize the development of resources such as faculty, facilities and equipment to improve teaching programs. Additionally, section 7112 of FCEA permits consortia to designate fiscal agents for the members of the consortia and to allocate among the members funds made available under this program.

The Resident Instruction Grants for Insular Areas Program, authorized by section 1491 of NARETPA (7 U.S.C. 3363), as amended, is designed to enhance teaching programs in extension programs in food and agricultural sciences that are located in the insular areas of the Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, the Northern Mariana Islands, Micronesia, the Marshall Islands, or the Republic of Palau. Funds may be used that enhance programs in agriculture, natural resources, forestry, veterinary medicine, home economics, and disciplines closely allied to the food and agriculture production and delivery systems.

The Distance Education Grants for Insular Areas Program, authorized by section 1490 of NARETPA (7 U.S.C. 3362), as amended, is designed to strengthen the capacity of institutions that are located in the insular areas of the Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, the Northern Mariana Islands, Micronesia, the Marshall Islands, or the Republic of Palau. Funds may be used to enhance the capability of the institutions to carry out collaborative distance food and agricultural education programs using digital network technologies.

The Veterinary Medicine Loan Repayment Program, authorized by section 1415A of NARETPA (7 U.S.C. 3151a) as amended, provides for a loan repayment program for a specified payment amount of qualifying educational loans of veterinarians for geographical areas that have a shortage of veterinarians; and areas of veterinary practice that the Secretary determines have a shortage of veterinarians, such as food animal medicine, public health, epidemiology, and food safety. FCEA amended section 1415A to require NIFA to give priority to agreements with veterinarians for the practice of food animal medicine in veterinarian shortage situations and prohibits transfer of funds to the Food Safety and Inspection Service under the National Veterinary Medical Service Act.

#### Extension Activities

The mission of the Cooperative Extension System, a national educational network, is to help people improve their lives through an educational process that uses scientific knowledge focused on issues and needs. Cooperative Extension work was established by the Smith-Lever Act of May 8, 1914, as amended. This work is further emphasized in Title XIV of NARETPA to fulfill the requirements of the Smith-Lever Act, the Cooperative Extension Service in each State, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, the Northern Marianas and Micronesia, conduct educational programs to improve American agriculture, communities of all sizes, and strengthen families throughout the United States. This publicly funded, out-of-the classroom educational network combines the expertise and resources of Federal, State and local partners. The partners in this unique system are:

- NIFA of USDA;
- Cooperative Extension Services at land-grant universities throughout the United States and its territories; and
- Cooperative Extension Services in nearly all of the 3,150 counties in the United States.

Thousands of Extension employees and nearly 3 million volunteers support this partnership and magnify its impact. Strong linkages with both public and private external groups are also crucial to the Extension System's strength and vitality.

1. Smith-Lever 3 (b) & (c) formula funds of the Smith-Lever Act, 7 U.S.C. 343 (b)(3), as amended, comprise approximately two-thirds of the total Federal funding for extension activities. These funds are allocated to the States on the basis of the rural and farm population of each State and the territories. States

can utilize funds for locally determined programs, as well as for high priority regional and national concerns.

In accordance with section 4 of the Smith-Lever Act, eligible State institutions are required to submit a Plan of Work to NIFA for approval before Smith-Lever 3 (b) & (c) formula funds are distributed. Of the funds authorized under section 3(c), four percent shall be allotted for Federal administrative, technical, and other services, and for coordinating the extension work of the Department and the several States, Territories, and possessions. The remaining balance of funds formula distribution is:

- 20 percent is divided equally among the States;
- 40 percent is paid to the several States in the proportion that the rural population of each bears to the total rural population of the several States as determined by the census; and
- 40 percent shall be paid to the several States in the proportion that the farm population of each bears to the total farm population of the several States as determined by the census.

States must expend 25 percent, or two times the level spent in fiscal year 1997 (whichever is less), on cooperative extension activities in which two or more States cooperate to solve problems that concern more than one State. This also applies to activities that integrate cooperative research and extension.

Smith-Lever 3(b) and (c) funding provided to an 1862 Land-Grant Institution must be matched with non-Federal funding on a dollar-for-dollar basis. Matching requirements for the insular areas of the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, Micronesia, American Samoa, and the Northern Mariana Islands are subject to the matching requirements of an amount equal to not less than 50 percent of the formula funds distributed to each insular area. These provisions also state that the Secretary may waive the matching funds requirement of an insular area for any fiscal year if the Secretary determines the government of the insular area will be unlikely to meet the matching requirement for the fiscal year.

2. Smith-Lever 3(d) - These funds are allocated to the States to address special programs or concerns of regional and national importance. Section 7403 of FCEA amends section 3(d) of the Smith-Lever Act (7 U.S.C. 343(d)) to expand eligibility to the 1890 Land-Grant Institutions and required that funds be awarded on a competitive basis with the exception of the Expanded Food and Nutrition Education Program in which funds are distributed on a formula basis. Section 7417 of FCEA provided eligibility for these programs to the University of the District of Columbia. The following extension programs are supported under the Smith-Lever 3(d) funding mechanism and other specific authorizations:

Expanded Food and Nutrition Education Program – These funds are awarded to the 1862 and 1890 Land-Grant Institutions according to a statutory formula provided in section 1425 of NARETPA (7 U.S.C. 3175) which is amended by section 7116 of FCEA. Funds are used to provide low-income youth and families with information to increase nutrition knowledge and improve nutritional practices. Funds are awarded to the eligible institutions as follows: (1) FY 1981 bases; (2) \$100,000 to each institution; (3) a percentage of the increase in funding that exceeds the FY 2007 appropriated level (i.e., 11 percent for FY 2010, 12 percent for FY 2011, 13 percent for FY 2012, 14 percent for FY 2013, and 14 percent for FY 2014 and thereafter) distributed to the 1890 Land-Grant Institutions according to the prorata population for each institution at or below 125 percent of the poverty level; and the remainder to the 1862 Land-Grant Institutions according to the prorata population for each institution at or below 125 percent of the poverty level.

Pest Management – As identified above, all awards will be made competitively in FY 2009 and thereafter to support pest management activities to eligible institutions.

Farm Safety - The Rural Health and Safety Education Act of 1990, section 2390 of the FACT Act (7 U.S.C. 2661) - This program provides farm and ranch residents in all the States with information to assist in reducing and preventing agricultural related work incidents. Extension works with States and the National Easter Seal Society in conducting AgriAbility projects designed to assist farmers with disabilities to stay in farming. The competitively-awarded Youth Farm Safety Education and Certification Program provides funding to states to study training and certification needs of youth employed in agriculture.

Children, Youth, & Families At Risk - This program focuses on America's children, youth and families to help promote and provide positive, productive, secure environments and contributions to communities and the Nation. Projects are awarded competitively to focus on child care, science and reading literacy, and building program and community capacity.

New Technologies for Agricultural Extension - Competitively awarded projects that support an Internet-based tool that provides fast and convenient access to objective, peer-reviewed, and researched-based information, education, and guidance on subjects that include food safety, homeland security, natural resources and environment, youth development, families, nutrition and health, and other agricultural related topics.

Federally-recognized Tribes Extension Program (formerly Extension Indian Reservations) - Section 1677 of the FACT Act, 7 U.S.C. 5930 – Competitively awarded projects at various Indian Reservations and State Extension Services focus on providing assistance and educational programs in agriculture, community development, families and societal issues facing Native Americans.

Sustainable Agriculture - Section 1629 of the FACT Act, 7 U.S.C. 5832 - Smith-Lever 3(d) funding for sustainable agriculture programs is used to address the activities described in section 1629 of the FACT Act. The purpose of the program is to provide education and training for Cooperative Extension System agents, and other professionals in the university system or other government agencies, involved in the education and transfer of technical information concerning sustainable agriculture. Funds are used for statewide planning of sustainable agriculture programs and competitively awarded projects on a regional basis.

3. Payments to 1890 Colleges and Tuskegee University and West Virginia State University - Section 1444 of NARETPA, (7 U.S.C. 321-329), provides support to the 1890 Land-Grant Colleges and Universities for fostering, developing, implementing and improving extension educational programs to benefit their clientele. The general provisions, section 753, of Pub. L. 107-76 designated West Virginia State University as eligible to receive funds under any Act of Congress authorizing funding to 1890 Institutions, including Tuskegee University. Eligible State institutions are required to submit a five-year Plan of Work to NIFA for approval before these formula funds are distributed. Section 7121 of FCEA amended section 1444(a)(2) (7 U.S.C. 3221(a)(2)) to require that at least 20 percent of the total appropriations for each fiscal year under the Smith-Lever Act be allocated for payments to 1890 Institutions for extension activities. Funds will be distributed as follows:

- 4 percent to NIFA for administrative, technical, and other services;
- Payments to States in fiscal year 1978 are a fixed base. Of funds in excess of this amount:
  - 20 percent is distributed equally to each State;
  - 40 percent is distributed in an amount proportionate to the rural population of the State in which the eligible institution is located to the total rural population of all States in which eligible institutions are located; and
  - 40 percent is distributed in an amount proportionate to the farm population of the State in which the eligible institution is located to the total farm population of all States in which eligible institutions are located.

In accordance with section 1449(c) of NARETPA (7 U.S.C. 3222d), Federal funds provided under section 1444 must be matched by the State from non-Federal sources. Section 1449(c) provides that the Secretary of Agriculture may waive the matching funds requirement above the 50 percent level for any fiscal year for an eligible institution of a State if the Secretary determines that the State will be unlikely to satisfy the matching requirement.

Allotments to Tuskegee University and Alabama A&M University shall be determined as if each institution were in a separate State. Four percent of the funds appropriated under this program is set-aside for Federal Administration.

4. The Renewable Resources Extension Act - Renewable Resources Extension Act of 1978, 16 U.S.C. 1671-1676, provides funding for expanded natural resources education programs. Funds are distributed primarily by formula to 1862 and 1890 Land-Grant Institutions for educational programs, and a limited number of special emphasis national programs.
  5. Rural Health and Safety - Rural Health and Safety Education Act of 1990, section 2390 of the FACT Act, 7 U.S.C. 2661 note - This program helps rural residents avoid the numerous obstacles to maintaining their health status. This program maintains the ongoing rural health projects in Mississippi and Louisiana that focus on training health care professionals in rural areas.
  6. 1890 Facilities (Sec. 1447) – Section 1447 of NARETPA, 7 U.S.C. 3222b, funds are used to upgrade research, extension, and teaching facilities at the 1890 land-grant colleges, including Tuskegee University and West Virginia State University.
  7. Extension Services at the 1994 Institutions - The 1994 Act authorizes appropriations for Native American communities and Tribal Colleges for extension activities as set forth in the Smith Lever Act. Funding is awarded on a competitive basis. Section 532 was amended to add Ilisagvik College, bringing the total number of eligible participants up to 34.
  8. Grants to Youth Serving Institutions – Section 410 of AREERA (7 U.S.C. 7630) provides grants to the Girl Scouts of the United States of America, Boy Scouts of America, National 4-H Council, and the National Future Farmers of America Organization to establish projects to expand the programs carried out by the organizations in rural areas and small towns. Section 7309 of FCEA amended section 410 by providing maximum flexibility in content delivery to each organization to ensure that the unique goals of each organization, as well as the local community needs, are fully met. Additionally, recipients of funds under section 410 may redistribute all or part of the funds received to individual councils or local chapters within the councils without further need of approval from the Secretary.
  9. Women and Minorities in Science, Technology, Engineering and Mathematics Fields – Section 7204 of FCEA amended section 1672 of the FACT Act which provides grants to increase participation by women and underrepresented minorities from rural areas in the field of science, technology, engineering, and mathematics. Additionally, priority will be given to eligible institutions that carry out continuing programs funded by the Secretary.
  10. Beginning Farmer and Rancher Development Program - Section 7410 of FCEA amended section 7405 of FSRIA and made available \$19,000,000 for FY 2010 through FY 2012. The purpose of this mandatory, competitive program is to support the nation's beginning farmers and ranchers by making competitive grants to new and established local and regional training, education, outreach, and technical assistance initiatives that address the needs of beginning farmers and ranchers. To be eligible for a grant under this authority, an applicant must be a collaborative State, tribal, local, or regionally-based network or partnership of public or private entities which may include a State cooperative extension service; a Federal, state, or tribal agency; a community-based and non-governmental organization; a college or university (including an institution offering associate's degree) or a foundation maintained by a college or university; or any other appropriate partner.
- All grantees are required to provide a 25 percent match in the form of cash or in-kind contributions. The maximum amount of an award is \$250,000 and the maximum project period is three years.
11. Healthy Urban Food Enterprise Development Center – Section 4402 of FCEA provides mandatory funding for a competitively awarded grant to a nonprofit organization to establish and support a healthy urban food enterprise development center to increase access to healthy affordable foods, including locally produced agricultural products, to underserved communities. Funding in the amount of \$1,000,000 is to be made available for FY 2009 through FY 2011.
  12. Biodiesel Fuel Education Program – The goals of this program as originally established in Section 9004 of FSRIA were to stimulate biodiesel consumption and the development of a biodiesel infrastructure.

Congressionally mandated funding will support competitively awarded grants to address the need to balance the positive environmental, social, and human health impacts of biodiesel utilization with the increased per gallon cost to the user. Biodiesel Education projects will focus on the development of practical indicators or milestones to measure their progress towards achieving the following objectives:

- A) Enhance current efforts to collect and disseminate biodiesel information;
- B) Coordinate with other biodiesel educational or promotional programs, and with Federal, State, and local programs aimed at encouraging biodiesel use, including the Energy Policy Act of 2005 program;
- C) Create a nationwide networking system that delivers biodiesel information to targeted audiences, including users, distributors, and other infrastructure-related personnel;
- D) Identify and document the benefits of biodiesel (e.g., lifecycle costing); and
- E) Gather data pertaining to information gaps and develop strategies to address the gaps.

Mandatory funding in the amount of \$1,000,000 is to be made available for each of FY 2008 through FY 2012 to carry out this program.

13. Agriculture Risk Management Education Program – Section 133 of the Agricultural Risk Protection Act of 2000 amended the Federal Crop Insurance Act to establish a competitive grants program for educating agricultural producers on the full range of risk management activities. These activities include futures, options, agricultural trade options, crop insurance, cash forward contracting, debt reduction, production diversification, marketing plans and tactics, farm resources risk reduction, and other appropriate risk management strategies. This program brings the existing knowledge base to bear on risk management issues faced by agricultural producers and expands the program throughout the Nation on a regional and multi-regional basis. Mandatory funding in the amount of \$5,000,000 is to be made available annually.

14. Federal Administration (Direct Appropriation) - Provides a portion of the general operating funds for the Federal staff, and national program planning, coordination, and program leadership for the extension work in partnership with the States and territories.

#### Integrated Activities

The following programs are included under the integrated activities account:

Section 7129 of FCEA amended section 406(b) of AREEERA (7 U.S.C. 7626(b)) by adding Hispanic-serving agricultural colleges and universities (HSACUs) to the eligibility for section 406 funds. HSACUs are defined in section 1404(10) of NARETPA as colleges and universities that (1) qualify as Hispanic-serving institutions; and (2) offer associate, bachelors, or other accredited degree programs in agriculture-related fields. The following programs are provided pursuant to the authority found in section 406. Funding for all programs is provided on a competitive basis.

1. Water Quality - This program assists the State Agricultural Experiment Stations and the Cooperative Extension System to become viable partners with other State and Federal agencies in addressing water quality problems of National importance.
2. Food Safety - This program provides for research, extension, and education programs to improve the safety of food products and to create a public that is more informed about food safety issues.
3. Regional Pest Management Centers - Pest management centers are the focal point for team building efforts, communication networks, and stakeholder participation within a given region. The centers bring together and help focus the institutional and individual expertise needed to address successfully a range of pest management issues confronting farmers and other pest managers (e.g., regulatory restrictions, development of pest resistance, invasive species, and biotechnology).
4. Crops at Risk from Food Quality Protection Act (FQPA) Implementation - This program is an intermediate-term research and extension program with the at-risk cropping system as the focal point.

Development of new multiple-tactic IPM strategies designed to assist in the transition period for certain pesticides affected by the implementation of the FQPA of 1996 is the goal of the program.

5. FQPA Risk Mitigation Program for Major Food Crop Systems - This program emphasizes the development and implementation of new and innovative pest management systems designed to maintain the productivity and profitability of major acreage crops, while meeting or exceeding environmental quality and human health standards as required by the FQPA.

6. Methyl Bromide Transition Program - This program is designed to support the discovery and implementation of practical pest management alternatives for commodities affected by the methyl bromide phase-out. The program focuses on short- to medium-term solutions for all commodities at risk using either combinations of presently available technologies or some newly developed practices.

7. Organic Transition Program - This program supports the development and implementation of biologically based pest management practices that mitigate the ecological, agronomic and economic risks associated with a transition from conventional to organic agricultural production systems.

Additional authorities for competitive integrated programs include:

1. International Science and Education Grants Program - Section 1459A of NARETPA- This program focuses on incorporating substantive international activities into programs related to food systems agriculture and natural resources at U.S. land-grant colleges and universities.

2. Critical Issues Program - Section 2(c)(1)(B) of the 1965 Act (7 U.S.C. 450i(c)(1)(B)) - This program supports the development of early intervention strategies to prevent, manage or eradicate new and emerging diseases, both plant and animal, which would prevent loss of revenue to growers or producers.

3. Rural Development Centers - Section 2(c)(1)(B) of the 1965 Act (7 U.S.C. 450i(c)(1)(B)) provides funds at four regional centers in Pennsylvania, Mississippi, Utah, and Iowa. Programs are designed to improve the social and economic well-being of rural communities in their respective regions. These funds are distributed according to the extent of the problem that requires attention in each state.

4. Food and Agriculture Defense Initiative Program - Section 1484 of NARETPA provides support for a unified network of public agricultural institutions to identify and respond to high risk biological pathogens in the food and agricultural system. The network will be used to increase the ability to protect the Nation from disease threats by identifying, containing, and minimizing disease threats. The Extension Disaster Education Network (EDEN) also is supported under this program. EDEN is a collaborative multi-state effort led by State extension services across the country to improve the delivery of services to citizens affected by disasters. In FY 2010, the program also will support the development of a pest risk management tool for Asian soybean rust and other pathogens of legumes.

5. Organic Agriculture Research and Extension Initiative – Section 7206 of FCEA amended section 1672B of the FACT Act to provide \$20,000,000 for FY 2010 through FY 2012 for the Organic Agricultural Research and Extension Initiative. The purpose of this congressionally mandated program is to make competitive grants to support research and extension activities regarding organically grown and processes agricultural commodities.

6. Specialty Crop Research Initiative - Section 7311 of FCEA amended Title IV of AREERA (7 U.S.C. 7621 et seq.) to establish a specialty crop research and extension initiative to address the critical needs of the specialty crop industry by developing and disseminating science-based tools to address needs of specific crops and their regions. The Specialty Crop Research Initiative (SCRI) competitive grants program was established to solve critical industry issues through research and extension activities. Specialty crops are defined as fruits and vegetables, tree nuts, dried fruits, and horticulture and nursery crops including floriculture. SCRI will give priority to projects that are multistate, multi-institutional, or trans-disciplinary; and include explicit mechanisms to communicate results to producers and the public. Projects must address at least one of the following five focus areas:

- A) Research in plant breeding, genetics, and genomics to improve crop characteristics;
- B) Efforts to identify and address threats from pests and diseases, including threats to pollinators;
- C) Efforts to improve production efficiency, productivity, and profitability over the long term;
- D) New innovations and technology, including improved mechanization and technologies that delay or inhibit ripening; and
- E) Methods to prevent, detect, monitor control, and respond to potential food safety hazards in the production and processing of specialty crops.

Eligible applicants for grants under this authority include Federal agencies, national laboratories, colleges and universities, research institutions and organizations, private organizations or corporations, State agricultural experiment stations, individuals, and groups consisting of two or more entities defined in this sentence. Mandatory funding in the amount of \$50,000,000 is to be made available for each of FY 2009 through FY 2012 to carry out the SCRI.

#### Biomass Research and Development Initiative

The purpose of this initiative, authorized under Section 9008 of FSRIA, is to competitively award grants, contracts, and financial assistance to eligible entities to carry out research and development and demonstration of: (1) Biofuels and biobased products; and (2) the methods, practices, and technologies, for the production of biofuels and biobased products. This program was transferred on October 1, 2008, from Rural Development to NIFA. Awardees are required to cost share at 20 percent. Waiver authority for the cost share requirement is provided to the Secretary. To be eligible for an award, an applicant must be an institution of higher education, a National Laboratory, a Federal research agency, a State research agency, a private sector entity, a nonprofit organization, or a consortium of two or more of the entities defined in this sentence. Mandatory funding is made available in the amount of \$28,000,000 in FY 2010, \$30,000,000 in FY 2011, and \$40,000,000 in FY 2012.

This initiative requires the Secretary of Agriculture and the Secretary of Energy, in consultation with the Environmental Protection Agency and heads of other appropriate departments and agencies to direct the initiative in the following three areas:

- A) Feedstocks development;
- B) Biofuels and biobased products development; and
- C) Biofuels development analysis.

#### Community Food Projects

Section 25 of the Food Stamp Act of 1977, as amended by Section 4125 of the Farm Security and Rural Investment Act of 2002, authorized funding in support of competitively awarded Community Food Projects (CFP). The objectives of the CFP Program are to increase the food self-reliance of communities; promote comprehensive responses to local food, farm, and nutrition issues; develop innovative linkages between the public, for-profit, and nonprofit food sectors; and encourage long-term planning activities and comprehensive multi-agency approaches. Projects are intended to bring together stakeholders from the distinct parts of the food system and to foster understanding of national food security trends and how they might improve local food systems. Mandatory funding in the amount of \$5,000,000 is provided annually.

For NIFA program coordination and planning are carried out by staff located entirely in the Washington, D.C. area. As of September 30, 2009, there were 371 permanent full-time employees.

## Agency Audit Reports

National Institute of Food and Agriculture

### OMB Circular A-133 Audits

The audits below are ongoing in FY 2010.

Arkansas Land and Farm Development Corporation, for the Fiscal Year Ended September 30, 2002  
 Auburn University, for the Fiscal Year Ended September 30, 2002  
 Brown University, for the Fiscal Year Ended June 30, 2002  
 College of Micronesia Land Grant Program, for the Fiscal Year Ended September 30, 2002  
 Commonwealth of Virginia–Department of Accounts, for the Fiscal Year Ended June 30, 2002  
 Cornell University, for the Fiscal Year Ended June 30, 2002  
 Howard University, for the Fiscal Year Ended June 30, 2002  
 Institute of Paper Science and Technology, Inc., for the Fiscal Year Ended June 30, 2002  
 Miami University, for the Fiscal Year Ended June 30, 2002  
 National Tribal Development Association, for the Fiscal Year Ended December 31, 2002  
 Northern Marianas College, for the Fiscal Year Ended September 30, 2002  
 Northwestern University, for the Fiscal Year Ended August 31, 2002  
 Rural Action, Inc., for the Fiscal Year Ended December 31, 2002  
 South Carolina State University, for the Fiscal Year Ended June 30, 2002  
 Southeastern Healthcare System Inc./Memorial Hospital of Rhode Island, for the Fiscal Year Ended September 30, 2002  
 State of Colorado, for the Fiscal Year Ended June 30, 2002  
 State of Florida, for the Fiscal Year Ended June 30, 2002  
 State of Georgia, for the Fiscal Year Ended June 30, 2002  
 State of North Carolina, for the Fiscal Year Ended June 30, 2002  
 State of Texas c/o Comptroller of Public Accounts, for the Fiscal Year Ended August 31, 2002  
 State of Wisconsin, for the Fiscal Year Ended June 30, 2002  
 The General Hospital Corporation, for the Fiscal Year Ended September 30, 2002  
 The Ohio State University, for the Fiscal Year Ended June 30, 2002  
 The University of Alabama, for the Fiscal Year Ended September 30, 2002  
 The University of Massachusetts, for the Fiscal Year Ended June 30, 2002  
 Thomas Jefferson Institute for Crop Diversification, for the Fiscal Year Ended December 31, 2002  
 Tuskegee University, for the Fiscal Year Ended June 30, 2002  
 University of Arkansas for Medical Sciences, for the Fiscal Year Ended June 30, 2002  
 University of Georgia, for the Fiscal Year Ended June 30, 2002  
 University of Missouri System, for the Fiscal Year Ended June 30, 2002  
 University of New Mexico, for the Fiscal Year Ended June 30, 2002  
 University of Pennsylvania, for the Fiscal Year Ended June 30, 2002  
 University of Puerto Rico, for the Fiscal Year Ended June 30, 2002  
 University of the Virgin Islands, for the Fiscal Year Ended September 30, 2002  
 Tuskegee University, for the Fiscal Year Ended June 30, 2004  
 Auburn University, for the Fiscal Year Ended September 30, 2004  
 Battelle Memorial Institute, for the Fiscal Year Ended September 30, 2004  
 Boston College, for the Fiscal Year Ended May 31, 2003  
 California Institute of Technology, for the Fiscal Year Ended September 30, 2004  
 Columbia University, for the Fiscal Year Ended June 30, 2004  
 Divergence, Inc., for the Fiscal Year Ended December 31, 2004  
 Eastern Virginia Medical School, for the Fiscal Year Ended June 30, 2004  
 Georgetown University, for the Fiscal Year Ended June 30, 2004  
 Georgia Tech Research Corporation/Georgia Institute of Technology, for the Fiscal Year Ended June 30, 2004  
 Harvard University, for the Fiscal Year Ended June 30, 2004  
 Illinois Central College District 514, for the Fiscal Year Ended June 30, 2004

Illinois Institute of Technology, for the Fiscal Year Ended May 31, 2004  
Lehigh Carbon Community College, for the Fiscal Year Ended June 30, 2004  
Massachusetts Institute of Technology, for the Fiscal Year Ended June 30, 2004  
Michigan Research Institute, for the Fiscal Year Ended December 31, 2004  
Michigan State University, for the Fiscal Year Ended June 30, 2004  
Middlebury College, for the Fiscal Year Ended June 30, 2004  
National Biodiesel Board and Affiliates, for the Fiscal Year Ended September 30, 2004  
Northern Marianas College, for the Fiscal Year Ended September 30, 2004  
Save the Children Federation, Incorporated, for the Fiscal Year Ended September 30, 2004  
State of Arkansas, for the Fiscal Year Ended June 30, 2004  
State of Colorado, for the Fiscal Year Ended June 30, 2004  
State of Louisiana, for the Fiscal Year Ended June 30, 2004  
State of Rhode Island and Providence Plantations, for the Fiscal Year Ended June 30, 2004  
State of Texas C/O Comptroller of Public Accounts, for the Fiscal Year Ended August 31, 2004  
State of Utah, for the Fiscal Year Ended June 30, 2004  
State of Wisconsin, for the Fiscal Year Ended June 30, 2004  
The General Hospital Corporation, for the Fiscal Year Ended September 30, 2004  
The University of Alabama, for the Fiscal Year Ended September 30, 2004  
The University of Massachusetts, for the Fiscal Year Ended June 30, 2004  
University of Arkansas for Medical Sciences, for the Fiscal Year Ended June 30, 2004  
University of Pennsylvania, for the Fiscal Year Ended June 30, 2004  
University of the Virgin Islands, for the Fiscal Year Ended September 30, 2004  
American Samoa Community College, for the Fiscal Year Ended September 30, 2005  
Auburn University, for the Fiscal Year Ended September, 30, 2005  
College of Micronesia Land Grant Program, for the Fiscal Year Ended September 30, 2005  
Georgetown University, for the Fiscal Year Ended June 30, 2005  
Georgia State University Research Foundation, Inc, for the Fiscal Year Ended June 30, 2005  
Georgia Tech Research Corporation/Georgia Institute of Technology, for the Fiscal Year Ended June 30, 2005  
Kentucky State University, for the Fiscal Year Ended June 30, 2005  
Langston University, for the Fiscal Year Ended June 30, 2005  
Massachusetts Institute of Technology, for the Fiscal Year Ended June 30, 2005  
Michigan Research Institute, for the Fiscal Year Ended December 31, 2005  
Michigan State University, for the Fiscal Year Ended June 30, 2005  
National Biodiesel Board, for the Fiscal Year Ended September 30, 2005  
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Northern Marianas College, for the Fiscal Year Ended September 30, 2005  
Ohio University, for the Fiscal Year Ended June 30, 2005  
School District of Monroe, for the Fiscal Year Ended June 30, 2005  
South Carolina State University, for the Fiscal Year Ended June 30, 2005  
State of Arkansas, for the Fiscal Year Ended June 30, 2005  
State of Colorado, for the Fiscal Year Ended June 30, 2005  
State of Florida, for the Fiscal Year Ended June 30, 2005  
State of Georgia, for the Fiscal Year Ended June 30, 2005  
State of South Carolina, for the Fiscal Year Ended June 30, 2005  
State of Texas c/o Comptroller of Public Accounts, for the Fiscal Year Ended August 31, 2005  
State of Wisconsin, for the Fiscal Year Ended June 30, 2005  
Chicago Zoological Society, for the Fiscal Year Ended December 31, 2005  
The University of Alabama, for the Fiscal Year Ended September 30, 2005  
The University of Georgia Research Foundation, for the Fiscal Year Ended June 30, 2005  
University of Massachusetts, for the Fiscal Year Ended June 30, 2005  
University of California, for the Fiscal Year Ended June 30, 2005  
University of Delaware, for the Fiscal Year Ended June 30, 2005  
University of Hawaii, for the Fiscal Year Ended June 30, 2005  
University of Medicine and Dentistry of New Jersey, for the Fiscal Year Ended June 30, 2005  
University of Pennsylvania, for the Fiscal Year Ended June 30, 2005

University of Southern California, for the Fiscal Year Ended June 30, 2005  
 University of the Virgin Islands, for the Fiscal Year Ended September 30, 2005  
 University of Vermont and State Agricultural College, for the Fiscal Year Ended June 30, 2005  
 Alabama A&M University, for the Fiscal Year Ending September 30, 2006  
 American Samoa Community College, for the Fiscal Year Ending September 30, 2006  
 State of Texas c/o Comptroller of Public Accounts, for the Fiscal Year August 31, 2006  
 University of Idaho, for the Fiscal Year Ending June 30, 2006  
 University of Medicine and Dentistry of New Jersey, for the Fiscal Year Ending June 30, 2006  
 University of Missouri, for the Fiscal year ending June 30, 2006  
 University of Richmond, for the Fiscal Year Ending June 30, 2006  
 Alabama A&M University, for the Fiscal Year Ending September 30, 2007  
 Alamo Community College District, for the Fiscal Year Ending August 31, 2007  
 Alaska Association of Conservation Districts, for the Fiscal Year Ending June 30, 2007  
 Allan Hancock Joint Community College District, for the Fiscal Year Ending June 30, 2007  
 American Society for Microbiology, for the Fiscal Year Ending December 31, 2007  
 American University, for the Fiscal Year Ending April 30, 2007  
 Appleton Area School District, for Fiscal Year Ending June 30, 2007  
 Assiniboine and Sioux Tribes, for the Fiscal Year Ending September 30, 2007  
 Auburn University, for the Fiscal Year Ending September 30, 2007  
 Battelle Memorial Institute, for the Fiscal Year Ending September 30, 2007  
 Baylor College of Medicine, for the Fiscal Year Ending June 30, 2007  
 Blackfeet Community College for the Fiscal Year Ending September 30, 2007  
 Board of Regents Southwestern Indian Polytechnic Institute, for the Fiscal Year Ending  
 December 31, 2007  
 Boise State University, for Fiscal Year Ending June 30, 2007  
 Boston University, for the Fiscal Year Ending June 30, 2007  
 Bowling Green State University, for the Fiscal Year Ending June 30, 2007  
 Brigham Young University, for the Fiscal Year Ending December 31, 2007  
 Brown University, for the Fiscal Year Ending June 30, 2007  
 California Institute of Technology, for the Fiscal Year Ending September 30, 2007  
 California State University, for the Fiscal Year Ending June 30, 2007  
 Cambridge Public Health Commission/Cambridge Health Alliance, for the Fiscal Year Ending  
 June 30, 2007  
 Carnegie Institution of Washington, for Fiscal Year Ending June 30, 2007  
 Carnegie Mellon University, for the Fiscal Year Ending June 30, 2007  
 Case Western Reserve University, for Fiscal Year Ending June 30, 2007  
 Chief Dull Knife College, for the Fiscal Year Ending September 30, 2007  
 City and County of San Francisco, for the Fiscal Year Ending June 30, 2007  
 City of Hope and Affiliates, for the Fiscal Year Ending September 30, 2007  
 City of Miami, for the Fiscal Year Ending September 30, 2007  
 City of Springfield, for the Fiscal Year Ending June 30, 2007  
 Clark Atlanta University, for the Fiscal Year Ending June 30, 2007  
 Clark State Community College, for the Fiscal Year Ending June 30, 2007  
 Cleveland Clinic, for the Fiscal Year Ending December 31, 2007  
 Cleveland State University, for the Fiscal Year Ending June 30, 2007  
 College of Micronesia (Land Grant Program Only), for the Fiscal Year Ending September 30, 2007  
 Columbia University, for the Fiscal Year Ending June 30, 2007  
 Commonwealth of Pennsylvania, for the Fiscal Year Ending June 30, 2007  
 Delaware State University, for the Fiscal Year Ending June 30, 2007  
 Department of Accounts – Commonwealth of Virginia, for the Fiscal Year Ending June 30, 2007  
 Donald Danforth Plant Science Center, for the Fiscal Year Ending December 31, 2007  
 Dordt College, Inc., for the Fiscal Year Ending June 30, 2007  
 Drexel University, for the Fiscal Year Ending June 30, 2007  
 Duke University, for the Fiscal Year Ending June 30, 2007  
 Eastern Illinois University, for the Fiscal Year Ending June 30, 2007  
 Eastern Oklahoma State College, for the Fiscal Year Ending June 30, 2007

Edward Via Virginia College of Osteopathic Medicine, for the Fiscal Year Ending June 30, 2007  
Firebaugh-Las Deltas Unified School District, for the Fiscal Year Ending June 30, 2007  
Florida West Coast Resource Conservation and Develop Council, Inc., for the Fiscal Year Ending September 30, 2007  
Fond Du Lac Band of Lake Superior Chippewa, for the Fiscal Year Ending September 30, 2007  
Fort Berthold Community College, for the Fiscal Year Ending September 30, 2007  
Georgetown University, for the Fiscal Year Ending June 30, 2007  
Georgia State University Research Foundation, for the Fiscal Year Ending June 30, 2007  
Georgia Tech Research Corporation/Georgia Institute of Technology, for the Fiscal Year Ending June 30, 2007  
Girl Scouts of the United State of America, for the Fiscal Year Ending September 30, 2007  
Government of the District of Columbia, for the Fiscal Year Ending September 30, 2007  
Great Lakes Inter-Tribal Council, Inc., for the Fiscal Year Ending September 30, 2007  
Hartnell Community College District, for the Fiscal Year Ending June 30, 2007  
Harvard University, for the Fiscal Year Ending June 30, 2007  
Howard-Suamico School District, for the Fiscal Year Ending June 30, 2007  
Iisagvik College, for the Fiscal Year Ending June 30, 2007  
Illinois Institute of Technology, May 31, 2007  
Indiana State University, for the Fiscal Year Ending June 30, 2007  
Inter-American University of Puerto Rico, for the Fiscal Year Ending June 30, 2007  
Iowa Valley Community College District, for the Fiscal Year Ending June 30, 2007  
Ithaca College, for the Fiscal Year Ending May 31, 2007  
Keck Graduate Institute of Applied Life Sciences, for the Fiscal Year Ending June 30, 2007  
Kentucky State University, for the Fiscal Year Ending June 30, 2007  
Kenyon College, for the Fiscal Year Ending June 30, 2007  
Lac Courte Oreilles Ojibwa Community College, for the Fiscal Year Ending June 30, 2007  
Langston University, for the Fiscal Year Ending June 30, 2007  
Lincoln University, for the Fiscal Year Ending June 30, 2007  
Little Big Horn College, for the Fiscal Year Ending June 30, 2007  
Little Priest Tribal College, for the Fiscal Year Ending June 30, 2007  
Long Beach Community College District, for the Fiscal Year Ending June 30, 2007  
Long Island University, for the Fiscal Year Ending August 31, 2007  
Los Angeles Community College District, for the Fiscal Year Ending June 30, 2007  
Maricopa County Community College District, for the Fiscal Year Ending June 30, 2007  
Marquette University, for the Fiscal Year Ending June 30, 2007  
Massachusetts Institute of Technology, for the Fiscal Year Ending June 30, 2007  
Miami University, for the Fiscal Year Ending June 30, 2007  
Michigan State University, for the Fiscal Year Ending June 30, 2007  
Michigan Research Institute, for the Fiscal Year Ending December 31, 2007  
Milwaukee Public Schools, for the Fiscal Year Ending June 30, 2007  
Missouri State University, for the Fiscal Year Ending June 30, 2007  
National Biodiesel Board, for the Fiscal Year Ending September 30, 2007  
Navajo Technical College formerly known as Crownpoint Institute of Technology, for the Fiscal Year Ending May 31, 2007  
Nevada Cancer Institute Holding Company, for the Fiscal Year Ending December 31, 2007  
Nevada System of Higher Education, for the Fiscal Year Ending June 30, 2007  
New England Medical Center Hospitals, Inc., for the Fiscal Year Ending September 30, 2007  
New Mexico State University, for the Fiscal Year Ending June 30, 2007  
New York University, for the Fiscal Year Ending August 31, 2007  
Nome Public Schools, for the Fiscal Year Ending June 30, 2007  
Northern Illinois University, for the Fiscal Year Ending June 30, 2007  
Northern Marianas College, for the Fiscal Year Ending September 30, 2007  
Northwestern University, for the Fiscal Year Ending August 31, 2007  
Oglala Lakota College, for the Fiscal Year Ending September 30, 2007  
Ohio University, for the Fiscal Year Ending June 30, 2007  
Oklahoma State University, for the Fiscal Year Ending June 30, 2007

Pueblo of Pojoaque, for the Fiscal Year Ending September 30, 2007  
Research Foundation of SUNY, for the Fiscal Year Ending June 30, 2007  
Riverside Community College District, for the Fiscal Year Ending June 30, 2007  
Rochester Institute of Technology, for the Fiscal Year Ending June 30, 2007  
Roger Williams University, for the Fiscal Year Ending June 30, 2007  
Rural Action, Inc. , for the Fiscal Year Ending December 31, 2007  
Rutgers, The State University of New Jersey, for the Fiscal Year Ending June 30, 2007  
Saint Louis University, for the Fiscal Year Ending June 30, 2007  
Sheldon Jackson College and Affiliate, for the Fiscal Year Ending June 30, 2007  
Sinte Gleska University, for the Fiscal Year Ending September 30, 2007  
Sisseton-Wahpeton College, for the Fiscal Year Ending June 30, 2007  
Sistema Universitario Ana G. Mendez, Incorporado, for the Fiscal Year Ending July 31, 2007  
Smithsonian Institution, for the Fiscal Year Ending September 30, 2007  
South Carolina State University, for the Fiscal Year Ending June 30, 2007  
Southern Illinois University, for the Fiscal Year Ending June 30, 2007  
St. Augustine College, for the Fiscal Year Ending June 30, 2007  
State of Alabama, for the Fiscal Year Ending September 30, 2007  
State of Alaska, for the Fiscal Year Ending June 30, 2007  
State of Arizona, for the Fiscal Year Ending June 30, 2007  
State of Arkansas, for the Fiscal Year Ending June 30, 2007  
State of Colorado, for the Fiscal Year Ending June 30, 2007  
State of Connecticut, for the Fiscal Year Ending June 30, 2007  
State of Delaware, for the Fiscal Year Ending June 30, 2007  
State of Florida, for the Fiscal Year Ending June 30, 2007  
State of Georgia/State Accounting Office, for the Fiscal Year Ending June 30, 2007  
State of Idaho C/O Office of State Controller, for the Fiscal Year Ending June 30, 2007  
State of Illinois Governor's Office of Management and Budget, for the Fiscal Year Ending June 30, 2007  
State of Iowa, for the Fiscal Year Ending June 30, 2007  
State of Kansas, for the Fiscal Year Ending June 30, 2007  
State of Louisiana, for the Fiscal Year Ending June 30, 2007  
State of Maryland, for the Fiscal Year Ending June 30, 2007  
State of Minnesota, for the Fiscal Year Ending June 30, 2007  
State of Montana, for the Fiscal Year Ending June 30, 2007  
State of Nebraska, for the Fiscal Year Ending June 30, 2007  
State of Nevada, for the Fiscal Year Ending June 30, 2007  
State of New Hampshire, for the Fiscal Year Ending June 30, 2007  
State of New Jersey, for the Fiscal Year Ending June 30, 2007  
State of North Carolina, for the Fiscal Year Ending June 30, 2007  
State of Ohio, for the Fiscal Year Ending June 30, 2007  
State of Oregon, for the Fiscal Year Ending June 30, 2007  
State of Rhode Island and Providence Plantations, for the Fiscal Year Ending June 30, 2007  
State of South Carolina, for the Fiscal Year Ending June 30, 2007  
State of South Dakota, for the Fiscal Year Ending June 30, 2007  
State of Tennessee, for the Fiscal Year Ending June 30, 2007  
State of Texas C/O Comptroller of Public Accounts, for the Fiscal Year Ending August 31, 2007  
State of Utah, for the Fiscal Year Ending June 30, 2007  
State of Washington C/O Office of Financial Management, for the Fiscal Year Ending June 30, 2007  
State of West Virginia, for the Fiscal Year Ending June 30, 2007  
State of Wisconsin, for the Fiscal Year Ending June 30, 2007  
State System of Higher Education, Commonwealth of Pennsylvania, for the Fiscal Year Ending June 30, 2007  
Stone Child College, for the Fiscal Year Ending September 30, 2007  
Syracuse University, for the Fiscal Year Ending June 30, 2007  
Territory of American Samoa, for the Fiscal Year Ending September 30, 2007  
The Center for Rural Affairs, for the Fiscal Year Ending August 31, 2007  
The College of New Jersey, for the Fiscal Year Ending June 30, 2007

The Hopi Tribe, for the Fiscal Year Ending December 31, 2007  
The Navajo Nation, for the Fiscal Year Ending September 30, 2007  
The Ohio State University, for the Fiscal Year Ending June 30, 2007  
The Shoshone Bannock Tribes, for the Fiscal Year Ending September 30, 2007  
The University of Alabama, for the Fiscal Year Ending September 30, 2007  
The University of Alabama at Birmingham, for the Fiscal Year Ending September 30, 2007  
The University of Chicago, for the Fiscal Year Ending June 30, 2007  
The University of Massachusetts, for the Fiscal Year Ending June 30, 2007  
Tri-County Area School District, for the Fiscal Year Ending June 30, 2007  
Trustees of Dartmouth College, for the Fiscal Year Ending June 30, 2007  
Tufts University, for the Fiscal Year Ending June 30, 2007  
University of Arkansas For Medical Sciences, for the Fiscal Year Ending June 30, 2007  
University of California, for the Fiscal Year Ending June 30, 2007  
University of Central Missouri, for the Fiscal Year Ending June 30, 2007  
University of Cincinnati, for the Fiscal Year Ending June 30, 2007  
University of Delaware, for the Fiscal Year Ending June 30, 2007  
University of Denver (Colorado Seminary), for the Fiscal Year Ending June 30, 2007  
University of Hawaii, for the Fiscal Year Ending June 30, 2007  
University of Idaho, for the Fiscal Year Ending June 30, 2007  
University of Illinois, for the Fiscal Year Ending June 30, 2007  
University of Louisville, for the Fiscal Year Ending June 30, 2007  
University of Maine System, for the Fiscal Year Ending June 30, 2007  
University of Medicine & Dentistry of New Jersey, for the Fiscal Year Ending June 30, 2007  
University of Missouri System, for the Fiscal Year Ending June 30, 2007  
University of New Mexico, for the Fiscal Year Ending June 30, 2007  
University of Notre Dame Du Lac, for the Fiscal Year Ending June 30, 2007  
University of Pennsylvania, for the Fiscal Year Ending June 30, 2007  
University of Puerto Rico, for the Fiscal Year Ending June 30, 2007  
University of Rochester, for the Fiscal Year Ending June 30, 2007  
University of Southern California, for the Fiscal Year Ending June 30, 2007  
University of St. Thomas, for the Fiscal Year Ending June 30, 2007  
University of the Incarnate Word, for the Fiscal Year Ending May 31, 2007  
University of the Virgin Islands, for the Fiscal Year Ending September 30, 2007  
University of Vermont and State Agricultural College, for the Fiscal Year Ending June 30, 2007  
University of Wyoming, for the Fiscal Year Ending June 30, 2007  
Upper Kanawha Valley Enterprise Community, Inc., for the Fiscal Year Ending September 30, 2007  
Van Buren Community School District, for the Fiscal Year Ending June 30, 2007  
Ventura County Community College District, for the Fiscal Year Ending June 30, 2007  
Waianae District Comprehensive Health and Hospital Board, Inc., for the Fiscal Year Ending June 30, 2007  
Washington University, for the Fiscal Year Ending June 30, 2007  
Wayne State University, for the Fiscal Year Ending September 30, 2007  
Western Michigan University, for the Fiscal Year Ending June 30, 2007  
William Marsh Rice University, for the Fiscal Year Ending June 30, 2007  
Wright State University, for the Fiscal Year Ending June 30, 2007  
Yale University, for the Fiscal Year Ending June 30, 2007  
American University, for the Fiscal Year Ending April 30, 2008  
Auburn University, for the Fiscal Year Ending June 30, 2008  
Case Western Reserve University, for the Fiscal Year Ending June 30, 2008  
Cleveland Clinic Foundation D.B.A. Cleveland Clinic, for the Fiscal Year Ending December 31, 2008  
College of Micronesia, for the Fiscal Year Ending September 30, 2008  
Columbia University, for the Fiscal Year Ending June 30, 2008  
Delaware State University, for the Fiscal Year Ending March 31, 2008  
Georgia State University Research Foundation, Inc. and Affiliate, for the Fiscal Year Ending June 30, 2008  
Georgia Tech Research Corporation/Georgia Institute of Technology, for the Fiscal Year Ending June 30, 2008

Kaiser Foundation Hospitals, for the Fiscal Year Ending December 31, 2008  
 Kentucky State University, for the Fiscal Year Ending June 30, 2008  
 Northern Marianas College, for the Fiscal Year Ending September 30, 2008  
 Saint Louis University, for the Fiscal Year Ending March 31, 2008  
 State of Arkansas, for the Fiscal Year Ending June 30, 2008  
 State of Florida, for the Fiscal Year Ending June 30, 2008  
 State of Mississippi Institutions of Higher Learning, for the Fiscal Year Ending June 30, 2008  
 State of North Dakota, for the Fiscal Year Ending June 30, 2008  
 State of Tennessee, for the Fiscal Year Ending June 30, 2008  
 State of Texas, for the Fiscal Year Ending August 31, 2008  
 Texas A&M Research Foundation, for the Fiscal Year Ending August 31, 2008  
 The Ohio State University, for the Fiscal Year Ending June 30, 2008  
 The Research Foundation of the City University of New York, for the Fiscal Year Ending June 30, 2008  
 The University of Chicago, for the Fiscal Year Ending June 30, 2008  
 Tufts University, for the Fiscal Year Ending June 30, 2008  
 University of Delaware, for the Fiscal Year Ending June 30, 2008  
 University of Medicine and Dentistry of New Jersey, for the Fiscal Year Ending June 30, 2008  
 University of Missouri System, for the Fiscal Year Ending June 30, 2008  
 University of Puerto Rico, for the Fiscal Year Ending June 30, 2008  
 University of Vermont and State Agricultural College, for the Fiscal Year Ending June 30, 2008  
 University of Wyoming, for the Fiscal Year Ending June 30, 2008  
 University System of New Hampshire, for the Fiscal Year Ending June 30, 2008  
 Waianae District Comprehensive Health and Hospital Board, Inc. , for the Fiscal Year Ending June 30, 2008  
 Western University of Health Sciences, for the Fiscal Year Ending June 30, 2008  
 Woods Hole Oceanographic Institution, for the Fiscal Year Ending December 31, 2008

OIG Reports (OIG Audit No. and Title)

13001-3-Te NIFA Implementation of Agricultural Research, Extension, and Education Reform Act of 1998. NIFA anticipates that corrective action will be completed in 2010.  
 13011-3-At Review of 1994 Tribal Land Grant Institutions. NIFA anticipates that corrective action will be completed in 2010.  
 50601-14-Te Exports of Genetically Engineered Agricultural Commodities. NIFA anticipates that corrective action will be completed in 2010.  
 50601-16-Te Controls over Genetically Engineered Animal and Insect Research. In process.

GAO Studies (GAO Job Code and Title)

GAO-09-178 Veterinarian Workforce: Actions are Needed to Ensure Sufficient Capacity for Protecting Public and Animal Health. Final report issued February 2009.  
 GAO-09-193 Nonprofit Sector: Significant Federal Funds Reach the Sector through Various Mechanisms but More Complete and Reliable Funding Data are Needed. Final report issued March 2009.  
 120788 Department of Defense Research Facilities and Administration Cost Reimbursement. No report issued.  
 130812 Overview of Educational Programs. Report to be issued approximately January 2010.  
 194749 Improving Federal Oversight and Accountability for Federal Grant Funds. Report issued March 2009.  
 361094 Native American Graves. Open, no forecasted report date.  
 361095 Management and Activities of the Propane Education and Research Council and the National Oilheat Research Alliance. Report to be issued by April 2010.  
 440674 Integration of U.S. Biosurveillance Efforts. Report to be issued approximately April 2010.

NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

Available Funds and Staff-Years

2009 Actual and Estimated 2010 and 2011

Item	2009		2010		2011	
	Actual	Staff	Estimated	Staff	Estimated	Staff
	Amount	Years	Amount	Years	Amount	Years
<b>Direct Appropriations:</b>						
Research and Education Activities .....	\$691,043,000	204	\$788,243,000	252	\$838,729,000	252
Native American Endowment Fund .....	11,880,000		11,880,000		11,880,000	
Endowment Interest .....	3,823,000		4,267,000		4,650,000	
Hispanic-Serving Agricultural Colleges and Universities Endowment Fund .....	--		--		10,000,000	
Extension Activities .....	474,250,000	156	494,923,000	172	479,203,000	172
Integrated Activities .....	56,864,000	10	60,022,000	10	24,874,000	10
Trade and Biotechnology Activities (Specialty Crops) .....	39,475		--		--	
Risk Management Education Program .....	5,000,000		5,000,000		5,000,000	
Biodiesel Fuel Education Program, Section 9004 .....	1,000,000		1,000,000		1,000,000	
Specialty Crop Research Initiative.....	50,000,000		50,000,000		50,000,000	
Congressional Relations .....	130,000		130,000		130,000	
Community Food Projects .....	10,000,000		5,000,000		5,000,000	
Biomass Research and Development, Sec. 9008 .....	20,000,000		28,000,000		30,000,000	
Organic Agriculture Research and Extension Initiative, Sec. 7218 .....	3,000,000		--		--	
Organic Research Initiative .....	18,000,000		20,000,000		20,000,000	
Food Products to Improve Nutritional Delivery of Food Aid (GP 724) ..	--		4,000,000		--	
Outreach and Technical Assistance for Socially Disadvantaged Farmers and Ranchers, Sec. 14004 .....	15,000,000		--		--	
Beginning Farmer and Rancher Programs, Section 7410 .....	18,000,000		19,000,000		19,000,000	
Healthy Urban Food Enterprise Development Center, Sec. 4402 .....	1,000,000		1,000,000		1,000,000	
Trade Adjustment Assistance for Farmers .....	19,600,000		--		--	
<b>Total, Direct Appropriations .....</b>	<b>1,398,629,475</b>	<b>370</b>	<b>1,492,465,000</b>	<b>434</b>	<b>1,500,466,000</b>	<b>434</b>
<b>Obligations under other USDA appropriations:</b>						
<b>Research and Education Activities:</b>						
<b>Agricultural Research Service:</b>						
Biotechnology Risk Assessment .....	1,853,400	--	1,853,400	--	1,853,400	--
<b>Foreign Agricultural Service:</b>						
Salary, Benefits, and Operating Expenses for Detailee .....	337,713	--	337,713	--	337,713	--
<b>Forest Service:</b>						
Biotechnology Risk Assessment .....	70,380	--	70,380	--	70,380	--
Graduate Training .....	250,000	--	250,000	--	--	--
Tree Genome Research Under Agriculture/Food Research Initiative ..	500,000	--	--	--	--	--
National Atmospheric Deposition Program .....	222,847	--	222,847	--	222,847	--
<b>Rural Management Agency:</b>						
Integrated Pest Management Pest Information Platform for Extension and Education .....	500,000	--	500,000	--	500,000	--
Risk Management Tool for Aquaculture Product .....	180,000	--	--	--	--	--
Various agencies sharing cost of the USDA Small Business Innovation Research Program (SBIR) .....	2,680,941	--	2,636,460	--	2,247,115	--
Various research agencies sharing cost of the Current Research Information System (CRIS) .....	618,659	6	618,659	6	618,659	6
Miscellaneous Reimbursements .....	60,500	--	--	--	--	--
Other Anticipated Reimbursements.....	--	--	1,000,000	--	1,000,000	--
<b>Subtotal, Res./Ed. Other USDA Appropriations .....</b>	<b>7,274,440</b>	<b>6</b>	<b>7,489,459</b>	<b>6</b>	<b>6,850,114</b>	<b>6</b>
<b>Extension Activities:</b>						
<b>Foreign Agricultural Service:</b>						
Iraq Agricultural Extension Revitalization Project .....	1,600,000	--	1,600,000	--	1,600,000	--
Salary, Benefits, and Operating Expenses for Detailee .....	113,318	--	--	--	--	--
<b>Risk Management Agency:</b>						
Nursery Training Proposal .....	150,000	--	--	--	--	--
Miscellaneous Reimbursements .....	264,937	--	264,938	--	267,938	--
Other Anticipated Reimbursements .....	--	--	408,267	--	0	--
<b>Subtotal, Extension Other USDA Appropriations .....</b>	<b>2,128,255</b>	<b>0</b>	<b>2,273,205</b>	<b>0</b>	<b>1,867,938</b>	<b>0</b>
<b>Total, NIFA Other USDA Appropriations .....</b>	<b>9,402,695</b>	<b>6</b>	<b>9,762,664</b>	<b>6</b>	<b>8,718,052</b>	<b>6</b>
<b>Total, Agriculture Appropriations .....</b>	<b>1,408,032,170</b>	<b>376</b>	<b>1,502,227,664</b>	<b>440</b>	<b>1,509,184,052</b>	<b>440</b>

Item	2009		2010		2011	
	Actual		Estimated		Estimated	
	Amount	Staff Years	Amount	Staff Years	Amount	Staff Years
<b>Other Federal Funds:</b>						
<b>Research and Education Activities:</b>						
Army Corps of Engineers:						
Recreation and Natural Resource Investigations.....	273,691	--	273,691	--	273,691	--
Department of Commerce:						
National Oceanic and Atmospheric Administration,						
National Atmospheric Deposition Program .....	243,007	--	243,007	--	243,007	--
Department of Defense:						
Foot and Mouth Disease .....	250,000	--	250,000	--	250,000	--
Avian Influenza .....	268,796	--	268,796	--	268,796	--
U. S. Army Environmental Center Liaison .....	205,000	--	205,000	--	205,000	--
Department of Interior:						
Geological Survey, Atmospheric Deposition .....	654,260	--	654,260	--	654,260	--
National Park Service, Atmospheric Deposition .....	319,460	--	319,460	--	319,460	--
Department of State:						
Salary, Benefits, and Operating Expenses for Detailee .....	121,759		--		--	--
Environmental Protection Agency:						
National Atmospheric Deposition Program .....	310,188	--	310,188	--	310,188	--
Miscellaneous Reimbursements .....	173,714	--	--	--	--	--
Other Anticipated Reimbursements .....	--	--	80,454	--	719,799	--
Subtotal, Res./Educ. Other Federal Funds .....	2,819,875	0	2,604,856	0	3,244,201	0
<b>Extension Activities:</b>						
Department of Defense:						
Family Life Skills .....	3,624,252	--	3,624,252	--	3,624,252	--
Alcohol & Drug Abuse Prevention .....	215,777	--	215,777		215,777	
Army 4-H Military Partnership .....	17,030,000	--	17,030,000		17,030,000	
Army Family Advocacy Program .....	491,237	--	491,237		491,237	
Army Wounded Warrior Program .....	3,184,500	--	3,184,500		3,184,500	
Army Youth Development Project .....	970,000	--	970,000	--	970,000	--
Air Force 4-H Programs .....	2,000,000	--	2,000,000	--	2,000,000	--
Air Force Advocacy Program .....	868,000	--	868,000	--	868,000	--
Navy Child and Youth Programs .....	213,681	--	213,681	--	213,681	--
Navy 4-H Programs .....	2,300,000	--	2,300,000	--	2,300,000	--
Department of Homeland Security:						
Emergency Preparedness Demonstration Program .....	350,000	--	350,000	--	350,000	--
Department of Housing and Urban Development:						
Healthy Homes Project .....	350,000	--	350,000	--	310,000	--
IPM Training to Public Housing Authorities .....	205,000	--	205,000	--	205,000	--
Environmental Protection Agency:						
Training for Pesticide Applicators .....	1,600,000	--	1,600,000	--	1,600,000	--
Agriculture Water Quality .....	144,950	--	--	--	--	--
Miscellaneous Reimbursements .....	178,902	--	178,902	--	178,902	--
Other Anticipated Reimbursements .....	--	--	0	--	345,267	--
Subtotal, Extension Other Federal Funds .....	33,726,299	0	33,581,349	0	33,886,616	0
Total, NIFA Other Federal Funds .....	36,546,174	0	36,186,205	0	37,130,817	0
Total, NIFA Available Funds .....	1,444,578,344	376	1,538,413,869	440	1,546,314,869	440

## NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

Permanent Positions by Grade and Staff-Year Summary2009 Actual and Estimated 2010 and 2011

	2009	::	2010	::	2011
Grade	Headquarters	::	Headquarters	::	Headquarters
Senior Executive Service	10	::	10	::	10
GS-15	79	::	84	::	84
GS-14	49	::	53	::	53
GS-13	53	::	60	::	60
GS-12	70	::	70	::	70
GS-11	19	::	30	::	30
GS-10	1	::	1	::	1
GS-9	18	::	20	::	20
GS-8	19	::	22	::	22
GS-7	42	::	50	::	50
GS-6	24	::	28	::	28
GS-5	11	::	10	::	10
GS-4	2	::	2	::	2
Total Permanent Positions .....	397	::	440	::	440
Unfilled Positions end-of-year.....	-26	::	-26	::	-26
Total, Permanent Full-Time Employment, end-of-year.....	371	::	414	::	414
Staff-Year Estimate....	376	::	440	::	440

## NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets).

Research and Education Activities

For payments to agricultural experiment stations, for cooperative forestry and other research, for facilities, and for other expenses, [\$788,243,000, of which \$120,054,000 shall be for the purposes, and in the amounts, specified in the table titled "Congressionally Designated Projects" in the statement of managers to accompany this Act,]~~\$838,729,000~~ as follows: to carry out the provisions of the Hatch Act of 1887 (7 U.S.C. 361a-i), \$215,000,000; for grants for cooperative forestry research (16 U.S.C. 582a through a-7), \$29,000,000; for payments to eligible institutions (7 U.S.C. 3222), \$48,500,000, provided that each institution receives no less than \$1,000,000; for special grants (7 U.S.C. 450i(c)), [~~\$89,029,000~~]\$2,021,000; for competitive grants on improved pest control (7 U.S.C. 450i(c)), \$16,185,000; for competitive grants (7 U.S.C. 450(i)(b)), [~~\$262,482,000~~]\$428,845,000, to remain available until expended; for the support of animal health and disease programs (7 U.S.C. 3195), \$2,950,000; for supplemental and alternative crops and products (7 U.S.C. 3319d), \$835,000; for grants for research pursuant to the Critical Agricultural Materials Act (7 U.S.C. 178 et seq.), \$1,083,000, to remain available until expended; for the 1994 research grants program for 1994 institutions pursuant to section 536 of Public Law 103-382 (7 U.S.C. 301 note), \$1,805,000, to remain available until expended; for rangeland research grants (7 U.S.C. 3333), \$983,000; for higher education graduate fellowship grants (7 U.S.C. 3152(b)(6)), \$3,859,000, to remain available until expended (7 U.S.C. 2209b); for a program pursuant to section 1415A of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3151a), \$4,800,000, to remain available until expended; for higher education challenge grants (7 U.S.C. 3152(b)(1)), [~~\$5,654,000~~]\$8,154,000; for a higher education multicultural scholars program (7 U.S.C. 3152(b)(5)), \$1,241,000, to remain available until expended (7 U.S.C. 2209b); for an education grants program for Hispanic-serving Institutions (7 U.S.C. 3241), \$9,237,000; for competitive grants for the purpose of

carrying out all provisions of 7 U.S.C. 3156 to individual eligible institutions or consortia of eligible institutions in Alaska and in Hawaii, with funds awarded equally to each of the States of Alaska and Hawaii, \$3,200,000; for [a] secondary [agriculture] education [program and], 2-year post-secondary education, and agriculture in the K-12 classroom (7 U.S.C. 3152(j)), [\$983,000]\$3,483,000; for aquaculture grants (7 U.S.C. 3322), \$3,928,000; for sustainable agriculture research and education (7 U.S.C. 5811), [\$14,500,000]\$15,000,000; for a program of capacity building grants (7 U.S.C. 3152(b)(4)) to institutions eligible to receive funds under 7 U.S.C. 3221 and 3222, \$18,250,000, to remain available until expended (7 U.S.C. 2209b); for payments to the 1994 Institutions pursuant to section 534(a)(1) of Public Law 103-382, \$3,342,000; for resident instruction grants for insular areas under section 1491 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3363), \$900,000; for distance education grants for insular areas under section 1490 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3362), \$750,000; for a new era rural technology program pursuant to section 1473E of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3319e), \$875,000; [for a competitive grants program for farm business management and benchmarking (7 U.S.C. 5925f), \$1,500,000; for a competitive grants program regarding biobased energy (7 U.S.C. 8114), \$2,250,000;] and for necessary expenses of Research and Education Activities, [\$45,122,000]\$14,503,000, of which \$2,704,000 for the Research, Education, and Economics Information System and [\$2,136,000]\$5,136,000 for the Electronic Grants Information System, are to remain available until expended.

Hispanic-Serving Agricultural Colleges and Universities Endowment Fund

4 For the Hispanic-Serving Agricultural Colleges and Universities Endowment Fund under section 1456 (7 U.S.C. 3243) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977, \$10,000,000, to remain available until expended.

Native American Institutions Endowment Fund

For the Native American Institutions Endowment Fund authorized by Public Law 103-382 (7 U.S.C. 301 note), \$11,880,000, to remain available until expended. (7 U.S.C. 328, 427, 427i, 1281 note, 1621, 2201, 2204, 2225, 3101 note; 10 U.S.C. 2306; 16 U.S.C. 590(a)-590(b), 590(k); 18 U.S.C. 1114; 19 U.S.C. 1306(a), 1306(c); 20 U.S.C. 191-194; 21 U.S.C. 114c, 114e-131; 42 U.S.C. 1476(e), 1483; *Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2010.*)

Explanation of Changes

The first change deletes the language for Congressionally-designated projects described in Section 4 of the explanatory statement of the Consolidated Appropriations Act. The budget does not include funding for these grants.

The second change in the language changes the program title to reflect the title as stated in Section 7109, of the Food, Conservation, and Energy Act of 2008.

The third change deletes the language for the competitive grants program for farm business management and benchmarking (7 U.S.C. 5925f) and for a competitive grants program regarding biobased energy (7 U.S.C. 8114). The budget does not include funding for these projects.

The fourth change adds the language for the Hispanic-Serving Agricultural Colleges and Universities Endowment Fund. Section 7129 of the Food, Conservation, and Energy Act of 2008, provides for the establishment of an endowment fund for Hispanic-Serving Agricultural Colleges and Universities (HSACU). The Hispanic/Latino community is the fastest growing sector of the American population. This investment in the Hispanic-Serving Agricultural Colleges and Universities is needed to ensure institutions can effectively compete for NIFA competitive grants.

This endowment fund for HSACU's will assist in the development of a skilled and marketable student population for employment in the food and agriculture sector from the Hispanic-Serving Agricultural Colleges and Universities. These funds will remain available until expended.

NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

Lead-Off Tabular Statement

RESEARCH AND EDUCATION ACTIVITIES

Appropriation Act, 2010 .....	\$804,390,000 <sup>a/</sup>
Budget Estimate, 2011 .....	<u>865,259,000</u>
Increase in Appropriation .....	<u>+60,869,000</u>

SUMMARY OF INCREASES AND DECREASES

(On basis of appropriation)

<u>Item of Change</u>	<u>2010 Estimate</u>	<u>Pay Costs</u>	<u>Program Changes</u>	<u>2011 Estimate</u>
Research and Education Activities:				
Agriculture and Food Research Initiative (formerly NRI) .....	\$262,482,000	- -	+\$166,363,000	\$428,845,000
Farm Business Management and Benchmarking Program .....	1,500,000	- -	-1,500,000	- -
Sun Grant Program .....	2,250,000	- -	-2,250,000	- -
Sustainable Agriculture Research and Education Program .....	14,500,000	- -	+500,000	15,000,000
Federal Administration (Direct Appropriation) .....	45,122,000	+\$250,000	-30,869,000	14,503,000
Special Research Grants .....	105,214,000	- -	-87,008,000	18,206,000
Higher Education Programs .....	52,216,000	- -	+5,000,000	57,216,000
All Other.....	<u>304,959,000</u>	<u>- -</u>	<u>- -</u>	<u>304,959,000</u>
Subtotal .....	788,243,000	+250,000	+50,236,000	838,729,000
Native American Institutions Interest	4,267,000	- -	+383,000	4,650,000
Hispanic-Serving Agricultural Colleges and Universities Endowment Fund	- -	- -	+10,000,000	10,000,000
Native American Endowment.....	<u>11,880,000</u>	<u>- -</u>	<u>- -</u>	<u>11,880,000</u>
Total Available, Research and Education Activities .....	<u>804,390,000</u>	<u>+250,000</u>	<u>+60,619,000</u>	<u>865,259,000</u>

<sup>a/</sup> Excludes \$4,000,000 provided by General Provision 724 concerning Food Products to Improve Nutritional Delivery of Food Aid.

## NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

## RESEARCH AND EDUCATION

Project Statement by Program  
(On basis of Appropriation)

Project	2009 Actual		2010 Estimate		Increase or Decrease	2011 Estimated	
	Amount	Staff Years	Amount	Staff Years		Amount	Staff Years
<b>Research &amp; Education Activities:</b>							
Hatch Act .....	\$207,106,000		\$215,000,000		--	\$215,000,000	
Cooperative Forestry Research Program .....	27,535,000		29,000,000		--	29,000,000	
Payments to 1890 Colleges and Tuskegee University .....	45,504,000		48,500,000		--	48,500,000	
Animal Health and Disease Research, Section 1433 .....	2,950,000		2,950,000		--	2,950,000	
Special Research Grants							
Other Special Research Grants .....	82,478,000		87,192,000		-87,192,000	--	--
Minor Use Animal Drugs .....	429,000		429,000		--	429,000	
National Biological Impact Assessment Program .....	184,000		--		+184,000	184,000	
Global Change, UV-Monitoring .....	1,408,000		1,408,000		--	1,408,000	
Total Special Research Grants .....	84,499,000		89,029,000		-87,008,000	2,021,000	
Improved Pest Control							
Expert IPM Decision Supp. System .....	154,000		156,000		--	156,000	
Integrated Pest Management .....	2,379,000		2,415,000		--	2,415,000	
Minor Crop Pest Mgmt, IR-4 .....	12,000,000		12,180,000		--	12,180,000	
Pest Management Alternatives .....	1,412,000		1,434,000		--	1,434,000	
Total Improved Pest Control .....	15,945,000		16,185,000		--	16,185,000	
Critical Agricultural Materials							
Act of 1984 .....	1,083,000		1,083,000		--	1,083,000	
Aquaculture Centers, Section 1475 .....	3,928,000		3,928,000		--	3,928,000	
Sustainable Agriculture .....	14,399,000		14,500,000		+500,000	15,000,000	
1994 Research Program .....	1,610,000		1,805,000		--	1,805,000	
Supplemental and Alternative Crops, Section 1473D .....	819,000		835,000		--	835,000	
Agriculture and Food Research Initiative (formerly NRI) .....	201,504,000		262,482,000		+166,363,000	428,845,000	
Farm Business Management and Benchmarking Program .....	--		1,500,000		-1,500,000	--	
Sun Grant .....	--		2,250,000		-2,250,000	--	
Joe Skeen Institute for Rangeland Restoration, NM, TX, MT .....	983,000		983,000		--	983,000	
New Era Rural Technology Program .....	750,000		875,000		--	875,000	
Federal Administration (direct approp.)							
REIS .....	2,704,000		2,704,000		--	2,704,000	
Funding for Pay Cost .....	4,973,000		5,576,000		+250,000	5,826,000	
Partial Funding for Office of Extramural Programs .....	440,000		440,000		--	440,000	
Partial Funding for Peer Panels .....	397,000		397,000		--	397,000	

Project	2009 Actual		2010 Estimate		Increase or Decrease	2011 Estimated	
	Amount	Staff Years	Amount	Staff Years		Amount	Staff Years
Compliance with P.L. 106-107 and Govt Paperwork Elimination Act .....	2,136,000	:	2,136,000	:	+3,000,000	5,136,000	:
Other .....	28,776,000	:	33,869,000	:	-33,869,000	--	:
<b>Total Federal Administration .....</b>	<b>39,426,000</b>	:	<b>45,122,000</b>	:	<b>-30,619,000</b>	<b>14,503,000</b>	:
<b>Higher Education:</b>							
Graduate Fellowships Grants.....	3,859,000	:	3,859,000	:	--	3,859,000	:
Institution Challenge Grants .....	5,654,000	:	5,654,000	:	+2,500,000	8,154,000	:
1890 Institution Capacity Building Grants	15,000,000	:	18,250,000	:	--	18,250,000	:
Multicultural Scholars .....	981,000	:	1,241,000	:	--	1,241,000	:
Hispanic Serving Institutions Education Grants Program .....	6,237,000	:	9,237,000	:	--	9,237,000	:
Tribal Colleges Education Equity Grants Program .....	3,342,000	:	3,342,000	:	--	3,342,000	:
Secondary/2-Year Post Secondary .....	983,000	:	983,000	:	+2,500,000	3,483,000	:
Veterinary Medical Services Act .....	2,950,000	:	4,800,000	:	--	4,800,000	:
Alaska Native-serving and Native-serving Institutions .....	3,196,000	:	3,200,000	:	--	3,200,000	:
Resident Instruction Grants for Insular Areas .....	800,000	:	900,000	:	--	900,000	:
Distance Education Grants for Insular Areas .....	--	:	750,000	:		750,000	:
<b>Total Higher Education Grants .....</b>	<b>43,002,000</b>	:	<b>52,216,000</b>	:	<b>+5,000,000</b>	<b>57,216,000</b>	:
<b>Tribal College Endowment Fund:</b>							
Endowment Fund .....	11,880,000	:	11,880,000	:	--	11,880,000	:
Interest Earned .....	3,823,000	:	4,267,000	:	+383,000	4,650,000	:
Hispanic Serving Agricultural Colleges and Universities Endowment Fund .....	--	:	--	:	+10,000,000	10,000,000	:
<b>Total Endowment Fund .....</b>	<b>15,703,000</b>	:	<b>16,147,000</b>	:	<b>+10,383,000</b>	<b>26,530,000</b>	:
<b>Total Available or Estimate .....</b>	<b>706,746,000</b>	<b>210</b>	<b>804,390,000</b>	<b>258</b>	<b>+60,869,000</b>	<b>865,259,000</b>	<b>258</b>
<b>Mandatory:</b>							
Biomass Research and Development .....	20,000,000	:	28,000,000	:	+2,000,000	+30,000,000	:
<b>Total Available or Estimate .....</b>	<b>726,746,000</b>	<b>210</b>	<b>832,390,000</b>	<b>258</b>	<b>+62,869,000</b>	<b>895,259,000</b>	<b>258</b>
<b>Tribal College Endowment Fund:</b>							
Endowment Fund Interest .....	-3,823,000	:	-4,267,000	:	-383,000	-4,650,000	:
<b>Biomass Research and Development .....</b>	<b>-20,000,000</b>	:	<b>-28,000,000</b>	:	<b>-2,000,000</b>	<b>-30,000,000</b>	:
<b>Total Appropriation.....</b>	<b>702,923,000</b>	<b>210</b>	<b>800,123,000</b>	<b>258</b>	<b>60,486,000</b>	<b>860,609,000</b>	<b>258</b>

a/ Does not include \$4,000,000 provided by General Provision 72:

## NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

## RESEARCH AND EDUCATION

## Project Statement by Program

(On basis of Available Funds)

(Includes Carryover Balance)

Project	2009 Actual		2010 Estimate		Increase or Decrease	2011 Estimated	
	Amount	Staff Years	Amount	Staff Years		Amount	Staff Years
<b>Research &amp; Education Activities:</b>							
Hatch Act .....	\$207,075,207		\$215,000,000		--	\$215,000,000	
Cooperative Forestry Research Program .....	27,535,000		29,000,000		--	29,000,000	
Payments to 1890 Colleges and Tuskegee University .....	45,504,000		48,500,000		--	48,500,000	
Animal Health and Disease Research, Section 1433 .....	2,950,000		2,950,000		--	2,950,000	
Special Research Grants							
Other Special Research Grants .....	82,478,000		87,192,000		-87,192,000	--	
Minor Use Animal Drugs .....	429,000		429,000		--	429,000	
National Biological Impact Assessment Program .....	184,000		--		+184,000	184,000	
Global Change, UV-Monitoring .....	1,408,000		1,408,000		--	1,408,000	
Total Special Research Grants .....	84,499,000		89,029,000		-87,008,000	2,021,000	
Improved Pest Control							
Expert IPM Decision Supp. System .....	154,000		156,000		--	156,000	
Integrated Pest Management .....	2,379,000		2,415,000		--	2,415,000	
Minor Crop Pest Mgmt, IR-4 .....	12,000,000		12,180,000		--	12,180,000	
Pest Management Alternatives .....	1,412,000		1,434,000		--	1,434,000	
Total Improved Pest Control .....	15,945,000		16,185,000		--	16,185,000	
Critical Agricultural Materials							
Act of 1984 .....	919,380		1,083,000		--	1,083,000	
Carryover .....	--		1,020,904		-1,020,904	--	
Aquaculture Centers, Section 1475 .....	3,928,000		3,928,000		--	3,928,000	
Sustainable Agriculture .....	14,399,000		14,500,000		+500,000	15,000,000	
1994 Research Program .....	2,314,485		1,805,000		--	1,805,000	
Carryover .....	--		175,317		-175,317	--	
Supplemental and Alternative Crops, Section 1473D .....	819,000		835,000		--	835,000	
Agriculture and Food Research Initiative (formerly NRI) .....	151,404,432		262,482,000		+166,363,000	428,845,000	
Carryover .....	--		159,312,843		-159,312,843	--	
Farm Business Management and Benchmarking Program .....	--		1,500,000		-1,500,000	--	
Sun Grant .....	--		2,250,000		-2,250,000	--	
Joe Skeen Institute for Rangeland Restoration, NM, TX, MT .....	983,000		983,000		--	983,000	
New Era Rural Technology Program .....	750,000		875,000		--	875,000	
Federal Administration (direct approp.)							
REEIS .....	2,525,355		2,704,000		--	2,704,000	
Funding for Pay Cost .....	4,973,000		5,576,000		+250,000	5,826,000	

Project	2009 Actual		2010 Estimate		Increase or Decrease	2011 Estimated	
	Amount	Staff Years	Amount	Staff Years		Amount	Staff Years
Partial Funding for Office of							
Extramural Programs .....	440,000		440,000		--	440,000	
Partial Funding for Peer Panels .....	397,000		397,000		--	397,000	
Compliance with P.L. 106-107 and Govt Paperwork Elimination Act .....	1,995,098		2,136,000		+3,000,000	5,136,000	
Other .....	28,776,000		33,869,000		-33,869,000	--	
Total Federal Administration .....	39,106,453		45,122,000		-30,619,000	14,503,000	
Carryover .....	--		319,547		-319,547	--	
Higher Education:							
Graduate Fellowships Grants.....	1,352,100		3,859,000		--	3,859,000	
Institution Challenge Grants .....	5,654,000		5,654,000		+2,500,000	8,154,000	
1890 Institution Capacity Building Grants	310,320		18,250,000		--	18,250,000	
Multicultural Scholars .....	1,495,213		1,241,000		--	1,241,000	
Hispanic Serving Institutions Education Grants Program .....	6,237,000		9,237,000		--	9,237,000	
Tribal Colleges Education Equity Grants Program .....	3,342,000		3,342,000		--	3,342,000	
Secondary/2-Year Post Secondary .....	983,000		983,000		+2,500,000	3,483,000	
Veterinary Medical Services Act .....	--		4,800,000		--	4,800,000	
Alaska Native-serving and Native-serving Institutions .....	3,196,000		3,200,000		--	3,200,000	
Resident Instruction Grants for Insular Areas .....	800,000		900,000		--	900,000	
Distance Education Grants for Insular Areas .....	--		750,000			750,000	
Total Higher Education Grants .....	23,369,633		52,216,000		+5,000,000	57,216,000	
Carryover .....	--		27,472,399		-27,472,399	--	
Tribal College Endowment Fund:							
Endowment Fund .....	11,880,000		11,880,000		--	11,880,000	
Interest Earned .....	3,823,000		4,267,000		+383,000	4,650,000	
Hispanic Serving Agricultural Colleges and Universities Endowment Fund .....	--		--		+10,000,000	10,000,000	
Total Endowment Fund .....	15,703,000		16,147,000		+10,383,000	26,530,000	
Total Available or Estimate .....	637,204,590	210	992,691,010	258	-127,432,010	865,259,000	258
Unobligated Balance:							
Available, start of year .....	-118,821,186		-188,301,010		+188,301,010	--	
Lapsing .....	30,793		--		--	--	
Available, end of Year .....	188,331,803		--		--	--	
Mandatory:							
Biomass Research and Development .....	20,000,000		28,000,000		+2,000,000	+30,000,000	
Total Available or Estimate .....	726,746,000	210	832,390,000	258	+62,869,000	895,259,000	258
Tribal College Endowment Fund:							
Endowment Fund Interest .....	-3,823,000		-4,267,000		-383,000	-4,650,000	
Biomass Research and Development .....	-20,000,000		-28,000,000		-2,000,000	-30,000,000	
Total Appropriation.....	702,923,000	210	800,123,000	258	60,486,000	860,609,000	

## NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

## Justification of Increases and Decreases

## Research and Education Activities

1. An increase of \$166,363,000 for the Agriculture and Food Research Initiative (AFRI) to utilize competitive research to create solutions for Presidential priorities of major domestic and world food and energy problems (\$262,482,000 available in 2010).

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 other critical issues facing rural communities and American consumers. NIFA is seeking 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. Utilizing AFRI, NIFA will target high priority issues including bioenergy, global climate change, global food security, nutrition and health, and food safety and will award competitive grants for larger, longer projects that create substantial impacts in addressing critical issues facing the long-term viability of agriculture.

**BIOENERGY:** NIFA is requesting an additional \$33,272,600. The requested increase in funding is in support of the President's Agenda to have "a comprehensive plan to invest in alternative and renewable energy." Meeting the Congressional mandate for 36 billion gallons of biofuels by 2022 and the President's goal of 60 billion gallons by 2030 will require a substantial investment in the sustainable production of high-quality, cost-effective feedstocks for biofuel production that do not affect food supply. This priority supports the Department's Strategic Goals of assisting rural communities to create prosperity so they are self-sustaining, repopulating, and economically thriving; and helping America promote agricultural production and biotechnology exports as America works to increase food security. Among other goals, the increased funding will create three new regional centers for biomass production, increasing the numbers of such centers to six (three are to be established in 2010 competition).

**GLOBAL CLIMATE CHANGE:** NIFA is requesting an increase of \$49,908,900. The requested funding is to support critical research on mitigation potentials and adaptive capacities of agricultural and environmental systems.

In a cap and trade system the Department will be expected to provide analysis for the certification of agriculture and forestry offsets. The proposed research will provide vital information needed for an agriculture and forestry cap and trade system.

USDA needs to assist farmers and rural communities in identifying specific regional and crop changes that should be made to crop and farming/production practices so that they may be sustainable in an altered climate. Commodity and non-commodity crops, and animal production will be included.

**GLOBAL FOOD SECURITY:** NIFA is requesting an increase of \$13,309,040 for programs to address pressing issues of global food security: funds will create opportunities for interdepartmental initiatives. NIFA will fund research, education, and extension to help countries at risk to develop appropriate agriculture systems. NIFA will fund targeted research that will have mutual benefits, including expanded efforts on plant and animal diseases that threaten public health and agricultural production such as Foot and Mouth Disease, Rift Valley Fever, and Wheat Stem Rust UG-99. NIFA will partner with the Foreign Agricultural Service, the Agency for International Development, and the State Department to deliver agricultural extension programs to at risk Nations. This supports the Department's Strategic Goal of helping America promote agricultural production and biotechnology exports as America works to increase food security.

**NUTRITION AND HEALTH:** NIFA is requesting an increase of \$49,908,900. Obesity is the number one nutritional problem in America. AFRI projects will focus on: identifying the behavioral factors that influence obesity; developing valid behavioral and environmental instruments for measuring progress in obesity prevention efforts; and, nutrition research that leads to the development and evaluation of effective programs to prevent obesity. AFRI requests for proposals will also address the micro-nutrient content of new cultivars of food crops. An expansion of plant breeding activities will result in genetically mapping and improving the nutritional value of staple crops, fruits, and vegetables through plant breeding. In addition, advanced plant breeding and biotechnology can expand the availability and potentially reduce the cost of nutrient-dense foods, thus expanding access to healthy diets. This priority supports the Department's Strategic Goal of ensuring that all in America have access to safe, nutritious, and balanced meals.

**FOOD SAFETY:** NIFA is requesting an increase of \$19,963,560. NIFA will fund research, education, and extension to improve the safety of the United States 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. This priority supports the Department's Strategic Goal of ensuring that all in America have access to safe, nutritious, and balanced meals.

2. As part of the President's efforts to improve the rural economy through improvements to research and education programs, an increase of \$5,000,000 for Higher Education programs as follows:
  - a. An increase of \$2,500,000 for Secondary Education, Two-Year Postsecondary Education, and Agriculture in the K-12 Classroom (SPECAs) Grants Program (\$983,000 available in 2010) as follows: In support of the President's initiative to make math and science education a national priority at all grade levels, NIFA proposes an increase of \$2,500,000 to improve rural education within the SPECAs program to:
    - (1) Update and revise secondary, 2-year postsecondary, and higher education biological, social, and related curricula, especially at academic institutions serving rural areas, to meet the challenges of preparing graduates for emerging science, technology, engineering and mathematics (STEM) – related employment opportunities critical to revitalizing rural American communities, and to ensure a qualified workforce in the United States;
    - (2) Provide incentives for educators teaching in rural areas to enhance their teaching skills by establishing Rural America Teaching Fellowships that will provide funds for qualified teachers to pursue professional development activities (conferences, workshops, continuing education, etc.) to enhance their classroom delivery skills; and
    - (3) Encourage complementary and synergistic linkages among secondary, 2-year postsecondary, and higher education programs in the food and agricultural sciences in order to enhance research and extension activities that support regional approaches to establishing best practices in STEM curriculum content and delivery methods throughout rural communities.

With SPECAs funds, NIFA will establish a separate 'Sustaining Rural Communities through Education' component within the grants program to focus academic curricula at the K-14 grade levels on improving the economic health and viability of rural communities through developing degree programs emphasizing new and emerging employment opportunities supported by the agriscience and agribusiness disciplines. SPECAs emphasis would be on curricula improvements and faculty expertise.

- b. An increase of \$2,500,000 for the Higher Education Institution Challenge (HEC) Grants (\$5,654,000 available in 2010) as follows:

In support of the President's Agenda item to make math and science education a national priority at all grade levels, NIFA proposes an increase of \$2,500,000 to improve rural education within the HEC program to:

- (1) Update and revise secondary, 2-year postsecondary, and higher education biological, social, and related curricula, especially at academic institutions serving rural areas, to meet the challenges of preparing graduates for emerging science, technology, engineering and mathematics (STEM) – related employment opportunities critical to revitalizing rural American communities, and to ensure the existence in the United States of a qualified workforce;
- (2) Provide incentives for educators teaching in rural areas to enhance their teaching skills by establishing Rural America Teaching Fellowships that will provide funds for qualified teachers to pursue professional development activities (conferences, workshops, continuing education, etc.) to enhance their classroom delivery skills; and
- (3) Encourage complementary and synergistic linkages among secondary, 2-year postsecondary, and higher education programs in the food and agricultural sciences in order to enhance research and extension activities that support regional approaches to establishing best practices in STEM curriculum content and delivery methods throughout rural communities.

Activities will address program goals to increase: the number of graduates with a baccalaureate (or higher) degree in the food and agricultural sciences, and the quality of postsecondary instruction within these disciplines.

3. A net decrease of \$87,008,000 for Special Research Grants (\$89,029,000 available in 2010) as follows:

- a. A decrease of \$87,192,000 for Special Research Grants for earmarked projects (\$87,192,000 available in 2010) as follows:

The Administration strongly believes that peer-reviewed competitive programs that meet national needs are a more effective use of taxpayer dollars than earmarks that are provided to specific recipients. The FY 2011 budget proposes to eliminate these targeted earmarks. Within necessary budget constraints, it is critical that taxpayer dollars be used for the highest quality projects, those that are awarded based on competitive, peer-reviewed process to meet national priorities, rather than through earmarks.

Therefore, some broad aspects of many research topics currently addressed by earmarked projects can be included in the scope of the Agriculture and Food Research Initiative program in FY 2011. Other topics will be addressed under other broader based, competitively-awarded Federal programs supported with non-Federal funds administered by State-level scientific program managers.

- b. An increase of \$184,000 for the National Biological Impact Assessment Program (NBIAP) (no funds available in 2010) as follows:

The public, regulatory agencies, and research community need current and readily-available information about agricultural biotechnology research and product development, biotechnology regulations, and environmental issues associated with small and large-scale releases of genetically modified organisms. NBIAP utilizes the Information Systems for Biotechnology (ISB) as a national resource in agricultural biotechnology information. ISB provides information resources to support the environmentally responsible use of agriculture biotechnology products through searchable databases,

documents and resource lists on the Internet, a monthly News Report, custom software to assist in risk assessment and risk management, and printed publications. Funding will be used to maintain and expand on ISB agricultural biotechnology activities.

4. An increase of \$500,000 for the Sustainable Agriculture Research and Education (SARE) Program (\$14,500,000 available in 2010) as follows:

SARE advances agricultural innovations that improve profitability, environmental stewardship and quality of life, through applied research and extension. Increased funding for SARE will be used to support systems research and farmer/rancher projects that will improve soil quality and carbon sequestration, save energy, and mitigate climate change. Projects are funded through competitive grants offered nationwide by four regions under the direction of councils that include farmers, ranchers, and representatives from universities, government, agribusiness, and nonprofit organizations. This increase is part of an agency-wide initiative that also includes increases for SARE programs in the Extension and Integrated Activities accounts.

5. Reductions in lower priority programs as follows:

- a. A decrease of \$1,500,000 to eliminate funding for Farm Business Management and Benchmarking Program (\$1,500,000 available in 2010) as follows:

A decrease is proposed so funding can be directed to support higher priority activities. Alternative funding from other programs, State and local governments, and private sources could be used to support aspects of this program deemed to be of priority at State and/or local levels.

- b. A decrease of \$2,250,000 to eliminate funding for Sun Grant Program (\$2,250,000 available in 2010) as follows:

A decrease is proposed so funding can be directed to support higher priority activities. Alternative funding from other programs in NIFA, State and local governments, and private sources could be used to support aspects of this program deemed to be of priority at State and/or local levels.

6. A net decrease of \$30,619,000 in Federal Administration activities (\$45,122,000 available in 2010) as follows:

- a. An increase of \$3,000,000 for E-Government (\$2,136,000 available in 2010) as follows:

Because of the increases proposed in this budget, a surge of applications for grants is anticipated, requiring increased efficiency of existing grant making processes and systems. In addition, the breadth of types of grants made under NIFA will increase, requiring the development of new processes and systems. The requested increase in funding will support several critical changes. The new processes and systems will substantially lower the transaction costs of applying for an AFRI or other NIFA competitive grants, and increase proposal receipt and acceptance speeds and accuracy.

With this funding, NIFA will continue building applications that support USDA and external partners. NIFA will expand on pilot activities that would extend its Peer Review System to other agencies in the Department.

- b. A decrease of \$33,869,000 to eliminate earmarked projects (\$33,869,000 available in 2010) as follows:

The Administration strongly believes that peer-reviewed competitive programs that meet national needs are a more effective use of taxpayer dollars than earmarks that are provided to a specific recipient. The FY 2011 budget proposes to eliminate these targeted earmarks.

Some aspects of many research topics currently addressed by earmarked projects can be addressed under broader based, competitively-awarded Federal programs or programs supported with non-Federal funds administered by State-level scientific program managers.

- c. An increase of \$250,000 to fund pay costs (\$5,576,000 available in 2010) as follows:

The NIFA budget consists of numerous programs that award thousands of individual grants to colleges and universities and other eligible recipients. These programs are managed at the national level by a staff of about 371 full time employees at the end of FY 2009 and with a number of temporary and intermittent employees. Grants management includes developing program regulations, establishing broad program goals, reviewing proposals, preparing grant documentation, post-award review of progress, and similar activities necessary to achieve program goals. Between 3 and 4 percent of funds provided for programs may be used to support administration of the programs as established by law.

7. A net increase \$10,383,000 in other Higher Education programs including the Native American Institutions Endowment Fund Interest (\$4,267,000 available in 2010) as follows:

- a. An increase of \$10,000,000 to establish the Hispanic-Serving Agricultural Colleges and Universities Endowment Fund (no funds available in 2010) as follows:

Section 7129 of the Food, Conservation, and Energy Act of 2008, provides for the establishment of an endowment fund for Hispanic-Serving Agricultural Colleges and Universities (HSACU). The Hispanic/Latino community is the fastest growing sector of the American population. This investment in the Hispanic-Serving Agricultural Colleges and Universities is needed to ensure the institutions can effectively compete for NIFA competitive grants.

This endowment fund for HSACU's will assist in the development of a skilled and marketable student population for employment in the food and agriculture sector from the HSACU.

- b. An increase of \$383,000 for estimated interest earned on the Tribal Colleges Endowment Fund (\$4,267,000 available in 2010) to support activities under this endowment fund.

## SMALL BUSINESS INNOVATION RESEARCH PROGRAM

The Small Business Innovation Development Act (SBIR), Public Law 97-219, July 22, 1982, as amended by Public Law 99-443, October 6, 1986, was designed to strengthen the role of small, innovative firms in Federally funded research and development. Under this program, small firms receive at least a fixed minimum percentage of research and development awards made by Federal agencies with sizable research and development budgets. The Small Business Research and Development Enhancement Act of 1992 (Public Law 102-564, October 28, 1991) as amended mandates that 2.5 percent of all extramural research and development funds within the Department are set-aside and used to fund the SBIR program.

<u>Agency</u>	<u>FY 2009 Actual</u>	<u>FY 2010 Estimate</u>	<u>FY 2011 Estimate</u>
Agricultural Research Service .....	\$ 1,870,000	\$ 1,828,000	\$ 1,446,457
Animal and Plant Health Inspection Service .....	59,163	67,465	64,340
National Institute of Food and Agriculture Economic Research Service .....	17,033,247	18,044,791	18,848,819
Forest Service .....	37,500	12,500	12,500
National Agricultural Statistics Service ...	707,328	707,325	707,325
FAS/International Cooperative Development .....	0	14,220	9,543
	<u>6,950</u>	<u>6,950</u>	<u>6,950</u> □
Total .....	\$19,714,188	\$20,681,251	\$21,095,934

The staff functions of USDA's SBIR program (solicitation, review and evaluation of proposals) have been centralized in NIFA in order to serve the SBIR community most effectively and efficiently. Eleven research topic areas have been established:

1. Forests and Related Resources. Research proposals are solicited to develop environmentally sound techniques to increase productivity of forest land and to increase the utilization of materials and resources from forest lands.
2. Plant Production and Protection. Research proposals are solicited to examine means of enhancing crop production by reducing the impact of destructive agents, developing effective crop systems that are economically and environmentally sound, enhancing the impact of new methods of plant manipulation, and developing new crop plants and new uses for existing crops.
3. Animal Production and Protection. Research proposals are solicited to find ways to enable producers of food animals to increase production efficiency and to assure a reliable and safe supply of animal protein and other animal products while conserving resources and reducing production costs.
4. Soil and Water Resources. Research proposals are solicited to develop technologies for conserving air, water and soil resources while sustaining agricultural productivity.

5. Food Science and Nutrition. Research proposals are solicited to develop new knowledge and a better understanding of the characteristics of foods and their nutritional impact; to apply new knowledge to improve our foods and diets; and to apply new knowledge to the production of useful new food products, processes, materials, and systems, including the application of nutritional information to consumer foods and food service systems.

6. Rural Development. Research proposals are solicited to develop knowledge and technology that will promote, foster, or improve the well-being of rural Americans.

7. Aquaculture. Research proposals are solicited to enhance the knowledge and technology base necessary for the continued growth of the domestic aquaculture industry as a form of production agriculture. Emphasis is placed on research leading to improved production efficiency and increased competitiveness of private sector aquaculture in the United States.

8. Biofuels and Biobased Products. Research proposals are solicited to develop new or improved technologies that will lead to increased production of industrial products from agricultural materials.

9. Marketing and Trade. Research proposals are solicited to develop innovative marketing strategies to increase sales of agricultural, forestry, and agricultural products both in the United States and abroad.

10. Animal Manure Management. Research proposals are solicited to develop new or improved technologies based on economically and environmentally sound approaches for improved management of animal manures.

11. Small and Mid-Size Farms. Research proposals are solicited that will promote and improve the sustainability and profitability of small and mid-sized farms and ranches.

**TABLE 1 - FISCAL YEAR 2009  
DISTRIBUTION OF FEDERAL PAYMENTS FOR RESEARCH AT STATE AGRIC EXPERIMENT STATIONS & OTHER STATE INSTITUTIONS**

<u>HATCH ACT AS AMENDED</u>												
<u>STATE</u>	<u>HATCH FORMULA</u>	<u>REGIONAL RESEARCH</u>	<u>TOTAL</u>	<u>COOP FORESTRY RSH (MS)</u>	<u>1890 UNIV &amp; TUSK UNIV (EA)</u>	<u>ANIMAL HEALTH &amp; DIS RSCH</u>	<u>SPECIAL AND OTHER GRANTS</u>	<u>COMPETITIVE RESEARCH GRANTS</u>	<u>HIGHER EDUCATION GRANTS</u>	<u>FED ADMIN DIRECT APPROP</u>	<u>BIOTECH RISK ASSESS</u>	<u>TOTAL FEDERAL FUNDS</u>
ALABAMA	3,399,158	1,003,272	4,402,430	915,296	4,675,187	63,591	2,405,301	1,660,547	189,908	388,440	200,000	14,900,700
ALASKA	928,376	161,266	1,089,642	658,290	0	449	605,962	70,529	1,588,795	0	0	4,013,667
AMER SAMOA	772,035	24,482	796,517	41,474	0	0	0	440,000	0	0	0	1,277,991
ARIZONA	1,300,374	852,684	2,153,058	486,952		30,525	746,046	2,797,399	599,480	0	0	6,813,460
ARKANSAS	2,903,695	822,306	3,726,001	761,092	2,026,177	57,251	1,727,912	1,845,634	0	0	0	10,144,067
CALIFORNIA	4,001,607	1,786,491	5,788,098	812,493	0	275,951	6,815,364	11,432,067	2,393,661	648,648	0	28,166,282
COLORADO	1,804,224	1,144,185	2,948,409	418,417	0	169,160	2,145,090	5,205,887	131,699	0	0	11,018,662
CONNECTICUT	1,412,669	558,387	1,971,056	229,945	0	15,738	373,847	1,119,618	164,000	276,120	0	4,150,324
DELAWARE	996,733	417,697	1,414,430	92,876	1,151,031	9,863	152,895	688,858	79,822	0	0	3,589,775
DISTRICT OF COLUMBIA	648,745	120,592	769,337	0	0	0	0	20,000	0	0	0	789,337
FLORIDA	2,561,969	745,873	3,307,842	709,690	1,846,034	46,332	6,018,242	3,352,799	1,025,088	2,554,344	0	18,860,371
GEORGIA	3,857,971	1,451,191	5,309,162	932,431	2,687,059	79,017	4,264,048	5,670,646	968,610	0	0	19,910,973
GUAM	805,894	138,084	943,978	41,474	0	0	510,165	100,000	760,748	0	0	2,356,365
HAWAII	980,622	432,389	1,413,011	178,544	0	2,938	3,706,783	485,107	1,528,630	2,444,204	0	9,759,217
IDAHO	1,666,050	672,270	2,338,320	538,353	0	38,347	1,915,417	1,102,199	46,954	0	0	5,979,590
ILLINOIS	4,831,939	1,193,504	6,025,443	384,149	0	63,827	2,273,187	7,855,856	46,948	0	0	16,649,410
INDIANA	4,522,401	963,745	5,486,146	435,551	0	39,933	1,198,586	5,219,575	32,868	0	0	12,412,659
IOWA	4,741,382	1,921,503	6,662,885	332,748	0	98,549	3,488,457	3,717,670	257,047	1,004,328	244,411	15,806,095
KANSAS	2,879,048	886,041	3,765,089	247,079	0	84,470	1,923,046	5,343,756	781,142	1,201,824	0	13,346,406
KENTUCKY	4,536,974	1,004,588	5,541,562	555,487	3,195,446	42,107	1,604,466	1,174,883	0	0	0	12,113,951
LOUISIANA	2,654,842	776,181	3,431,023	778,226	1,809,963	31,364	1,674,433	1,860,256	0	0	0	9,585,265
MAINE	1,454,259	581,980	2,036,239	726,825	0	5,467	1,011,213	409,619	0	0	0	4,189,363
MARYLAND	1,946,253	732,280	2,678,533	281,346	1,361,341	18,748	2,187,322	5,113,419	30,586	438,984	302,937	12,413,216
MASSACHUSETTS	1,661,924	714,805	2,376,729	298,481	0	36,431	236,578	5,254,197	234,000	0	0	8,436,416
MICHIGAN	4,538,185	1,103,771	5,641,956	795,360	0	58,504	5,078,074	7,333,363	579,233	875,160	0	20,361,650
MICRONESIA	827,357	0	827,357	0	0	0	0	0	0	0	0	827,357
MINNESOTA	4,461,933	1,011,294	5,473,227	624,022	0	138,502	4,517,658	5,102,521	456,847	0	0	16,312,777
MISSISSIPPI	3,382,368	948,814	4,331,182	881,028	2,255,140	51,002	3,064,319	1,765,495	0	2,216,788	0	14,564,954
MISSOURI	4,353,688	903,439	5,257,127	572,621	3,132,177	89,495	4,232,165	693,119	491,211	394,992	0	14,862,907
MONTANA	1,589,725	752,901	2,342,626	504,086	0	35,680	2,422,539	2,645,689	1,529,005	0	0	9,479,625
NEBRASKA	2,672,591	1,025,211	3,697,802	281,346	0	89,783	1,001,277	1,731,794	800,327	0	0	7,602,329
NEVADA	923,735	412,233	1,335,968	144,276	0	4,559	677,773	48,025	0	0	0	2,210,601
NEW HAMPSHIRE	1,177,814	418,569	1,596,383	401,283	0	3,099	0	717,996	0	0	0	2,718,761
NEW JERSEY	1,645,750	1,327,064	2,972,814	212,812	0	8,218	3,340,288	3,954,820	287,707	0	0	10,776,659
NEW MEXICO	1,334,214	453,555	1,787,769	367,015	0	21,568	1,318,162	375,088	1,869,381	0	0	5,738,983
NEW YORK	4,251,072	1,761,557	6,012,629	726,825	0	105,942	5,399,803	5,446,340	61,537	0	0	17,753,076
NORTH CAROLINA	5,660,813	1,345,472	7,006,285	898,161	3,726,534	110,863	1,425,511	2,966,973	344,000	205,920	0	16,684,247
NORTH DAKOTA	1,918,433	680,767	2,599,200	127,143	0	20,412	1,634,117	1,897,882	1,155,679	0	0	7,434,433
NORTHERN MARIANAS	761,357	0	761,357	0	0	0	0	0	0	0	0	761,357
OHIO	5,426,669	1,095,955	6,522,624	452,684	0	42,930	777,645	2,517,654	506,839	4,189,536	0	15,009,912
OKLAHOMA	2,788,170	674,713	3,462,883	469,818	2,038,611	70,903	1,673,456	1,321,006	76,765	256,464	0	9,369,906
OREGON	2,131,124	1,066,359	3,197,483	863,895	0	35,762	2,179,762	4,129,121	166,908	0	0	10,572,931
PENNSYLVANIA	5,233,027	1,417,092	6,650,119	606,888	0	117,486	2,775,418	5,639,884	794,601	442,728	0	17,027,124

**TABLE 1 - FISCAL YEAR 2009  
DISTRIBUTION OF FEDERAL PAYMENTS FOR RESEARCH AT STATE AGRIC EXPERIMENT STATIONS & OTHER STATE INSTITUTIONS**

STATE	<u>HATCH ACT AS AMENDED</u>											
	<u>HATCH FORMULA</u>	<u>REGIONAL RESEARCH</u>	<u>TOTAL</u>	<u>COOP FORESTRY RSH (MS)</u>	<u>1890 UNIV &amp; TUSK UNIV (EA)</u>	<u>ANIMAL HEALTH &amp; DIS RSCH</u>	<u>SPECIAL AND OTHER GRANTS</u>	<u>COMPETITIVE RESEARCH GRANTS</u>	<u>HIGHER EDUCATION GRANTS</u>	<u>FED ADMIN DIRECT APPROP</u>	<u>BIOTECH RISK ASSESS</u>	<u>TOTAL FEDERAL FUNDS</u>
PUERTO RICO	3,252,792	835,482	4,088,274	110,009	0	6,353	785,648	0	0	0	0	4,990,284
RHODE ISLAND	906,466	433,425	1,339,891	75,741	0	1,657	701,130	810,128	0	491,400	0	3,419,947
SOUTH CAROLINA	2,935,853	774,866	3,710,719	692,557	2,012,573	14,449	335,742	691,986	140,760	438,984	0	8,037,770
SOUTH DAKOTA	2,027,371	686,567	2,713,938	161,410	0	34,029	1,028,313	2,232,993	911,657	0	0	7,082,340
TENNESSEE	4,273,872	960,674	5,234,546	675,423	2,924,127	32,695	1,072,112	1,680,425	0	219,960	29,244	11,868,532
TEXAS	5,892,597	1,366,556	7,259,153	829,627	4,265,898	199,288	5,041,658	5,562,206	3,189,510	4,757,688	0	31,105,028
UTAH	1,161,481	842,089	2,003,570	315,614	0	18,407	6,260,220	1,727,980	25,752	588,744	0	10,940,287
VERMONT	1,229,276	367,016	1,596,292	349,882	0	5,772	3,894,647	731,950	258,104	0	0	6,836,647
VIRGIN ISLANDS	785,784	134,415	920,199	58,607	0	0	119,866	0	0	0	0	1,098,672
VIRGINIA	3,650,566	878,971	4,529,537	743,959	2,499,632	35,362	1,871,100	4,638,174	766,957	469,872	0	15,554,593
WASHINGTON	2,363,646	1,525,712	3,889,358	846,761	0	78,774	4,349,393	2,349,408	311,215	250,848	0	12,075,757
WEST VIRGINIA	2,260,931	609,941	2,870,872	521,220	1,319,240	5,104	922,011	430,000	0	884,520	0	6,952,967
WISCONSIN	4,481,353	1,112,586	5,593,939	641,156	0	61,785	918,032	2,196,689	430,193	1,317,888	0	11,159,682
WYOMING	1,100,721	600,709	1,701,430	195,678	0	17,159	244,818	525,000	0	0	0	2,684,085
OTHER	0	314,811	314,811	0	47,018	0	36,018	2,000,000	143,882	0	0	2,541,729
SBIR	3,821,440	1,206,771	5,028,211	667,724	1,103,472	70,800	2,525,136	580,750	120,000	666,576	0	10,762,669
REIMBURSABLE	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL ADMIN	4,512,159	1,434,617	5,946,776	826,050	1,365,120	118,000	4,208,560	4,265,880	896,157	11,481,493	0	29,108,036
SUBTOTAL	157,003,477	49,589,770	206,593,247	27,497,900	45,441,780	2,914,400	122,816,731	150,650,860	27,174,213	39,106,453	776,592	622,972,176
UNOBLIG BAL	30,793	0	30,793	0	0	0	1,196,221	159,312,843	27,472,399	319,547	0	188,331,803
SUBTOTAL	157,034,270	49,589,770	206,624,040	27,497,900	45,441,780	2,914,400	124,012,952	309,963,703	54,646,612	39,426,000	776,592	811,303,979
TRIBAL ENDOW	0	0	0	0	0	0	0	0	11,880,000	0	0	11,880,000
BIOTECH RISK ASSESSMENT	366,290	115,670	481,960	37,100	62,220	35,600	560,980	753,572	18,420	0	(776,592)	
TOTAL	157,400,560	49,705,440	207,106,000	27,535,000	45,504,000	2,950,000	124,573,932	310,717,275	66,545,032	39,426,000	0	823,183,979

**TABLE 2 - FISCAL YEAR 2010  
DISTRIBUTION OF FEDERAL PAYMENTS FOR RESEARCH AT STATE AGRIC EXPERIMENT STATIONS & OTHER STATE INSTITUTIONS**

<u>STATE</u>	<u>HATCH ACT</u>	<u>COOP FORESTRY RSH (MS)</u>	<u>1890 UNIV &amp; TUSK UNIV (EA)</u>	<u>ANIMAL HEALTH &amp; DIS RSCH</u>	<u>SPECIAL AND OTHER GRANTS</u>	<u>COMPETITIVE RESEARCH GRANTS</u>	<u>HIGHER EDUCATION GRANTS</u>	<u>FED ADMIN DIRECT APPROP</u>	<u>BIOTECH RISK ASSESS</u>	<u>TOTAL FEDERAL FUNDS</u>
FEDERAL ADMIN	6,214,389	870,000	1,455,000	118,000	5,318,920	7,704,437	528,562	12,607,760	0	34,817,068
SUBTOTAL, OBLIGATIONS	6,214,389	870,000	1,455,000	118,000	5,318,920	7,704,437	528,562	12,607,760	0	34,817,068
UNOBLIGATED BALANCE	208,785,611	28,130,000	47,045,000	2,832,000	128,850,301	414,090,406	95,306,837	32,833,787	0	957,873,942
TOTAL	215,000,000	29,000,000	48,500,000	2,950,000	134,169,221	421,794,843	95,835,399	45,441,547	0	992,691,010

**TABLE 3 - FISCAL YEAR 2011  
DISTRIBUTION OF FEDERAL PAYMENTS FOR RESEARCH AT STATE AGRIC EXPERIMENT STATIONS & OTHER STATE INSTITUTIONS**

<u>STATE</u>	<u>HATCH ACT</u>	<u>COOP FORESTRY RSH (MS)</u>	<u>1890 UNIV &amp; TUSK UNIV (EA)</u>	<u>ANIMAL HEALTH &amp; DIS RSCH</u>	<u>SPECIAL AND OTHER GRANTS</u>	<u>COMPETITIVE RESEARCH GRANTS</u>	<u>HIGHER EDUCATION GRANTS</u>	<u>FED ADMIN DIRECT APPROP</u>	<u>BIOTECH RISK ASSESS</u>	<u>TOTAL FEDERAL FUNDS</u>
FEDERAL ADMIN	6,214,389	870,000	1,455,000	118,000	1,708,600	17,153,800	3,028,960	14,503,000	0	45,051,749
SUBTOTAL, OBLIGATIONS	6,214,389	870,000	1,455,000	118,000	1,708,600	17,153,800	3,028,960	14,503,000	0	45,051,749
UNOBLIGATED BALANCE	208,785,611	28,130,000	47,045,000	2,832,000	41,006,400	411,691,200	80,717,040	0	0	820,207,251
TOTAL	215,000,000	29,000,000	48,500,000	2,950,000	42,715,000	428,845,000	83,746,000	14,503,000	0	865,259,000

## NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

CLASSIFICATION BY OBJECTS  
Research and Education Activities  
2009 Actuals and Estimated 2010 and 2011

Personnel Compensation:	<u>2009</u>	<u>2010</u>	<u>2011</u>
Washington, D.C. ....	\$9,222,489	\$9,451,979	\$9,644,479
Field .....	0	0	0
<hr/>			
11 Total personnel compensation .....	9,222,489	9,451,979	9,644,479
12 Personnel benefits .....	2,812,023	2,823,319	2,880,819
13 Benefits for former personnel .....	4,801	4,801	4,801
Total pers. comp. & benefits .....	12,039,313	12,280,099	12,530,099
<b>Other Objects:</b>			
21 Travel .....	1,001,488	1,012,504	1,023,642
22 Transportation of Things .....	5,275	5,333	5,392
23.1 Rent to GSA.....	6,997	7,074	7,152
23.2 Rent Paid to others .....	38,483	38,906	39,334
23.3 Communications, Utilities, etc. ....	304,362	307,710	311,095
24 Printing and Reproduction .....	140,867	142,417	143,983
25.1 Advisory & assist. Services .....	137,577	139,090	140,620
25.2 Other Services .....	2,507,689	2,510,274	2,537,887
25.3 Purchases of G&S from Govt. ....	39,310	39,742	40,180
25.4 Operation and Maintenance of facilities .....	492,545	493,463	498,891
25.5 Research and Development Contracts .....	2,529,036	2,536,855	2,564,761
25.6 ADP Services and Supplies (NFC) .....	16,369	16,549	16,731
25.7 Operation and maintenance of equipment .....	51,439	52,005	52,577
25.8 Subsistence and support of persons .....	37,914	38,331	38,753
26 Supplies .....	132,606	133,065	134,528
31 Equipment .....	165,419	167,239	169,078
41 Grants, Contracts, etc. ....	604,833,427	963,502,000	823,124,297
43 Interest Prompt Payment .....	2,030	0	0
Total, other objects .....	612,442,833	971,142,557	830,848,901
<hr/>			
Total Obligations .....	624,482,146	983,422,656	843,379,000
<b>Position Data:</b>			
Average Salary, ES .....	\$166,107	\$169,429	\$172,987
Average Salary, GS .....	\$92,868	\$94,726	\$96,715
Average Grade, GS .....	11.8	11.8	11.8

## NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

CLASSIFICATION BY OBJECTS  
Biomass Research and Development Activities  
2009 Actuals and Estimated 2010 and 2011

Personnel Compensation:	<u>2009</u>	<u>2010</u>	<u>2011</u>
Washington, D.C. ....	\$387,554	\$391,817	\$397,302
Field .....	0	0	0
	<hr/>		
11 Total personnel compensation .....	387,554	391,817	397,302
12 Personnel benefits .....	106,609	107,782	109,291
13 Benefits for former personnel .....	182	184	187
Total pers. comp. & benefits .....	494,345	499,783	506,780
<b>Other Objects:</b>			
21 Travel .....	39,864	40,303	40,867
22 Transportation of Things .....	200	202	205
23.1 Rent to GSA .....	265	268	272
23.2 Rent Paid to others .....	1,459	1,475	1,496
23.3 Communications, Utilities, etc. ....	11,539	11,666	11,829
24 Printing and Reproduction .....	5,341	5,400	5,475
25.1 Advisory & assist. Services .....	6,548	6,620	6,713
25.2 Other Services .....	95,071	96,117	97,462
25.3 Purchases of G&S from Govt. ....	1,490	1,506	1,527
25.4 Operation and Maintenance of facilities .....	7,290	7,370	7,473
25.5 Research and Development Contracts .....	127,348	128,749	130,551
25.6 ADP Services and Supplies (NFC) .....	621	628	637
25.7 Operation and maintenance of equipment ...	1,950	1,971	1,999
25.8 Subsistence and support of persons .....	1,437	1,453	1,473
26 Supplies .....	8,818	8,915	9,040
31 Equipment .....	6,271	6,340	6,429
41 Grants, Contracts, etc. ....	18,903,443	29,181,234	29,169,772
43 Interest Prompt Payment .....	77	0	0
Total, other objects .....	19,219,032	29,500,217	29,493,220
	<hr/>		
Total Obligations .....	19,713,377	30,000,000	30,000,000
<b>Position Data:</b>			
Average Salary, ES .....	\$166,107	\$169,429	\$172,987
Average Salary, GS .....	\$92,868	\$94,726	\$96,715
Average Grade, GS .....	11.8	11.8	11.8

## NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets).

Extension Activities

For payments to States, the District of Columbia, Puerto Rico, Guam, the Virgin Islands, Micronesia, the Northern Marianas, and American Samoa, [\$494,923,000, of which \$11,831,000 shall be for the purposes, and in the amounts, specified in the table titled "Congressionally Designated Projects" in the statement of managers to accompany this Act]\$479,203,000, as follows: payments for cooperative extension work under the Smith-Lever Act, to be distributed under sections 3(b) and 3(c) of said Act, and under section 208(c) of Public Law 93-471, for retirement and employees' compensation costs for extension agents, \$297,500,000; payments for extension work at the 1994 Institutions under the Smith-Lever Act (7 U.S.C. 343(b)(3)), [\$4,321,000]\$5,321,000; payments for the nutrition and family education program for low-income areas under section 3(d) of the Act, \$68,070,000; payments for the pest management program under section 3(d) of the Act, \$9,938,000; [payments for the farm safety program under section 3(d) of the Act, \$4,863,000;] payments for New Technologies for Ag Extension under section 3(d) of the Act, \$1,750,000; payments to upgrade research, extension, and teaching facilities at institutions eligible to receive funds under 7 U.S.C. 3221 and 3222, \$19,770,000, to remain available until expended; payments for youth-at-risk programs under section 3(d) of the Smith-Lever Act, \$8,412,000; for youth farm safety education and certification extension grants, to be awarded competitively under section 3(d) of the Act, \$486,000; payments for carrying out the provisions of the Renewable Resources Extension Act of 1978 (16 U.S.C. 1671 et seq.), \$4,068,000; payments for the federally-recognized Tribes Extension Program under section 3(d) of the Smith-Lever Act, [\$3,045,000]\$5,300,000; payments for sustainable agriculture programs under section 3(d) of the Act, [\$4,705,000]\$4,968,000; payments for rural health and safety education as authorized by section 502(i) of Public Law 92-419 (7 U.S.C. 2662(i)), \$1,738,000; payments for cooperative extension work by eligible institutions (7 U.S.C. 3221), \$42,677,000, provided that each institution receives no less than

3 \$1,000,000; [for grants to youth organizations pursuant to 7 U.S.C. 7630, \$1,784,000; payments to carry out the food animal residue avoidance database program as authorized by 7 U.S.C. 7642, \$1,000,000;] payments to carry out section 1672(e)(49) of the Food, Agriculture, Conservation, and Trade Act of 1990 (7 U.S.C. 5925), as amended, \$400,000; and for necessary expenses of Extension Activities, [\$20,396,000]\$8,805,000. (*Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2010.*)

Explanation of Changes

The first change deletes the language for Congressionally-designated Projects described in Section 4 of the explanatory statement of the consolidated appropriations Act. The budget does not include funding for these grants.

The second change deletes the language for the farm safety program under section 3(d) of the Smith-Lever Act. The budget does not include funding for this program.

The third change deletes the language for grants to youth organizations pursuant to 7 U.S.C. 7630 and food animal residue avoidance database program as authorized by 7 U.S.C. 7642. The budget does not include funding for these programs.

## NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

Lead-Off tabular StatementEXTENSION ACTIVITIES

Appropriation Act, 2010.....	\$494,923,000
Budget Estimate, 2011 .....	<u>479,203,000</u>
Decrease in Appropriation .....	<u>-15,720,000</u>

Summary of Increases and Decreases

(On basis of appropriation)

<u>Item of Change</u>	<u>2010 Estimated</u>	<u>Pay Costs</u>	<u>Program Changes</u>	<u>2011 Estimated</u>
<b>Extension Activities:</b>				
Smith-Lever 3 (d):				
Expanded Food and Nutrition Education				
Farm Safety.....	\$4,863,000	--	-\$4,863,000	-
Sustainable Agriculture .....	4,705,000	--	+263,000	\$4,968,000
Federally-Recognized Tribes Extension Program .....	3,045,000	--	+2,255,000	5,300,000
Other Extension Programs:				
Extension Services at the 1994 Institutions .....	4,321,000	--	+1,000,000	5,321,000
Grants To Youth Serving Institutions.....	1,784,000	--	-1,784,000	-
Food Animal Residue Avoidance Database.....	1,000,000	--	-1,000,000	-
Federal Administration (direct approp.):				
General Admin. including pay cost .....	8,012,000	+\$240,000	--	8,252,000
Other.....	12,384,000	--	-11,831,000	553,000
All Other .....	454,809,000	--	--	454,809,000
<b>Subtotal , Extension</b>				
<b>Activities .....</b>	<b>494,923,000</b>	<b>+240,000</b>	<b>-15,960,000</b>	<b>479,203,000</b>
<b>Mandatory Programs:</b>				
Healthy Urban Food Enterprise				
Development Center.....	1,000,000	--	--	1,000,000
Beginning Farmer and Rancher Program.....	19,000,000	--	--	19,000,000
Biodiesel Eductaion.....	1,000,000	--	--	1,000,000
Risk Management Education.....	5,000,000	--	--	5,000,000
<b>Subtotal Mandatory Programs.....</b>	<b>26,000,000</b>	<b>--</b>	<b>--</b>	<b>26,000,000</b>
<b>Subtotal , Extension</b>				
<b>Activities .....</b>	<b>520,923,000</b>		<b>-15,960,000</b>	<b>505,203,000</b>

NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

EXTENSION ACTIVITIES

Project Statement by Program  
(On basis of Appropriation)

Project	2009 Actual		2010 Estimated		Increase or Decrease	2011 Estimated	
	Amount	Staff Years	Amount	Staff Years		Amount	Staff Years
<b>Extension Activities:</b>							
Smith-Lever Act, Section 3b&c .....	\$288,548,000		\$297,500,000		--	\$297,500,000	
1890 Colleges and Tuskegee University .....	40,150,000		42,677,000		--	42,677,000	
Smith-Lever, Section 3d Programs:							
EFNEP .....	66,155,000		68,070,000		--	68,070,000	
Farm Safety .....	4,863,000		4,863,000		-\$4,863,000	--	
New Technologies for Ag Extension .....	1,500,000		1,750,000		--	1,750,000	
Pest Management .....	9,791,000		9,938,000		--	9,938,000	
Children, Youth, and Families at Risk .....	8,182,000		8,412,000		--	8,412,000	
Youth Farm Safety Education and Certification .....	479,000		486,000		--	486,000	
Federally-Recognized Tribes .....	3,000,000		3,045,000		+2,255,000	5,300,000	
Sustainable Agriculture .....	4,568,000		4,705,000		+263,000	4,968,000	
Total Section 3d Programs .....	98,538,000		101,269,000		-2,345,000	98,924,000	
Rural Health and Safety Education .....	1,738,000		1,738,000		--	1,738,000	
1890 Facilities (Sec. 1447) .....	18,000,000		19,770,000		--	19,770,000	
Grants to Youth Serving Organizations .....	1,767,000		1,784,000		-1,784,000	--	
Renewable Resources Extension Act (RREA) .....	4,008,000		4,068,000		--	4,068,000	
Extension Services at the 1994 Institutions .....	3,321,000		4,321,000		+1,000,000	5,321,000	
Food Animal Residue Avoidance Database (FARAD) .....	806,000		1,000,000		-1,000,000	--	
Women and Minorities in STEM fields.....	--		400,000		--	400,000	
Federal Administration (direct approp.):							
Ag in the Classroom .....	553,000		553,000		--	553,000	
General Admin. including pay cost .....	7,433,000		8,012,000		+240,000	8,252,000	
Other .....	9,388,000		11,831,000		-11,831,000	--	
Total Federal Administration .....	17,374,000		20,396,000		-11,591,000	8,805,000	
Total Available or Estimate .....	474,250,000	156	494,923,000	172	15,720,000	479,203,000	172

Project	2009 Actual		2010 Estimated		2011 Estimated		
	Amount	Years	Amount	Years	Increase or Decrease	Amount	Staff
<u>Mandatory Activities:</u>							
Beginning Farmers and Ranchers Program .....	18,000,000	:	19,000,000	:	--	19,000,000	:
	:	:	:	:	:	:	:
Biodiesel Fuel Education Program.....	1,000,000	:	1,000,000	:	--	1,000,000	:
	:	:	:	:	:	:	:
Healthy Urban Food Enterprise Development Center .....	1,000,000	:	1,000,000	:	--	1,000,000	:
	:	:	:	:	:	:	:
Risk Management Education .....	5,000,000	:	5,000,000	:	--	5,000,000	:
	:	:	:	:	:	:	:
Total Available or Estimate .....	499,250,000	156	520,923,000	172	15,720,000	505,203,000	172
	:	:	:	:	:	:	:
<u>Mandatory Activities:</u>							
Beginning Farmers and Ranchers Program .....	-18,000,000	:	-19,000,000	:	--	-19,000,000	:
	:	:	:	:	:	:	:
Biodiesel Fuel Education Program.....	-1,000,000	:	-1,000,000	:	--	-1,000,000	:
	:	:	:	:	:	:	:
Healthy Urban Food Enterprise Development Center .....	-1,000,000	:	-1,000,000	:	--	-1,000,000	:
	:	:	:	:	:	:	:
Risk Management Education .....	-5,000,000	:	-5,000,000	:	--	-5,000,000	:
	:	:	:	:	:	:	:
Total, Appropriation .....	474,250,000	156	494,923,000	172	15,720,000	479,203,000	172

NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

EXTENSION ACTIVITIES

Project Statement by Program

(On basis of Available Funds)

Project	2009 Actual		2010 Estimated		Increase or Decrease	2011 Estimated	
	Amount	Staff Years	Amount	Staff Years		Amount	Staff Years
<b>Extension Activities:</b>							
Smith-Lever Act, Section 3b&c	\$288,482,386		\$297,500,000		--	\$297,500,000	
1890 Colleges and Tuskegee University	40,150,000		42,677,000		--	42,677,000	
Smith-Lever, Section 3d Programs:							
EFNEP	66,155,000		68,070,000		--	68,070,000	
Farm Safety	4,863,000		4,863,000		-\$4,863,000	--	
New Technologies for Ag Extension	1,500,000		1,750,000		--	1,750,000	
Pest Management	9,791,000		9,938,000		--	9,938,000	
Children, Youth, and Families at Risk	8,182,000		8,412,000		--	8,412,000	
Youth Farm Safety Education and Certification	479,000		486,000		--	486,000	
Federally-Recognized Tribes	3,000,000		3,045,000		+2,255,000	5,300,000	
Sustainable Agriculture	4,568,000		4,705,000		+263,000	4,968,000	
Total Section 3d Programs	98,538,000		101,269,000		-2,345,000	98,924,000	
Rural Health and Safety Education	1,738,000		1,738,000		--	1,738,000	
1890 Facilities (Sec. 1447)	18,000,000		19,770,000		--	19,770,000	
Grants to Youth Serving Organizations	1,767,000		1,784,000		-1,784,000	--	
Renewable Resources Extension Act (RREA)	4,008,000		4,068,000		--	4,068,000	
Extension Services at the 1994 Institutions	3,321,000		4,321,000		+1,000,000	5,321,000	
Food Animal Residue Avoidance Database (FARAD)	806,000		1,000,000		-1,000,000	--	
Women and Minorities in STEM fields	--		400,000			400,000	
Federal Administration (direct approp.):							
Ag in the Classroom	553,000		553,000		--	553,000	
General Admin. including pay cost	7,433,000		8,012,000		+240,000	8,252,000	
Other	9,388,000		11,831,000		-11,831,000	--	
Total Federal Administration	17,374,000		20,396,000		-11,591,000	8,805,000	
Total Available or Estimate	474,184,386	156	494,923,000	172	15,720,000	479,203,000	172

Project	2009 Actual		2010 Estimated		2011 Estimated		
	Amount	Years	Amount	Years	Increase or Decrease	Amount	Staff
<b>Mandatory Activities:</b>							
Beginning Farmers and Ranchers Program .....	18,000,000	:	19,000,000	:	--	19,000,000	:
Biodiesel Fuel Education Program.....	1,000,000	:	1,000,000	:	--	1,000,000	:
Healthy Urban Food Enterprise Development Center .....	1,000,000	:	1,000,000	:	--	1,000,000	:
Risk Management Education .....	191,848	:	5,000,000	:	--	5,000,000	:
Carryover.....		:	4,808,152	:			:
<b>Total Obligations Estimate .....</b>	<b>494,376,234</b>	<b>156</b>	<b>525,731,152</b>	<b>172</b>	<b>-15,720,000</b>	<b>505,203,000</b>	<b>172</b>
<b>Unobligated Balance:</b>							
Available, start of year.....	--	:	-4,808,152	:	--	--	:
Lapsing.....	65,614	:	--	:	--	--	:
Available, end of year.....	+4,808,152	:	--	:	--	--	:
<b>Mandatory Activities:</b>							
Beginning Farmers and Ranchers Program .....	-18,000,000	:	-19,000,000	:	--	-19,000,000	:
Biodiesel Fuel Education Program.....	-1,000,000	:	-1,000,000	:	--	-1,000,000	:
Healthy Urban Food Enterprise Development Center .....	-1,000,000	:	-1,000,000	:	--	-1,000,000	:
Risk Management Education .....	-191,848	:	-5,000,000	:	--	-5,000,000	:
Available, end of year.....	-4,808,152	:	--	:			:
<b>Total, Appropriation .....</b>	<b>474,250,000</b>	<b>156</b>	<b>494,923,000</b>	<b>172</b>	<b>15,720,000</b>	<b>479,203,000</b>	<b>172</b>

## NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

## Justification of Increases and Decreases

## Extension Activities

1. A net decrease of \$2,345,000 for Smith-Lever 3(d) programs (\$12,613,000 available in 2010) as follows:

- a. An increase of \$263,000 for Sustainable Agriculture (\$4,705,000 available in 2010) as follows:

The Sustainable Agriculture program provides education and training for Cooperative Extension, the Natural Resources Conservation Service and other agricultural professionals so that they have state-of-the-art knowledge and tools to share with producers and the public. Funds are used for statewide coordination of sustainable agriculture programs and competitive grants awarded by the four SARE regions. Increased funding will support training on crop and livestock management to improve soil quality and carbon sequestration, save energy, and mitigate climate change; and marketing innovations that enhance profitability, such as local and regional food systems. Evaluations confirm that agricultural professionals put this knowledge to use in their educational programs and interactions with farmers, ranchers and the public.

- b. An increase of \$2,255,000 for Federally-Recognized Tribes Extension Program (FRTEP) (\$3,045,000 available in 2010) as follows:

FRTEP supports Extension agents who establish Extension education programs in agriculture, community development, families and societal issues facing Native Americans on the Indian Reservations and Tribal jurisdictions of Federally-Recognized Tribes. While every county in the U.S. has access to the Cooperative Extension Service, only approximately 30 tribes of 365 enjoy the same access.

This increase allows USDA to more than double the number of tribes being served by Extension programs.

These funds will result in the development and deployment of knowledge based interventions appropriately suited for Native Americans to help them engage in sustainable production practices with low pest and disease outbreaks. This project will educate the target population on matters related to food contaminants and teach youth leadership and management skills needed to become effective leaders in their communities and beyond within 10 years.

- c. A decrease of \$4,863,000 to eliminate funding for Farm Safety (\$4,863,000 available in 2010) as follows:

A decrease is proposed so funding can be directed to support higher priority activities. Alternative funding from other programs, State and local governments, and private sources could be used to support aspects of this program deemed to be of priority at State and/or local levels.

2. An increase of \$1,000,000 for Extension Services at 1994 Institutions (\$4,321,000 available in 2010) as follows:

Obesity and associated chronic diseases, such as diabetes, are considerably higher among Native American populations and in Native American communities. 1994 Institutions recognize the severity of this situation and are seeking to bring about change through research, education, and outreach. Often a holistic and culturally sensitive approach is used such as the use of native plants and traditional food sources.

Requested funds would be used to pilot an Expanded Food and Nutrition Education Program (EFNEP) type model in a number of Native American communities through a competitive grant process. EFNEP is one of the most impactful programs of USDA. 1994 institutions, which have demonstrated some success in providing nutrition education, would partner with 1862 institutions with a strong EFNEP program or other innovative infrastructures to increase their capacity to provide culturally relevant nutrition education that supports behavioral change.

This investment will result in pilot EFNEP programs at five 1994 land grant universities.

3. Reductions in lower priority programs as follows:

- a. A decrease of \$1,784,000 to eliminate funding for Grants for Youth Serving Institutions (\$1,784,000 available in 2010) as follows:

A decrease is proposed so funding can be directed to support higher priority activities. Alternative funding from other programs, State and local governments, and private sources could be used to support aspects of this program deemed to be of priority at State and/or local levels.

- b. A decrease of \$1,000,000 to eliminate funding for Food Animal Residue Avoidance Database (\$1,000,000 available in 2010) as follows:

A decrease is proposed so funding can be directed to support higher priority activities. Alternative funding from other programs, State and local governments, and private sources could be used to support aspects of this program deemed to be of priority at State and/or local levels.

4. A net decrease of \$11,591,000 under Federal Administration activities (\$19,843,000 available in 2010) as follows:

- a. A decrease of \$11,831,000 to eliminate earmarked projects under Federal Administration activities (\$11,831,000 available in 2010) as follows:

The Administration strongly believes that peer-reviewed competitive programs that meet national needs are a more effective use of taxpayer dollars than earmarks that are provided to a specific recipient. The FY 2011 budget proposes to eliminate these targeted earmarks.

Some broad aspects of many topics currently addressed by earmarked projects are may be included in the scope of other broader based, competitively-awarded Federal programs or programs supported with non-Federal funds administered by State-level scientific program managers.

- b. An increase of \$240,000 to fund pay costs (\$8,012,000 available in 2010) as follows:

The NIFA budget consists of numerous programs that award thousands of individual grants to colleges and universities and other eligible recipients. These programs are managed at the national level by a staff of about 371 full time employees at the end of FY 2009 and with a number of temporary and intermittent employees. Grants management includes developing program regulations, establishing broad program goals, reviewing proposals, preparing grant documentation, post-award review of progress, and similar activities necessary to achieve program goals. Between 3 and 4 percent of funds provided for programs may be used to support administration of the programs as established by law.



Table 2A for FY 2010  
Distribution of Federal Payments for Extension Activities

STATE	SMITH-LEVER FORMULA	PEST MGMT	FARM SAFETY	1890's UNIV & TUSK UNIV	FEDERALLY- RECOGNIZED TRIBES	EFNEP	YOUTH FARM SAFETY EDUCATION AND CERTIFICATION	YOUTH AT RISK	NEW TECHNOLOGIES AT AG EXT	1890 FACILITIES	RENEWABLE RESOURCES	Grants to Youth Serving Organizations
FEDERAL ADMINISTRATION	8,157,500	397,520	194,520	1,707,080	121,800	522,120	19,440	336,480	70,000	790,800	162,720	71,360
SUBTOTAL OBLIGATIONS	8,157,500	397,520	194,520	1,707,080	121,800	522,120	19,440	336,480	70,000	790,800	162,720	71,360
UNOBLIGATED BALANCE	289,342,500	9,540,480	4,668,480	40,969,920	2,923,200	67,547,880	466,560	8,075,520	1,680,000	18,979,200	3,905,280	1,712,640
<b>TOTAL</b>	<b>297,500,000</b>	<b>9,938,000</b>	<b>4,863,000</b>	<b>42,677,000</b>	<b>3,045,000</b>	<b>68,070,000</b>	<b>486,000</b>	<b>8,412,000</b>	<b>1,750,000</b>	<b>19,770,000</b>	<b>4,068,000</b>	<b>1,784,000</b>

	SUSTAINABLE AGRICULTURE	RURAL HEALTH & SAFETY	FEDERAL ADM-SPECIAL PROJECTS	INDIAN TRIBAL 1994 COLLEGES	Food Animal Residue Avoidance Database	Women and Minorities in STEM Fields	Mandatory Programs a/	TOTAL FEDERAL FUNDS
FEDERAL ADMINISTRATION	188,200	69,520	9,038,240	172,840	40,000	16,000	1,100,000	23,176,140
SUBTOTAL OBLIGATIONS	188,200	69,520	9,038,240	172,840	40,000	16,000	1,100,000	23,176,140
UNOBLIGATED BALANCE	4,516,800	1,668,480	11,357,760	4,148,160	960,000	384,000	29,708,152	502,555,012
<b>TOTAL</b>	<b>4,705,000</b>	<b>1,738,000</b>	<b>20,396,000</b>	<b>4,321,000</b>	<b>1,000,000</b>	<b>400,000</b>	<b>30,808,152</b>	<b>525,731,152</b>

a/ Mandatory Programs includes: Healthy Urban Enterprise Development, Beginning Farmer and Ranchers Development, Risk Management, and Biodiesel Education

Table 3A for FY 2011  
Distribution of Federal Payments for Extension Activities

STATE	SMITH-LEVER FORMULA	PEST MGMT	1890's UNIV & TUSK UNIV	FEDERALLY- RECOGNIZED TRIBES	EFNEP	YOUTH FARM SAFETY EDUCATION AND CERTIFICATION	YOUTH AT RISK	NEW TECHNOLOGIES AT AG EXT	1890 FACILITIES	RENEWABLE RESOURCES	SUSTAINABLE AGRICULTURE	RURAL HEALTH & SAFETY
FEDERAL ADMINISTRATION	11,900,000	397,520	1,707,080	212,000	2,722,800	19,440	336,480	70,000	790,800	162,720	198,720	69,520
SUBTOTAL OBLIGATIONS	11,900,000	397,520	1,707,080	212,000	2,722,800	19,440	336,480	70,000	790,800	162,720	198,720	69,520
UNOBLIGATED BALANCE	285,600,000	9,540,480	40,969,920	5,088,000	65,347,200	466,560	8,075,520	1,680,000	18,979,200	3,905,280	4,769,280	1,668,480
<b>TOTAL</b>	<b>297,500,000</b>	<b>9,938,000</b>	<b>42,677,000</b>	<b>5,300,000</b>	<b>68,070,000</b>	<b>486,000</b>	<b>8,412,000</b>	<b>1,750,000</b>	<b>19,770,000</b>	<b>4,068,000</b>	<b>4,968,000</b>	<b>1,738,000</b>

	FEDERAL ADM-SPECIAL PROJECTS	INDIAN TRIBAL 1994 COLLEGES	Women and Minorities in STEM Fields	Mandatory Programs a/	TOTAL FEDERAL FUNDS
FEDERAL ADMINISTRATION	8,805,000	212,840	16,000	1,040,000	28,660,920
SUBTOTAL OBLIGATIONS	8,805,000	212,840	16,000	1,040,000	28,660,920
UNOBLIGATED BALANCE	0	5,108,160	384,000	24,960,000	476,542,080
<b>TOTAL</b>	<b>8,805,000</b>	<b>5,321,000</b>	<b>400,000</b>	<b>26,000,000</b>	<b>505,203,000</b>

a/ Mandatory Programs includes: Healthy Urban Enterprise Development, Beginning Farmer and Ranchers Development, Risk Management, and Biodiesel Education

## NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

CLASSIFICATION BY OBJECTSExtension Activities2009 Actuals and Estimated 2010 and 2011

Personnel Compensation:	<u>2009</u>	<u>2010</u>	<u>2011</u>
Washington, D.C. ....	\$11,516,324	\$11,682,880	\$11,870,080
Field .....	0	0	0
11 Total personnel compensation .....	11,516,324	11,682,880	11,870,080
12 Personnel benefits .....	3,167,934	3,295,171	3,347,971
13 Benefits for former personnel .....	5,408	5,408	5,408
Total pers. comp. & benefits .....	14,689,666	14,983,459	15,223,459
<b>Other Objects:</b>			
21 Travel .....	984,573	995,403	906,353
22 Transportation of Things .....	5,943	6,008	6,074
23.1 Rent to GSA.....	7,882	7,969	8,056
23.2 Rent Paid to others .....	43,353	43,830	44,312
23.3 Communications, Utilities, etc. ....	342,885	346,657	248,470
24 Printing and Reproduction .....	158,697	159,443	161,197
25.1 Advisory & assist. Services .....	244,683	247,375	248,096
25.2 Other Services .....	2,585,034	2,593,469	2,595,998
25.3 Purchases of G&S from Govt. ....	44,285	44,772	45,265
25.4 Operation and Maintenance of facilities ....	216,621	219,004	206,513
25.5 Research and Development Contracts .....	1,655,726	1,673,939	1,527,552
25.6 ADP Services and Supplies (NFC) .....	18,441	18,644	18,849
25.7 Operation and maintenance of equipment ...	57,950	58,587	59,232
25.8 Subsistence and support of persons .....	42,712	43,182	43,657
26 Supplies .....	262,046	264,929	213,641
31 Equipment .....	186,356	188,406	146,276
41 Grants, Contracts, etc. ....	471,651,060	503,550,000	483,500,000
43 Interest Prompt Payment .....	2,287	0	0
Total, other objects .....	478,510,534	510,461,617	489,979,541
Total Obligations .....	493,200,200	525,445,076	505,203,000
<b>Position Data:</b>			
Average Salary, ES .....	\$166,107	\$169,429	\$172,987
Average Salary, GS .....	\$92,868	\$94,726	\$96,715
Average Grade, GS .....	11.8	11.8	11.8

**NATIONAL INSTITUTE OF FOOD AND AGRICULTURE**

**STATUS OF PROGRAM**

**EXTENSION ACTIVITIES:**

**Current Activities:**

1. **Smith-Lever 3(b) and (c).** Federal contributions for cooperative extension work are primarily derived from Section 3(b) and (c) formula funds appropriated under the Smith-Lever Act of 1914. These funds comprise about two-thirds of the total Federal funding for extension activities. Federal funds are matched by non-Federal sources, primarily States and counties, and support the major educational efforts that are central to the mission of the Cooperative Extension System and common to most extension units, such as agricultural production; nutrition, diet, and health; natural resources and environmental management; community resources and economic development; family development and resource management; 4-H and youth development; and leadership and volunteer development. Smith-Lever 3(b) and (c) funds must be matched by non-Federal funds. As a result of provisions contained in AREERA, States must expend 25 percent, or two times the level spent in FY 1997 (whichever is less), on cooperative extension activities in which two or more States cooperate to solve problems that concern more than one State. This also applies to activities that integrate cooperative research and extension.
  
2. **Smith-Lever 3(d).** Other sources of Federal funding for extension activities include the Smith-Lever section 3(d) or targeted funds, which are provided to the States to address special programs or concerns of regional and national importance and are distributed through administrative or non-statutory formulas and merit-reviewed projects. The following extension programs are funded under the Smith-Lever 3(d) funding mechanism: EFNEP; Pest Management; Farm Safety; Children, Youth, and Families At Risk; Federally-Recognized Tribes Extension Program; Sustainable Agriculture; Youth Farm Safety Education and Certification, and New Technologies for Agricultural Extension. EFNEP funds are distributed on a formula basis and are not required to be matched. Funds under other Smith-Lever 3(d) programs are distributed on a competitive process.
  
3. **Payments to the 1890 Land-Grant Institutions and Tuskegee University and West Virginia State University.** Federal funding provides the primary support for the extension programs at the 1890 Land-Grant Institutions and Tuskegee University. The general provisions section 753 of Public Law 107-76 makes West Virginia State University eligible to receive funds under this program. This program primarily addresses the needs of small-scale and minority agricultural producers and other limited-resource audiences. Section 1444 of the 1977 Farm Bill provides that the funds made available to the 1890's for extension programs be distributed on the basis of a formula identical to the Smith-Lever 3 (b) & (c) formula. Section 7121 of FCEA amended section 1444(a)(2) to require that funds appropriated for this program shall be not less than 20 percent of the Smith-Lever Act appropriation. The payment of funds under this program requires a 100 percent non-Federal match. These funds are used to maintain the extension infrastructure at the 1890 institutions and the partnership with the Cooperative Extension System.
  
4. **1890 Facilities Program.** Federal funds provide the primary support for enhanced extension, research, and teaching facilities at all of the 1890 Land-Grant Institutions. Some examples of the use of funds include the renovation of office space and laboratories; much needed computer and equipment purchases; the acquisition of satellite downlinking and distance learning capabilities; and the construction of joint research and extension multi-purpose/conference centers. The 1890 Facilities Program enables the 1890 Land-Grant Institutions to improve their capacity and better address the needs of students, farmers, and rural populations with limited resources.

5. **Renewable Resources Extension Act (RREA)**. RREA provides funding for expanded natural resource education programs. Funds are distributed primarily by an administratively-derived formula to all States for educational programs and projects and a limited number of special emphasis national programs. The Cooperative Extension System provides research-based education about renewable natural resources. Extension education enables the management of renewable natural resources in a way that better serves individual land owners, local communities, and the Nation.
6. **Ag in the Classroom**. The program helps to advance agricultural literacy through a grassroots network of State coordinators, school teachers, agribusiness leaders, and other educators by supporting initiatives that include expanding outreach to underrepresented populations; regional demonstration projects; integration of information technology to reduce program delivery costs; and outstanding teacher recognition initiatives.
7. **Extension Services at 1994 Institutions**. The program provides funding for Native American communities and Tribal Colleges for extension activities as set forth in the Smith Lever Act. Funding is awarded on a competitive basis.

**Selected Examples of Recent Progress:**

1. **Smith-Lever 3(b) and (c)**. As a result of the 2008 Perennial Plant Conference sponsored by University of Connecticut Extension, commercial growers estimated that they would reduce business expenditures by an average of \$12,300 and as high as \$60,000. Also, growers estimated that they would increase sales by an average of \$45,714 and as high as \$200,000. In addition, seven greenhouse growers received pesticide applicator re-certification credit at extension sponsored training in Connecticut.

Through a variety of local programming initiatives in nearly 40 counties by Cornell University Extension in New York, more than 17,000 persons participated in programs directed at practical energy conservation measures. Many more were reached through media initiatives. A statewide survey of participants indicated that 6,207 (69 percent) of 8,991 respondents had implemented recommended practices. Recommended practices typically achieve 20 - 30 percent reduction in energy use per home; average electricity savings of 1,298 kWh (12 percent); average oil or gas savings of 270 therms (22 percent); and average cash savings of \$400 per year. Total estimated savings from the statewide effort total more than \$4,000,000.

2. **Smith-Lever 3 (d)**. EFNEP program continues to be highly effective in changing participants' behaviors, resulting in significant improvements in daily living skills. Ninety-five percent of adults reported improvements in their diets including consuming the equivalent of one additional cup of fruits and vegetables, 84 percent of recent graduates improved food management practices, 88 percent improved nutrition practices, and 65 percent improved food safety practices. Multiple cost-benefit studies in past years show that every dollar invested in EFNEP results in from \$3.63 to \$10.64 in saved health care costs and \$2.48 saved in food expenditures. State success examples include: The Mississippi State University Extension EFNEP reported over 95 percent of the EFNEP adult participants made positive changes in one or more food groups. The Iowa State University EFNEP survey found that over 98 percent of EFNEP program participants reported positive change in any food group at program exit. The University of Missouri reported over 87 percent of its EFNEP families made a positive change in consumption of at least one food group.
3. **1890 Institutions**. Southern University (Louisiana) Cooperative Extension conducted two goat field days with about 130 producers and potential producers in attendance. Participants at the goat field days gained knowledge/skills about the benefits of the FAMACHA (an acronym derived from the

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name of the creator of this system) chart, used the chart and saved over \$90,000 in goat health care costs. FAMACHA is a system to evaluate anemia in goats and sheep.

## NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets).

Integrated Activities

For the integrated research, education, and extension grants programs, including necessary  
 1 administrative expenses, [~~\$60,022,000~~]\$24,874,000, as follows: [for competitive grants programs  
 authorized under section 406 of the Agricultural Research, Extension, and Education Reform Act of  
 1998 (7 U.S.C. 7626), \$45,148,000, including \$12,649,000 for the water quality program, \$14,596,000  
 for the food safety program, \$4,096,000 for the regional pest management centers program, \$4,388,000  
 for the Food Quality Protection Act risk mitigation program for major food crop systems, \$1,365,000  
 for the crops affected by Food Quality Protection Act implementation, \$3,054,000 for the methyl  
 bromide transition program, and \$5,000,000 for the organic transition program;] for a competitive  
 international science and education grants program authorized under section 1459A of the National  
 Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3292b), to remain  
 available until expended, \$3,000,000; for grants programs authorized under section 2(c)(1)(B) of  
 2 Public Law 89-106, as amended, \$732,000, to remain available until September 30, [2011]2012, for  
 3 the critical issues program; \$1,312,000 for the regional rural development centers program; for grants  
authorized under section 1624 (7 U.S.C. 5813) , \$10,000,000; and \$9,830,000 for the Food and  
 Agriculture Defense Initiative authorized under section 1484 of the National Agricultural Research,  
 4 Extension, and Teaching Policy Act of 1977, to remain available until September 30, [2011]2012.  
*(7 U.S.C. 450i(c)(1)(B), 3292b,3351, 7626; Agriculture, Rural Development, Food and Drug*  
*Administration, and Related Agencies Appropriations Act, 2010.)*

Explanation of Changes

The first change deletes language for competitive grants programs authorized under section 406 of the Agricultural Research, Extension, and Education Reform Act of 1998 (7 U.S.C. 7626).

The second change allows these funds to remain available until September 30, 2012.

The third change adds the language for grants authorized under section 1624 of the Food, Agriculture, Conservation, and Trade Act of 1990 which authorizes a Federal-State matching grant program to assist in the creation or enhancement of State sustainable agriculture research, extension, and education programs. The matching requirement will leverage State and/or private money, and build the long-term capacity to guide the evolution of American agriculture to a more highly productive, sustainable system. Funding will support activities that integrate sustainable agriculture in all State research, extension, and education projects; support new research at sustainable agriculture centers at the nation's land grant and other colleges and universities; build stronger Statewide farmer-to-farmer networks and outreach and technical assistance strategies; incorporate sustainable agriculture studies and curriculum in undergraduate and graduate degree programs.

These competitive grants will integrate and elevate research, education and extension activities in order to more widely benefit American agriculture, ensuring it is of the highest quality and that it is profitable, protects the nation's land and water, and is a force for a rewarding way of life for farmers and ranchers whose quality products and operations sustain their communities and society.

The fourth change allows these funds to remain available until September 30, 2012.

## NATIONAL INSTITUTE FOR FOOD AND AGRICULTURE

Lead-Off Tabular StatementINTEGRATED ACTIVITIES

Appropriations Act, 2010.....	\$60,022,000
Budget Estimate, 2011.....	<u>24,874,000</u>
Decrease in Appropriation.....	- <u>35,148,000</u>

Summary of Increases and Decreases

<u>Item of Change</u>	<u>2010 Estimated</u>	<u>Pay Costs</u>	<u>Program Changes</u>	<u>2011 Budget</u>
Integrated Activities:				
Water Quality .....	\$ 12,649,000	--	-\$12,649,000	--
Food Safety .....	14,596,000	--	-14,596,000	--
Regional Pest Management Center .....	4,096,000	--	- 4,096,000	--
Crops at Risk From FQPA Implementation .	1,365,000	--	- 1,365,000	--
FQPA Risk Mitigation Program for Major				
Food Crop System .....	4,388,000	--	- 4,388,000	--
Methyl Bromide Transition .....	3,054,000	--	- 3,054,000	--
Organic Transition Program .....	5,000,000	--	- 5,000,000	--
Food and Agriculture Defense Initiative				
(Homeland Security).....	9,830,000	--	--	\$ 9,830,000
International Science and Education Grants				
Programs.....	3,000,000	--	--	3,000,000
Critical Issues .....	732,000	--	--	732,000
Sustainable Agriculture Federal - State				
Matching Grant Program.....	--	--	+10,000,000	10,000,000
Rural Development Centers.....	<u>1,312,000</u>	--	--	<u>1,312,000</u>
Total Available, Integrated				
Activities.....	<u>\$ 60,022,000</u>	==	<u>35,148,000</u>	<u>\$ 24,874,000</u>



NATIONAL INSTITUTE OF FOOD AND AGRICULTURE  
INTEGRATED ACTIVITIES

Project Statement  
(On basis of Available Funds)

Project	2009 Actual		2010 Estimated		Increase or Decrease	2011 Estimated	
	Amount	Staff Years	Amount	Staff Years		Amount	Staff Years
<b>Integrated Activities:</b>							
Food and Agriculture Defense Initiative (Homeland Security) .....	\$9,816,421		\$9,830,000		--	\$9,830,000	
Carryover .....			\$18,112		-\$18,112		
Water Quality .....	12,649,000		12,649,000		-12,649,000	--	
Food Safety .....	14,586,902		14,596,000		-14,596,000	--	
Regional Pest Management Centers .....	4,096,000		4,096,000		-4,096,000	--	
Organic Transition Program .....	1,842,000		5,000,000		-5,000,000	--	
FQPA Risk Mitigation Program for Major Food Crop Systems .....	4,388,000		4,388,000		-4,388,000	--	
Crops at Risk from FQPA Implementation .....	1,365,000		1,365,000		-1,365,000	--	
Methyl Bromide Transition Program .....	3,054,000		3,054,000		-3,054,000	--	
Sustainable Agriculture Federal-State Matching Grant Program.....	--		--		+10,000,000	10,000,000	
Critical Issues - Plant and Animal Diseases .....	600,472		732,000		--	732,000	
Carryover .....	--		+677,524		-677,524	--	
Regional Rural Development Centers .....	1,312,000		1,312,000		--	1,312,000	
International Science and Education Grants .....	3,442,976		3,000,000		--	3,000,000	
Carryover .....	--		146,798		-146,798	--	
<b>Total Obligations Estimate .....</b>	<b>57,152,771</b>	<b>10</b>	<b>60,864,434</b>	<b>10</b>	<b>-35,990,434</b>	<b>24,874,000</b>	<b>10</b>
Unobligated Balance:							
Available, start of year.....	-1,193,159		-842,434		842,434	--	
Lapsing.....	9,098		--		--	--	
Available, end of year.....	+842,434		--		--	--	
Prior Year Recoveries.....	+52,856						
<b>Total Available or Estimate.....</b>	<b>56,864,000</b>	<b>10</b>	<b>60,022,000</b>	<b>10</b>	<b>-35,148,000</b>	<b>24,874,000</b>	<b>10</b>
Rescission.....	--		--		--	--	
<b>Mandatory Activities:</b>							
Organic Research Initiative Sec. 7206.....	18,000,000		20,000,000		--	20,000,000	
Specialty Crop Grant Programs, Sec. 7311.....	50,000,000		50,000,000		--	50,000,000	
<b>Total .....</b>	<b>124,864,000</b>	<b>10</b>	<b>130,022,000</b>	<b>10</b>	<b>35,148,000</b>	<b>94,874,000</b>	
<b>Mandatory Activities:</b>							
Organic Research Initiative Sec. 7206.....	-18,000,000						
Specialty Crop Grant Programs, Sec. 7311.....	-50,000,000						
<b>Total Appropriation .....</b>	<b>56,864,000</b>	<b>10</b>	<b>130,022,000</b>	<b>10</b>	<b>-35,148,000</b>	<b>94,874,000</b>	<b>10</b>

NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

Justification of Increases and Decreases

Integrated Activities

1. A decrease of \$45,148,000 to Section 406 programs (\$45,148,000 available in 2010) as follows:

In FY 2011, the budget proposes to reduce the funding for Section 406 programs to support higher priority activities. Research, extension, and education topics previously funded under Section 406 can be supported by other competitive grant programs including AFRI, as well as State and local governments, and private sources. In addition \$20 million in mandatory funding through the Organic Agriculture Research and Extension Initiative is available for research on organics. The programs are as follows:

	FY 2010 ( \$000 )	Decrease ( \$000 )	FY 2011 ( \$000 )
Water Quality	\$12,649	-\$12,649	\$0
Food Safety	14,596	-14,596	0
Regional Pest Management Centers	4,096	-4,096	0
Crops at Risk from FQPA Implementation	1,365	-1,365	0
FQPA Risk Mitigation Program for Major Food Crop Systems	4,388	-4,388	0
Methyl Bromide Transition Program	3,054	-3,054	0
Organic Transition Program	<u>5,000</u>	<u>-5,000</u>	<u>0</u>
Total	\$45,148	-\$45,148	\$0

2. An increase of \$10,000,000 to establish the Sustainable Agriculture Federal-State Matching Grant Program (no funds available in 2010) as follows:

Section 1623 of the Food, Agriculture, Conservation, and Trade Act of 1990 authorizes a Federal-State matching grant program to assist in the creation or enhancement of State sustainable agriculture research, extension, and education programs. The matching requirement will leverage State and/or private funds, and build the long-term capacity to guide the evolution of American agriculture to a more highly productive, sustainable system. Funding will support activities that:

- Integrate sustainable agriculture in all State research, extension, and education projects;
- Support new research at sustainable agriculture centers at the nation’s land grant and other colleges and universities;
- Build stronger Statewide farmer-to-farmer networks and outreach and technical assistance strategies; and
- Incorporate sustainable agriculture studies and curriculum in undergraduate and graduate degree programs.

These competitive grants will integrate and elevate research, education and extension activities in order to more widely benefit American agriculture, ensuring it is of the highest quality and that it is profitable, protects the nation’s land and water, and is a force for a rewarding way of life for farmers and ranchers whose quality products and operations sustain their communities and society.

INTEGRATED PROGRAMS

STATE	Critical Issues -	Organic Research	International	Crops at Risk	FQPA Risk	Organic Transition			Regional Pest	Rural	Speciality Crop	TOTAL		
	Plant and Animal Diseases	Homeland Security	and Extension Initiative	from FQPA Implementation	Mitigation Program for Major Food Crop System	Food Safety	Methyl Bromide	Risk Assessment	Management Centers	Development Centers	Research Initiative	FEDERAL FUNDS		
ALABAMA	0	0	0	444,884	0	0	599,999	0	0	974,598	0	0	2,019,481	
ALASKA	0	0	0	0	0	0	0	0	0	0	0	0	0	
AMERICAN SAMOA	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARIZONA	0	298,000	0	0	0	0	0	0	0	0	550,000	0	848,000	
ARKANSAS	0	0	0	0	0	0	290,145	0	0	0	0	1,463,234	1,753,379	
CALIFORNIA	0	1,138,350	372,135	559,568	627,600	1,191,618	0	0	0	0	0	5,923,834	9,813,105	
COLORADO	159,341	298,000	0	0	0	1,084,429	0	0	0	0	1,282,000	49,949	2,873,719	
CONNECTICUT	0	0	0	0	0	0	0	0	0	0	385,000	3,885,893	4,270,893	
DELAWARE	0	0	0	0	0	0	0	0	0	0	0	0	0	
DISTRICT OF COLUMBIA	0	0	0	0	0	0	0	0	0	0	0	0	0	
FLORIDA	89,900	1,128,350	0	0	0	597,808	0	0	0	0	0	0	1,816,058	
GEORGIA	0	298,000	0	149,885	0	598,541	448,910	0	0	0	774,581	2,269,917	4,161,616	
GUAM	0	0	41,616	0	0	0	0	0	0	0	0	0	41,616	
HAWAII	0	0	398,528	0	0	0	0	0	0	0	0	0	398,528	
IDAHO	0	0	0	0	0	0	0	0	0	0	749,672	0	749,672	
ILLINOIS	0	0	0	0	0	599,999	0	0	975,598	0	660,000	3,778,279	6,013,876	
INDIANA	0	783,250	0	149,746	0	0	0	0	0	0	300,000	0	1,232,996	
IOWA	0	298,000	1,047,024	0	0	598,607	0	433,568	0	0	740,459	0	3,117,658	
KANSAS	0	880,350	0	140,370	0	0	0	0	0	0	114,000	0	1,134,720	
KENTUCKY	0	50,000	0	0	0	0	0	0	0	0	0	0	50,000	
LOUISIANA	0	298,000	0	0	0	0	0	0	0	0	0	3,360,736	3,658,736	
MAINE	0	0	1,320,378	0	0	0	0	0	0	0	0	1,023,805	2,344,183	
MARYLAND	0	0	759,480	0	0	599,924	0	0	0	0	600,000	5,161,495	7,120,899	
MASSACHUSETTS	0	0	0	0	0	0	0	0	0	0	0	0	0	
MICHIGAN	0	880,350	1,049,674	143,849	554,558	599,939	0	0	0	312,256	0	1,854,372	5,394,998	
MICRONESIA	0	0	0	0	0	0	0	0	0	0	0	0	0	
MINNESOTA	0	50,000	38,466	148,871	0	600,000	0	0	0	0	0	0	837,337	
MISSISSIPPI	0	50,000	0	149,825	0	0	0	0	0	312,256	0	0	512,081	
MISSOURI	0	0	0	139,905	0	0	0	0	0	0	0	0	139,905	
MONTANA	0	0	0	0	0	668,820	0	0	0	0	0	0	668,820	
NEBRASKA	0	50,000	1,489,516	0	0	599,992	0	0	0	0	544,500	0	2,684,008	
NEVADA	0	0	0	0	0	0	0	0	0	0	0	0	0	
NEW HAMPSHIRE	0	0	0	0	0	0	0	0	0	0	0	0	0	
NEW JERSEY	0	50,000	0	149,955	0	600,000	0	0	0	0	0	1,503,166	2,303,121	
NEW MEXICO	0	50,000	0	0	0	0	0	0	0	0	0	0	50,000	
NEW YORK	199,979	1,278,350	2,325,660	149,355	0	591,732	0	0	0	0	0	197,276	4,742,352	
NORTH CAROLINA	0	298,000	1,174,942	149,261	0	0	768,347	658,769	974,598	0	228,000	0	4,251,917	
NORTH DAKOTA	0	0	0	0	0	0	0	0	0	0	0	0	0	
NORTHERN MARIANAS	0	0	0	0	0	0	0	0	0	0	0	0	0	
OHIO	29,974	50,000	1,559,886	0	0	1,597,830	0	659,527	0	0	0	49,966	3,947,183	
OKLAHOMA	0	0	0	0	0	968,497	0	0	0	0	0	422,964	1,391,461	
OREGON	98,000	50,000	839,290	149,999	0	0	0	0	0	0	0	1,392,933	2,530,222	
PENNSYLVANIA	0	50,000	538,415	149,993	0	598,752	688,187	0	974,598	312,256	240,000	3,578,620	7,130,821	
PUERTO RICO	0	0	0	0	0	0	0	0	0	0	0	0	0	
RHODE ISLAND	0	0	0	149,723	0	0	0	0	0	0	1,090,000	0	1,239,723	
SOUTH CAROLINA	0	0	0	149,546	0	0	0	0	0	0	0	48,947	198,493	
SOUTH DAKOTA	0	50,000	0	0	0	0	0	0	0	0	645,788	0	695,788	
TENNESSEE	0	50,000	0	0	0	1,196,155	0	0	0	0	652,000	0	1,898,155	
TEXAS	0	298,000	0	405,971	0	0	0	0	0	0	1,270,000	3,900,889	5,874,860	
UTAH	0	50,000	637,519	0	0	0	0	0	0	312,256	0	0	999,775	
VERMONT	0	0	946,675	0	0	0	0	0	0	0	0	0	946,675	
VIRGIN ISLANDS	0	0	0	0	0	0	0	0	0	0	0	0	0	
VIRGINIA	0	0	0	170,133	0	0	0	0	0	0	0	0	170,133	
WASHINGTON	0	308,000	1,543,362	149,625	0	2,048,490	696,339	0	0	0	566,610	8,282,415	13,594,841	
WEST VIRGINIA	0	0	0	125,187	0	0	0	0	0	0	0	0	125,187	
WISCONSIN	0	298,000	541,172	149,968	0	811,565	600,000	0	0	0	1,382,000	0	3,782,705	
WYOMING	0	50,000	574,621	0	0	0	0	0	0	0	0	0	624,621	
BIOTECH	1,920	1,740	2,000	0	8,060	0	7,800	1,220	1,720	0	0	0	24,460	
SBIR	17,568	0	0	0	10,920	35,104	116,768	24,432	14,736	32,768	101,192	1,200,000	1,563,984	
PEER PANEL	915	0	79,641	30,845	7,161	20,901	63,770	14,260	0	0	41,819	146,646	405,958	
FEDERAL ADMINISTRATION	2,875	383,681	720,000	66,213	54,600	175,520	574,742	122,160	73,680	163,840	52,480	505,960	2,000,000	4,895,751
SUBTOTAL	600,472	9,816,421	18,000,000	3,442,976	1,365,000	4,388,000	14,586,902	3,054,000	1,842,000	4,096,000	1,312,000	12,649,000	50,000,000	125,152,771
LAPSING	0	0	0	0	0	0	9,098	0	0	0	0	0	0	9,098
UNOBLIGATED BALANCE	677,524	18,112	0	146,798	0	0	0	0	0	0	0	0	0	842,434
TOTAL	1,277,996	9,834,533	18,000,000	3,589,774	1,365,000	4,388,000	14,596,000	3,054,000	1,842,000	4,096,000	1,312,000	12,649,000	50,000,000	125,995,205

NATIONAL INSTITUTE OF FOOD AND AGRICULTURE  
INTEGRATED PROGRAMS

TABLE 2B - FISCAL YEAR 2010

STATE	Critical Issues- Plant and Animal Diseases	Crops at Risk from FQPA Implementation	FQPA Risk Food Crop System Program for Major Food Crop System	Food Safety	Methyl Bromide	Organic Transition Risk Assessment	Regional Pest Management Center	Rural Development Centers	International Science and Education Grants	Water Quality	Homeland Security	Biotech Risk Assessment	Organic Research Initiative Sec.7311	Specialty Crop	TOTAL FEDERAL FUNDS
SBIR	17,568	10,920	35,104	116,768	24,432	40,000	32,768	10,496	0	101,192	0	0	0	1,200,000	1,589,248
BIOTECH RISK	4,760	960	12,500	42,300	0	0	0	0	0	0	39,020	0	0	0	99,540
FEDERAL ADMIN OBLIGATED	29,280	54,600	175,520	583,840	122,160	200,000	163,840	52,480	120,000	505,960	393,200	0	800,000	2,000,000	5,200,880
UNOBLIGATED	680,392	1,298,520	4,164,876	13,853,092	2,907,408	4,760,000	3,899,392	1,249,024	2,880,000	12,041,848	9,397,780	0	19,200,000	46,800,000	123,132,332
TOTAL	732,000	1,365,000	4,388,000	14,596,000	3,054,000	5,000,000	4,096,000	1,312,000	3,000,000	12,649,000	9,830,000	0	20,000,000	50,000,000	130,022,000

TABLE 3B - FISCAL YEAR 2011  
INTEGRATED ACTIVITIES

INTEGRATED PROGRAMS

STATE	Critical Issues Plant and Animal Diseases	Crops at Risk from FQPA Implementation	FQPA Risk Food Crop System Program for Major Food Crop System	Food Safety	Methyl Bromide	Organic Transition Risk Assessment	Regional Pest Management Center	Rural Development Centers	International Science and Education Grants	Water Quality	Homeland Security	Sustainable Ag. Fed.-State Matching Grant	Biotech Risk Assessment	Organic Research Initiative Sec.7311	Specialty Crop	TOTAL FEDERAL FUNDS
SBIR	17,568	0	0	0	0	0	0	31,488	0	0	235,920	0	0	0	1,200,000	1,484,976
BIOTECH RISK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL ADMIN OBLIGATED	29,280	0	0	0	0	0	0	52,480	120,000	0	393,200	400,000	0	800,000	2,000,000	3,794,960
UNOBLIGATED	685,152	0	0	0	0	0	0	1,228,032	2,880,000	0	9,200,880	9,600,000	0	19,200,000	46,800,000	89,594,064
TOTAL	732,000	0	0	0	0	0	0	1,312,000	3,000,000	0	9,830,000	10,000,000	0	20,000,000	50,000,000	94,874,000

## NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

CLASSIFICATION BY OBJECTSIntegrated Activities2009 Actuals and Estimated 2010 and 2011

Personnel Compensation:	<u>2009</u>	<u>2010</u>	<u>2011</u>
Washington, D.C. ....	\$2,432,743	\$2,491,000	\$2,525,874
Field .....	0	0	0
11 Total personnel compensation .....	2,432,743	2,491,000	2,525,874
12 Personnel benefits .....	669,412	685,477	699,872
13 Benefits for former personnel .....	1,147	1,147	1,171
Total pers. comp. & benefits .....	3,103,302	3,177,624	3,226,917

**Other Objects:**

21 Travel .....	250,335	253,089	256,632
22 Transportation of Things .....	1,259	1,273	1,291
23.1 Rent to GSA.....	1,666	1,684	1,708
23.2 Rent Paid to others .....	9,162	9,263	9,392
23.3 Communications, Utilities, etc. ....	72,461	73,258	74,284
24 Printing and Reproduction .....	33,532	33,901	34,375
25.1 Advisory & assist. Services .....	41,119	41,571	42,153
25.2 Other Services .....	709,002	716,801	726,836
25.3 Purchases of G&S from Govt. ....	9,367	9,470	9,603
25.4 Operation and Maintenance of facilities ....	45,798	46,302	46,950
25.5 Research and Development Contracts .....	799,372	808,165	819,479
25.6 ADP Services and Supplies (NFC) .....	3,898	3,941	3,996
25.7 Operation and maintenance of equipment ...	12,244	12,379	12,552
25.8 Subsistence and support of persons .....	9,036	9,135	9,263
26 Supplies .....	55,388	55,997	56,781
31 Equipment .....	39,375	39,808	40,365
41 Grants, Contracts, etc. ....	120,000,259	125,728,339	89,501,423
43 Interest Prompt Payment .....	488	0	0
Total, other objects .....	122,093,761	127,844,376	91,647,083
Total Obligations .....	125,197,063	131,022,000	94,874,000

**Position Data:**

Average Salary, ES .....	\$166,107	\$169,429	\$172,987
Average Salary, GS .....	\$92,868	\$94,726	\$96,715
Average Grade, GS .....	11.8	11.8	11.8

**NATIONAL INSTITUTE OF FOOD AND AGRICULTURE****STATUS OF PROGRAM****INTEGRATED ACTIVITIES:****Current Activities:**

1. Programs currently funded under the Integrated Activities account are Water Quality, Food Safety, Regional Pest Management Centers (formerly Pesticide Impact Assessment), Crops at Risk from Food Quality Protection Act (FQPA) Implementation, Food Quality Protection Act Risk Mitigation Program for Major Food Crop Systems, Methyl Bromide Transition Program, and Organic Transition Program. Per Section 406 of AREERA, grants are awarded on a competitive basis to support integrated, multifunctional agricultural research, extension, and education activities. The International Science and Education Grants, Critical Issues, and Regional Rural Development Centers programs are administered under this account. The International Science and Education Grants program is conducted under the authority of Section 1459A of the National Agricultural Research, Extension, and Teaching Policy Act of 1977, Public Law 95-113. The Critical Issues and Regional Rural Development Centers programs are conducted under the authority of Section 2(c)(1)(B) of Public Law 89-106, as amended (7 U.S.C. 450i(c)), which enables the agency to support research, extension or education activities.
2. **Food and Agriculture Defense Initiative (FADI)**. The FADI Program under the authority of Section 1484 of the Farm Security and Rural Investment Act of 2002 also is funded under this account. This program provides support for an unified network of public agricultural institutions to identify and respond to high risk biological pathogens in the food and agricultural system. The network is used to increase the ability to protect the Nation from disease threats by identifying, containing, and minimizing disease threats. The funds also are used to support the Extension Disaster Education Network, and maintain and enhance pest risk management tools for Asian soybean rust and other pathogens of legumes.
3. **Specialty Crop Research Initiative (SCRI) Program**. The SCRI Program addresses the critical needs of the specialty crop industry by developing and disseminating science-based tools to address the needs of specific crops and their regions. This program will give priority to projects that are multi-State, multi-institutional, or trans disciplinary; and include explicit mechanisms to communicate results to producers and the public. Projects will focus on research in plant breeding, genetics, and genomics to improve crop characteristics; to identify and address threats from pests and diseases (including threats to pollinators); to improve production efficiency, productivity, and profitability over the long term; new innovations and technology (including improved mechanization and technologies that delay or inhibit ripening); and methods to prevent, detect, monitor control, and respond to potential food safety hazards in the production and processing of specialty crops.

**Selected Examples of Recent Progress:**

1. **Water Quality Program**. The University of Nebraska created an on-demand access to the Nation's best science-based resources that is responsive to priority and emerging water quality issues associated with animal agriculture at the Livestock and Poultry Environmental Learning Center (LPELC). Results show 50 percent of livestock and poultry producers reported that they implemented one or more new practices to protect air or water quality as a result of information they obtained from the LPELC, and 58 percent of the private sector or technical service providers reported they made a recommendation that benefited a client. In addition, at least 70 percent of the county extension agents, extension specialists, and Natural Resources Conservation Service specialists use the LPELC.

2. **Food Safety Program.** The University of Tennessee Extension has developed a food safety curriculum for middle school students. Food Safety in the Classroom provides effective food safety education to young consumers through an interdisciplinary curriculum that is integrated with state curriculum standards for core subject areas. The latest year of this project focused on expansion of the program to schools throughout Tennessee and neighboring states in the southeastern region of the U.S. and the development of a strong sustainability model. A total of 1,469 students, 52 teachers, and 3 extension agents participated in the program over the past year. These teachers were from schools located in Tennessee, Georgia, Kentucky, North Carolina and Virginia. Analysis of the data shows that the curriculum is highly effective at raising student knowledge and in students' food handling behaviors. Six weeks after implementation students retained 89 percent of their total knowledge gain.
  
3. **Crops at Risk from FQPA Implementation Program.** Research at Michigan State University led to improved recommendations and control of mummy berry and anthracnose in blueberry fields in Michigan. Updated recommendations and new information were made available to blueberry growers in Michigan and other states through weekly electronic Integrated Pest Management (IPM) updates, extension articles, the Blueberry IPM Scout Training Course, bi-weekly field meetings, the Michigan Fruit Management Guide, and several new fact sheets (Mummy berry, anthracnose). The information gathered in this project also was used for a second edition of the Pocket Guide to IPM Scouting in Highbush Blueberries, and it was translated in Spanish as well.
  
4. **FQPA Risk Mitigation Program.** Kansas State University is providing stake holders at all levels of grain production, processing, marketing and utilization continuum a better understanding of insect pest problems. Research has determined the efficacy of high doses of ozone for controlling all life stages of red flour beetle, Indian meal moth, and adult maize weevils. These dosages are now being used for field testing of a continuous flow grain system. Previous work on pheromone-based mating disruption to control pest populations of stored-product moths led to the Environmental Protection Agency registration of the active ingredient and various product formulations. The outcome of this project is that at least three different mating disruption products are available commercially and are being adopted by sectors of the food and pest control industries. The resulting impact is elimination of chemical insecticide treatments in these facilities and consumer acceptance of food protected with safe biologically based methods.
  
5. **Food and Agriculture Defense Initiative (FADI) Program.** The National Animal Health Laboratory Network (NAHLN) is a national network of non-Federal public animal diagnostic laboratories; under the leadership of NIFA, Animal and Plant Health Inspection Service (APHIS), and the American Association of Veterinary Laboratory Diagnosticians. It has 12 core laboratories who receive NIFA support; which are located at Cornell University (New York), Louisiana State University, University of Georgia, Texas A&M, University of Wisconsin, Iowa State University, Colorado State University, Washington State University, University of California at Davis, University of Arizona, North Carolina Department of Agriculture and Consumer Services, and Florida Department of Agriculture and Consumer Services. In addition to these core laboratories, NIFA provides a reduced amount of funding for laboratories in 16 other States: Oregon, Utah, New Mexico, Wyoming, South Dakota, Nebraska, Kansas, Minnesota, Mississippi, Tennessee, Indiana, Michigan, Kentucky, Ohio, Pennsylvania, and New Jersey. Animal disease-detection criteria have been developed for the following nine high-consequence diseases: *Foot-and-Mouth Disease*, *Exotic Newcastle Disease*, *Classical Swine Fever* (or hog cholera), *High Pathogen Avian Influenza*, *Low Pathogen Avian Influenza*, *Bovine Spongiform Encephalopathy*, *Scrapie*, *Chronic Wasting Disease*, and *Rift Valley Fever*. *Rift Valley Fever*, added in fiscal year (FY) 2008, is a fever-causing disease that affects livestock (including cattle, buffalo, sheep, and goats) and humans. In FY 2008, NAHLN personnel participated in diagnostic training to develop the diagnostic capability for this disease. In FY 2009 NAHLN continued to work on additional disease-detection criteria for high-consequence diseases. NAHLN is part of a national strategy to coordinate the Nation's Federal, State and university laboratory resources.

The National Plant Diagnostic Network (NPDN) is a 50 State network of land grant university based plant diagnostic laboratories. The network is led by diagnostic laboratory centers at Cornell University (New York), University of Florida, Kansas State University, Michigan State University, and University of California at Davis. These institutions receive direct funding from NIFA and provide support to the other land grant plant diagnostic laboratories in their region through subcontracts, training, and leadership. Because of this, plant laboratories in every State receive Federal funding and other support from the five NPDN centers. All 50 States and many U.S. territories are connected to the NPDN through digital distance diagnostics, used throughout the Nation to speed early detection of high consequence plant pathogens and solve other agricultural problems. This web-based diagnostics system allows plant diagnosticians in one location to transmit a digital image across the country to someone with special expertise. Plant disease (and insect) detection criteria have been developed for *soybean rust*, *sudden oak death*, *Ralstonia stem rot*, *plum pox virus*, *pink hibiscus mealybug*, *potato wart*, *huanglongbing (citrus greening)*, *Potato Cyst Nematode*, *Late Blight and Beet Curly Top*. *Late Blight and Beet Curly Top* diseases were added in Fiscal Year 2009. The laboratory network partnered with other cooperative extension officials to quickly and efficiently conduct a widespread outreach and detection campaign on tomato and potato Late Blight, which became a significant problem in 2009 for the first time since the network was established. A new diagnostic test was implemented for Beet Curly Top, a disease spread by insects that affects tomatoes, sugar beets, table beets, beans, and cucurbits.

NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

OUTREACH AND TECHNICAL ASSISTANCE FOR  
 SOCIALLY DISADVANTAGED FARMER  
 OR RANCHERS, SECTION 14004

Project Statement by Program  
 (On basis of Appropriation)

Project	2009 Actual		2010 Estimated		Increase or Decrease	2011 Estimated	
	Amount	Staff Years	Amount	Staff Years		Amount	Staff Years
<b>Mandatory Program</b>							
Outreach and Technical Assistance for Socially Disadvantaged Farmers and Rancher Sec. 14004.....	\$15,000,000		--		--	--	
<b>Total Available or Estimate .....</b>	<b>15,000,000</b>		<b>0</b>		<b>--</b>	<b>0</b>	

NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

OUTREACH AND TECHNICAL ASSISTANCE FOR  
 SOCIALLY DISADVANTAGED FARMER  
 OR RANCHERS, SECTION 14004

Project Statement by Program  
 (On basis of Available Funds)

Project	2009 Actual		2010 Estimated		Increase or Decrease	2011 Estimated	
	Amount	Staff Years	Amount	Staff Years		Amount	Staff Years
<b>Mandatory Program</b>							
Outreach and Technical Assistance for Socially Disadvantaged Farmers and Rancher Sec. 14004.....	\$14,990,531		--		--	--	
Carryover .....			9,469				
Total Obligations Estimate.....	14,990,531		9,469		-9,469	0	
Available, end of year.....	9,469		--			--	
Total Available or Estimate.....	15,000,000						

## NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

TABLE 1C- FISCAL YEAR 2009  
SECTION 14004,OUTREACH AND TECHNICAL ASSISTANCE FOR SOCIALLY DISADVANTAGED FARMER OR RANCHERS

<b>Outreach for Socially Disadvantaged Farmers</b>		
<u>STATE</u>	<u>Farmers</u>	
ALABAMA	\$ 900,000	
ARIZONA	599,946	TABLE 2C-FISCAL YEAR 2010
ARKANSAS	600,000	SECTION 14004,OUTREACH AND TECHNICAL ASSISTANCE FOR SOCIALLY DISADVANTAGED FARMER OR RANCHERS
CALIFORNIA	396,487	
DISTRICT OF COLUMB	299,258	
FLORIDA	300,000	FEDERAL ADMIN
GEORGIA	600,000	\$0
KENTUCKY	300,000	
LOUISIANA	300,000	UNDISTRIBUTED
MARYLAND	300,000	<u>9,469</u>
MASSACHUSETTS	300,000	
MICHIGAN	600,000	TOTAL
MINNESOTA	895,561	<u>\$9,469</u>
MISSISSIPPI	700,000	SECTION 14004,OUTREACH AND TECHNICAL ASSISTANCE FOR SOCIALLY DISADVANTAGED FARMER OR RANCHERS
MISSOURI	300,000	TABLE 3C- FISCAL YEAR 2011
MONTANA	600,000	
NEVADA	300,000	
NEW MEXICO	900,000	
NEW YORK	525,500	
NORTH CAROLINA	575,800	
OKLAHOMA	300,000	FEDERAL ADMIN
OREGON	300,000	\$0
PUERTO RICO	300,000	
SOUTH CAROLINA	300,000	UNDISTRIBUTED
TENNESSEE	300,000	-
TEXAS	1,198,706	
VIRGINIA	299,880	TOTAL
WASHINGTON	600,000	<u>\$0</u>
WISCONSIN	300,000	
PEER PANEL/CSAA	<u>58,862</u>	
SUBTOTAL	<u>14,250,000</u>	
FEDERAL ADMIN	<u>750,000</u>	
Subtotal, Obligations	15,000,000	
UNOBLIGATED	<u>0</u>	
<b>TOTAL</b>	<u><b>15,000,000</b></u>	

## NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

CLASSIFICATION BY OBJECTSSection 14004 Activities2009 Actuals and Estimated 2010 and 2011

Personnel Compensation:	<u>2009</u>	<u>2010</u>	<u>2011</u>
Washington, D.C. ....	\$372,648	\$0	\$0
Field .....	0	0	0
11 Total personnel compensation .....	372,648	0	0
12 Personnel benefits .....	102,509	0	0
13 Benefits for former personnel .....	175	0	0
Total pers. comp. & benefits .....	475,332	0	0
<b>Other Objects:</b>			
21 Travel .....	38,331	0	0
22 Transportation of Things .....	192	0	0
23.1 Rent to GSA.....	255	0	0
23.2 Rent Paid to others .....	1,403	0	0
23.3 Communications, Utilities, etc. ....	11,095	0	0
24 Printing and Reproduction .....	5,135	0	0
25.1 Advisory & assist. Services .....	6,296	0	0
25.2 Other Services .....	91,415	0	0
25.3 Purchases of G&S from Govt. ....	1,433	0	0
25.4 Operation and Maintenance of facilities .....	7,010	0	0
25.5 Research and Development Contracts .....	122,450	0	0
25.6 ADP Services and Supplies (NFC) .....	597	0	0
25.7 Operation and maintenance of equipment ...	1,875	0	0
25.8 Subsistence and support of persons .....	1,382	0	0
26 Supplies .....	8,479	0	0
31 Equipment .....	6,030	0	0
41 Grants, Contracts, etc. ....	14,221,216	9,469	0
43 Interest Prompt Payment .....	74	0	0
Total, other objects .....	14,524,668	9,469	0
Total Obligations .....	15,000,000 a/	9,469 b/	0

## Position Data:

Average Salary, ES .....	\$166,107	\$169,429
Average Salary, GS .....	\$92,868	\$94,726
Average Grade, GS .....	11.8	11.8

a/ Includes Farm Bill mandatory funds for Section 14004 Outreach and Technical Assistance for Socially Disadvantaged Farmers and Ranchers for FY 2009 in the amount of \$15,000,000.

b/ This is carryover from FY 2009. This account is moving to the Office of Outreach in FY 2010.

**NATIONAL INSTITUTE OF FOOD AND AGRICULTURE**

**STATUS OF PROGRAM**

**SECTION 2501, OUTREACH AND TECHNICAL ASSISTANCE FOR SOCIALLY DISADVANTAGED FARMERS AND RANCHERS ACTIVITIES:**

**Current Activities:**

This program helps African American, Tribal, Hispanic and other minority farmers and ranchers from socially disadvantaged groups participate in specific USDA loan, conservation, technical assistance, and related programs. The program enhances the ability of minority farmers and ranchers to operate farms and ranches independently and to produce income adequate to service debt, maintain operations, and provide a reasonable lifestyle. The program provides grants to educational institutions and community-based organizations to encourage and assist socially disadvantaged farmers and ranchers to own and operate farms and ranches, to participate in USDA agricultural programs, and to become an integral part of the agricultural community.

**Selected Examples of Recent Progress:**

As a result of outreach activities at the University of California, small-scale growers, many of whom speak Spanish, Hmong, or Chinese as their primary language, gained access to results of applied research on specialty crops, business management skills, relevant market analysis, and irrigation/water quality management in agriculture. Information was disseminated through ongoing personal consultations, workshops, classes, field days, radio and printed newsletters and other printed materials. The diversity of information delivery means that small-scale producers in the five regions covered by the Small Farm Program gained access to one-on-one consultation when necessary. Workshops and classes typically attracted between 20 and 60 producers, while field days and conferences reached 100 or more producers during this period.

University of Arkansas at Pine Bluff assisted approximately 20 individuals with developing financial plans for their farm operations. This resulted in eight producers using their plans to obtain \$763,000 in USDA Operating Loans; six producers restructured their debts, and five producers developed plans to determine the feasibility of adding different alternatives to their operation. Many of these producers were assisted in determining crop insurance premium cost, breakeven prices, and in developing marketing plans for their grain crops. Using conservation programs in central Arkansas, approximately eight environmental quality incentive program contracts were awarded to socially disadvantaged producers for a total of \$683,575. The producers utilize this support mostly to level land to improve drainage and increase irrigation efficiency.

**NATIONAL INSTITUTE OF FOOD AND AGRICULTURE**

**Summary of Budget and Performance  
Statement of Agency Goals and Objectives**

The mission of the NIFA is to advance knowledge for agriculture, the environment, human health and well-being, and communities. It achieves this mission through two functions:

- Program leadership to identify, develop, and manage programs to sponsor university-based and other institutional education, research, and extension; and
- Fair, effective, and efficient administration of Federal assistance implementing education, research, and extension awards and agreements.

NIFA has six strategic goals and fourteen strategic objectives that contribute to four of the Secretary’s Strategic Goals and provide research, education, and extension to support the Department in meeting six High Performance Priority Goals (HPPGs).

USDA Strategic Goal/Objective	Agency Strategic Goal	Agency Objectives	Programs that Contribute	Key Outcome
<p><b>USDA Strategic Goal:</b> Assist rural communities to create prosperity so they are self-sustaining, repopulating and economically thriving.</p>	<p><b>Agency Goal:</b> Enhance the Competitiveness and Sustainability of Rural and Farm Economies</p>	<p><u>Objective 2.1:</u> Provide Research, Education, and Extension to Expand Domestic Market Opportunities</p>	<p>Extension Research Integrated Higher Education</p>	<p><u>Key Outcome 2.1:</u> Expanded science-based knowledge and technologies to generate high-quality products and processes by: (1) increasing knowledge of bioenergy and biomass conversion, (2) creating new commercially viable and marketable alternative crops, and alternative markets for non-food products from existing crops, and (3) establishing new integrated research and extension programs and multi-disciplinary graduate education training programs.</p>

		<p><u>Objective 2.2:</u> Provide Research, Education, and Extension to Increase the Efficiency of Agricultural Production and Marketing Systems</p> <p><u>Objective 2.3:</u> Provide Risk Management and Financial Tools to Farmers and Ranchers</p>	<p>Extension Research Integrated Higher Education</p>	<p><u>Key Outcome 2.2:</u> Increased efficiency of the agricultural production system by: (1) expanding information to model feed utilization for animal species, (2) releasing new or improved varieties or germplasm with enhanced pest or disease resistance, (3) further understanding the biological role of gene sequences in plants, animals, microbes and insects, (4) strengthening masters degree level courses in the food and agricultural sciences, particularly at minority-serving institutions, (5) increasing the number of minority students participating in the workforce by funding minority-serving projects at Hispanic serving institutions, 1890 institutions, 1994 institutions, Alaska-native serving, native-Hawaiian serving institutions, and (6) increasing the number of socially disadvantaged minority farmers and ranchers who are knowledgeable, eligible, and participating in USDA farm programs.</p> <p><u>Key Outcome 2.3:</u> Increased producers' knowledge of principles and techniques of risk management.</p>
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	<p><b>Agency Goal:</b> Support Increased Economic Opportunities and Improved Quality of Life in Rural America</p>	<p><u>Objective 3.1:</u> Expand Economic Opportunities in Rural America by Providing Research, Education, and Extension to Create Opportunities for Growth</p> <p><u>Objective 3.2:</u> Provide Research, Education, and Extension to Improve the Quality of Life in Rural Areas</p>	<p>Extension Research Integrated Higher Education</p>	<p><u>Key Outcome 3.1:</u> Expanded economic opportunities in Rural America and increased knowledge pertaining to economic diversification, community planning, service infrastructure, local government, youth/adult workforce planning, and civic engagement through innovative integrated research and extension projects targeted to regional business, economic and business development.</p> <p><u>Key Outcome 3.2:</u> Increased knowledge among county based staff and community leadership in order to provide research-based practices to encourage appropriate community capitol development which enhances business and economic development, the availability of appropriate education and health services, transportation networks and the vibrant community connections. Electronic deployment of information to increase the social, cultural, human and economic capitol available for more nimble and creative community responses to needs.</p>
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	<p><b>Agency Goal:</b> Enhance Protection and Safety of the Nation's Agriculture and Food Supply</p>	<p><u>Objective 4.2:</u> Develop and Deliver Research, Education, and Extension to Reduce the Number and Severity of Agricultural Pest and Disease Outbreaks</p>	<p>Extension Research Integrated Higher Education</p>	<p><u>Key Outcome 4.2:</u> Expanded science-based information and technologies and reduced number and severity of agricultural pest and disease outbreaks through: (1) connection and data exchange among national plant and animal disease diagnostic networks, (2) increased resource efficiency and decreased economic risk regarding the adoption of sustainable pest management tactics, (3) developed capacity to minimize or mitigate occupational and non-occupational human health risks associated with pest management, and (4) increased capacity in minimizing or mitigating environmental risk associated with pest management.</p>
<p><b>USDA Strategic Goal:</b> Ensure our national forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing our water resources.</p>	<p><b>Agency Goal:</b> Protect and Enhance the Nation's Natural Resource Base and Environment</p>	<p><u>Objective 6.1:</u> Ensure Clean, Abundant Water And Clean, Healthy Air</p> <p><u>Objective 6.2:</u> Enhance Soil Quality to Maintain Productive Working Lands</p> <p><u>Objective 6.3:</u> Protect Enhance, and Manage Forests and Rangelands</p> <p><u>Objective 6.4:</u> Protect and Enhance Wildlife Habitat to Benefit Desired, at-Risk and Declining Species</p>	<p>Research Higher Education Extension Integrated</p>	<p><u>Key Outcome 6:</u> Expanded and disseminated science-based knowledge and information for management of the nation's natural resources and environment, including soil, air and water, in agricultural, forest, and range working lands and ecosystems.</p>

<p><b>USDA Strategic Goal:</b> Help America promote agricultural production and biotechnology exports as America works to increase food security.</p>	<p><b>Agency Goal1:</b> Enhance International Competitiveness of American Agriculture</p>	<p><u>Objective 1.2:</u> Support International Economic Development and Trade Capacity Building</p>	<p>Extension Research Integrated Higher Education</p>	<p><u>Key Outcome 1.2:</u> Expanded international economic development and trade capacity building through: (1) partnerships between U.S. and counterpart faculty in developing or transitioning countries to strengthen science applications and (2) technical assistance provided to these countries to support market and agricultural sector development.</p>
	<p><b>Agency Goal 3:</b> Support Increased Economic Opportunities and Improved Quality of Life in Rural America</p>	<p><u>Objective 3.1:</u> Expand Economic Opportunities in Rural America by Providing Research, Education, and Extension to Create Opportunities for Growth</p>	<p>Extension Research Integrated Higher Education</p>	<p><u>Key Outcome 3.1:</u> Expanded economic opportunities in Rural America and increased knowledge pertaining to economic diversification, community planning, service infrastructure, local government, youth/adult workforce planning, and civic engagement through innovative integrated research and extension projects targeted to regional business, economic and business development.</p>
<p><b>USDA Strategic Goal:</b> Ensure that all of America’s children have access to safe, nutritious, and balanced meals.</p>	<p><b>Agency Goal:</b> Enhance the Competitiveness and Sustainability of Rural and Farm Economies</p>	<p><u>Objective 2.1:</u> Provide Research, Education, and Extension to Expand Domestic Market Opportunities</p>	<p>Extension Research Integrated Higher Education</p>	<p><u>Key Outcome 2.1:</u> Expanded science-based knowledge and technologies to generate high-quality products and processes by: (1) increasing knowledge of bioenergy and biomass conversion, (2) creating new commercially viable and marketable alternative crops, and alternative markets for non-food products from existing crops, and (3) establishing new integrated research and extension programs and multi-disciplinary graduate education training programs.</p>

	<p><b>Agency Goal:</b> Support Increased Economic Opportunities and Improved Quality of Life in Rural America</p>	<p><u>Objective 3.2:</u> Provide Research, Education, and Extension to Improve the Quality of Life in Rural Areas</p>	<p>Extension Research Integrated Higher Education</p>	<p><u>Key Outcome 3.2:</u> Increased knowledge among county based staff and community leadership in order to provide research-based practices to encourage appropriate community capitol development which enhances business and economic development, the availability of appropriate education and health services, transportation networks and the vibrant community connections. Electronic deployment of information to increase the social, cultural, human and economic capitol available for more nimble and creative community responses to needs.</p>
	<p><b>Agency Goal:</b> Enhance Protection and Safety of the Nation’s Agriculture and Food Supply</p>	<p><u>Objective 4.1:</u> Reduce the Incidence of Foodborne Illnesses and Contaminants Through Research, Education, and Extension</p>	<p>Extension Research Integrated Higher Education</p>	<p><u>Key Outcome 4.1:</u> Reduced incidence or prevalence of food borne illnesses and contaminants through increased knowledge and/or the development of mitigation, intervention, or prevention strategies via research or integrated research, education, and extension projects in the following food safety areas: pre-harvest food production and transportation, post-harvest processing and distribution, retail preparation and distribution, and consumer preparation, consumption, and behavior.</p>
	<p><b>Agency Goal:</b> Improve the Nation’s Nutrition and Health</p>	<p><u>Objective 5.1:</u> Ensure Access to Nutritious Food</p> <p><u>Objective 5.2:</u> Promote Healthier Eating Habits and Lifestyles</p>	<p>Extension Research Integrated Higher Education</p>	<p><u>Key Outcome 5.1:</u> New knowledge that clarifies dietary health relationships in order to support better dietary recommendations and improved food products.</p>

**USDA Strategic Goal:** Assist rural communities to create prosperity so they are self-sustaining, repopulating and economically thriving.

**NIFA Strategic Objective 2.1:** Provide research, education, and extension to expand domestic market opportunities

**NIFA Strategic Objective 2.2:** Provide research, education, and extension to increase the efficiency of agricultural production and marketing systems

**NIFA Strategic Objective 2.3:** Provide risk management and financial tools to farmers and ranchers

**NIFA Strategic Objective 3.1:** Expand economic opportunities in rural America by providing research, education, and extension to create opportunities for growth

**NIFA Strategic Objective 3.2:** Provide research, education, and extension to improve the quality of life in rural areas

**NIFA Strategic Objective 4.2:** Develop and deliver research, education, and extension to reduce the number and severity of agricultural pest and disease outbreaks

**Key Outcome 2.1:** Expanded science-based knowledge and technologies to generate high-quality products and processes by: (1) increasing knowledge of bioenergy and biomass conversion, (2) creating new commercially viable and marketable alternative crops, and alternative markets for non-food products from existing crops, and (3) establishing new integrated research and extension programs and multi-disciplinary graduate education training programs.

**Long-term Performance Measure 2.1:** Cumulative number of expanded commercially adaptable processes that convert biomass to fuels through the development of cost effective biochemical or thermochemical technologies, and used commercially.

**Selected Past Accomplishments toward Achievement of the Key Outcome:**

Canola is one of the world's most oil-dense crops. Scientists believe canola has the potential to play a dominant role in unclenching the grip that imported petroleum fuels have, as well as offering growers new markets for a high-value crop. In 2008, 200 acres of canola were planted by farmers and crushing and biodiesel processing facilities were established at the Michigan State University Biorefinery Training Facility. The crusher can smash 1 ton of seeds per day, enough for about 100 gallons of biodiesel. The first year of research demonstrated that canola could be grown, processed and made into biodiesel with a profit return for farmers.

A team of scientists developed a new chemical reaction that converts waste biomass lignin into high-value chemical components that will make bio-refineries more efficient and effective. The scientists believe this new reaction will yield high-value, renewable, chemical components derived from lignin. The new products may be used in a variety of products that are currently dependent on petroleum-based resources, as well as improve modern ethanol conversion programs.

The automotive giant General Motors and the renewable energy company Coskata announced last year their plans to collaborate on producing "next generation ethanol" using a process based on technology developed by the Oklahoma State University (OSU) Biofuels Team. OSU's research to convert biomass to ethanol and chemicals has been supported by NIFA since 2000. The OSU Biofuels Team developed a gasification-bioconversion process that utilizes all of the plant biomass, including the lignin. The process is more cost efficient than other methods of ethanol production because it can utilize all portions of a variety of biomass and feedstock material such as grasses, crop residues, processing plant byproducts, and municipal solid waste. According to Coskata, the process has the potential to yield more than 100 gallons of ethanol per dry ton of feedstock. The process has a net positive energy, uses less than one gallon of fresh water per gallon of ethanol produced, and does not compete with food or animal feed for the production of ethanol.

Selected Accomplishments Expected at the FY 2011 Proposed Resource Level: Funding will be used to (1) generate original fundamental knowledge on the development of new processes and new or improved food and nonfood products through basic research, including research on biofuels and on functional food nutrition; (2) develop new processes and value added food and nonfood products through applied research; (3) conduct outreach programs for the commercialization of new processes and products developed and demonstrate the use of new products; and (4) provide leadership in the delivery of research-based knowledge through extension, outreach, and information dissemination to strengthen the capacity of public and private decision makers impacting agriculture.

Efficiency Measure 2.1(a): Proposal Review Time in days.

Efficiency Measure 2.1(b): Cumulative Dollars Saved for Grant Review.

**Key Outcome 2.2:** Increased efficiency of the agricultural production system by: (1) expanding information to model feed utilization for animal species, (2) releasing new or improved varieties or germplasm with enhanced pest or disease resistance, (3) further understanding the biological role of gene sequences in plants, animals, microbes and insects, (4) strengthening masters degree level courses in the food and agricultural sciences, particularly at minority-serving institutions, (5) increasing the number of minority students participating in the workforce by funding minority-serving projects at Hispanic serving institutions, 1890 institutions, 1994 institutions, Alaska-native serving, native-Hawaiian serving institutions, and (6) increasing the number of socially disadvantaged minority farmers and ranchers who are knowledgeable, eligible, and participating in USDA farm programs.

Long-term Performance Measure 2.2: Cumulative number of new crops that have been developed and used commercially.

Selected Past Accomplishments toward Achievement of the Key Outcome:

An international consortium of researchers has published the genome of domestic cattle, the first livestock mammal to have its genetic blueprint sequenced and analyzed. The landmark research will bolster efforts to produce better beef and dairy products and lead to a better understanding of the human genome. Understanding the cattle genome and having the sequence will allow researchers to understand the genetic basis for disease in domestic cattle and could result in healthier production of meat and milk while reducing producers' dependence on antibiotics.

U.S. honeybees are important agricultural workers, pollinating an estimated \$15 billion worth of fruit, seed and fiber crops annually. As their population dwindles for unknown reasons, honeybees and the U.S. beekeeping industry are in a precarious position. A project team in Arizona developed a nutritional supplement, called MegaBee™, which is a nutritious bee smoothie containing protein, lipids, balanced amino acids, and other nutrients that support healthy hive development. The team reports that colonies fed MegaBee™ retained 30 percent more adult bees and more efficiently converted food to brood (the young bees), resulting in greater adult bee populations and colonies better able to do their job of pollination.

New Jersey scientists produced the fifth generation of tetraploid oysters and continued selection for disease resistance and fast growth. Tetraploid oysters have been used for commercial production of triploids. Triploid oysters produced from tetraploids are 100 percent pure and grow significantly faster under normal diploids, and have become an important product of the oyster culture industry. The genetic markers and maps have provided useful tools to the research community and are being used to identify and manage oyster resources. Oyster survival rates in the Delaware Bay have increased more than twofold, preserving a regional fishery and thousands of jobs and the restored harvest has had a direct impact on the economy of the region with a return of \$40 for each \$1 spent.

In Colorado, workers are demonstrating to farmers that conventional soybeans yield 41.66 bushels per acre at a cost of \$244.16 per acre while the round-up ready soybeans produced 52 bushels per acre at a cost of \$203.26 per acre. The average price earned for soybeans was \$7.75 per bushel. The net income realized for the conventional beans was \$78.71 per acre while that for the round-up ready soybeans was \$199.74 per

acre. Thus, these demonstrations showed a farmer could increase his income by 2.5 times while using less chemicals and making fewer trips across the field.

Sugarbeet growers in Minnesota and North Dakota produce approximately 60 percent of the U.S. beet sugar. The total business activity of the sugarbeet industry in Minnesota and North Dakota is approximately \$3 billion. Cercospora leaf spot is the most serious leaf disease of sugarbeet. Scientists at the University of Minnesota and North Dakota State University have reduced the average number of fungicide application per acre on sugarbeet from 3.7 in 1998 to 2.4 in 2007. Growers saved over \$18 million per year in reduced fungicide applications. Last year, 94 percent of growers indicated excellent or good disease control and 6 percent reported fair disease control using fungicides as recommended.

The Center for Economic Analysis at Michigan State University has published two reports highlighting the value of the IR-4 Project. In 2007, they reported that the IR-4 Food Use Program contributes \$7.7 billion annually to the U.S. Gross Domestic Product (GDP). A 2008 report found the IR-4 Ornamental Program provides an additional \$1.2 billion to the U.S. GDP.

North Dakota State University researchers have released new cultivars including Cavalier soybean, Avalanche navy bean, Northern Flare sugar maple, Sisseton sugar maple, Fireworks amur maple, Northland Boston ivy, and Northern Debut little leaf linden. The estimated dollar value of these new cultivars to North Dakota alone is \$35 Million.

Selected Accomplishments Expected at the FY 2011 Proposed Resource Level: Functional genomics of corn and other key crops will result in:

- Increased training of young scientists at the interface of modern sequencing technologies and bioinformatics, and promote increased participation by members of underrepresented groups;
- Increased the efficiency of breeding programs;
- Streamlined delivery of new traits, e.g. higher photosynthetic activity, and increased fertilizer utilization;
- Discovery and enhancement of the innate properties of corn, e.g. drought tolerance, disease resistance, and hybrid vigor;
- Recognition and understanding of the traits that will allow corn to be an ideal crop for food and feed, e.g. low phytate corn, improved amino acid profile, control of mycotoxins; fuel and industrial uses, e.g. quality and quantity; and
- Decreased adverse environmental impact of production farming, e.g. water quality/quantity, pesticide application.

Measurements of feed kinetics and mathematical modeling will result in:

- Increased efficiency of production systems;
- Expanded use of dynamic models that account for excretion of excess nutrients, fluctuations in body condition (body fat) of beef and dairy cows;
- Decreased environmental impact of production farming (e.g., decreased nitrogen and phosphorus); and
- A foundation for the next generation of nutrition modelers, which will increase the accuracy of prediction of nutrient availability and aid in reducing excretion of nutrients.

Increased funding for the Sustainable Agriculture Research and Education program (SARE) will support systems research and farmer/rancher projects that improve soil quality and carbon sequestration, save energy, and mitigate climate change. For example, 79 percent of past farmer-rancher grantees in the West experienced improved soil quality, and 41 percent reported increased net income; an innovative crop/livestock system in Texas used 25 percent less water and 40 percent nitrogen while improving profitability by \$30 or more per acre.

A new endowment fund for Hispanic-Serving Agricultural Colleges and Universities (HSACU's) will launch the production of a skilled and marketable Hispanic student population for employment in the food

and agriculture sector. Over the next ten years, the Endowment will lead to significant and measurable enhanced competence and marketability of Hispanic students in the food and agricultural sciences.

Efficiency Measure 2.2(a): Proposal Review Time in days.

Efficiency Measure 2.2(b): Cumulative Dollars Saved for Grant Review.

**Key Outcome 2.3**: Increased producers' knowledge of principles and techniques of risk management.

Long-term Performance Measure 2.3: Benefits to farmers changing their risk management behavior per the net dollar cost of the Risk Management Education program.

Selected Past Accomplishments toward Achievement of the Key Outcome:

The Agriculture Risk Education Library (AREL) has had more 1,000,000 individual users since its inception. Over 6,000,000 documents have been viewed or downloaded. Use has grown from 3,000 individual users per month in 2001 to over 20,000 individual users per month in 2008. AREL provides a single source of information to producers, educators, media, and other agricultural professionals. During the past year, methodology was created to allow individual educators and researchers to upload their educational materials and categorize them within the Libraries table of contents.

In the Western Region, 800 California Hmong learned how to comply with state agricultural labor regulations; 23 California Hispanic producers made changes to bring their operations into compliance with state agricultural labor regulations; 129 California sheep producers completed a Livestock Risk Protection (LRP) level 1 plan and 25 made application for LRP-lamb insurance; 21 Washington producers completed a value-added enterprise evaluation and 18 of those invested in production of a value-added product; 24 forest landowners completed baseline forest inventories and also developed forest stewardship plans; 36 forest owners implemented income diversification strategies; 40 Oregon producers committed to developing a formal marketing plan designed to lengthen the marketing season; 80 producers contacted specific outlets (restaurants, retailers, and customers) about extending the marketing season; and 30 producers prepared a detailed production and marketing plan for adding season extension activities.

Selected Accomplishments Expected at the FY 2011 Proposed Resource Level:

The Agriculture Risk Management Education Competitive Grants Programs will fund four regional Risk Management Education (RME) centers nationwide; and an Electronic Risk Management Education Electronic Support Center (RMEESC). The Regional RME Centers are expected to address the risk management needs of agricultural producers and their families particularly with regard to the following five risk management categories: 1) production risk; 2) price or marketing risk; 3) human resource risk; 4) legal (including liability and environmental) risk; and 5) financial risk.

Efficiency Measure 2.3(a): Proposal Review Time in days.

Efficiency Measure 2.3(b): Cumulative Dollars Saved for Grant Review.

**Key Outcome 3.1**: Expanded economic opportunities in Rural America and increased knowledge pertaining to economic diversification, community planning, service infrastructure, local government, youth/adult workforce planning, and civic engagement through innovative integrated research and extension projects targeted to regional business, economic and business development.

HPPG Measure: NIFA provides research, extension, and education to support USDA work to increase the wealth of rural communities by concentrating and strategically investing in five regions, resulting in the creation of strong local and regional economies, with a particular emphasis on food systems, renewable energy enterprises, and broad-band economies.

Long-term Performance Measure 3.1: The number of farmers and ranchers that gained an economic, environmental or quality-of-life benefit from a change in practice learned by participating in a Sustainable Agriculture Research and Education project.

Selected Past Accomplishments toward Achievement of the Key Outcome:

Western SARE educates and helps the agriculture industry become more profitable, protect natural resources/the environment, and improve the quality of life for producers and consumers. The number of separate SARE-impacted farms and ranches which increased profits and/or reduced costs was documented as at least 1,452, with adjacent farms and ranches totaled over 3000, impacting 4,178,000 acres. Of these farms and ranches, 82 percent reported sustained usage of the research-based idea or practices tested. Across the 5-year life-span of the project, and across the entire Western Region, there was a positive economic impact of over \$500 million.

For 2008 America Saves Week, NIFA-sponsored Cooperative Extension provided leadership in 24 States. As a result there was local collaboration with 1,325 partners and volunteers. Direct and in-kind funding, such as grants, savings bonds, and free media, totaled nearly \$500,000; 97,352 youth and adults reached through 1,460 direct outreach activities; 7,743,000 youth and adults reached through 1,467 indirect outreach activities; and 5,596 new Savers pledged to save a total of \$748,906 monthly.

In 2008, the incoming freshman GPA at Washington State University was 3.46, the incoming freshman GPA of self identified 4-H members was 3.71 indicating a .27 GPA increase. This statistic would indicate that as a pool, 4-H members are stronger students. 4-H youth continue to excel academically and are superior in their leadership and citizenship skills as documented through the Tufts Study of Positive Youth Development Washington State data.

The 4-H Study of Positive Youth Development (longitudinal study) indicates that 4-H youth were more than one and a half times more likely to expect to go on to college than non-4-H youth; had higher school grades and were more emotionally engaged in school than non-4-H youth; and scored significantly higher than those youth who did not participate in 4-H on six of eight factors related to civic identity and civic engagement.

Selected Accomplishments Expected at the FY 2011 Proposed Resource Level:

A Healthy Urban Food Enterprise Development Center will be established after a competitive process. The center will increase access to healthy affordable foods, including locally produced agricultural products to underserved populations, and will establish training and technical assistance for food enterprises and sub-grant to entities for food enterprises.

The NIFA-sponsored Cooperative Extension program will provide key leadership for “America Saves Week”, designed to encourage all Americans, especially those of low to moderate means, to take financial action leading to achieving, personal wealth, not debt. America Saves Week activities coordinated by Extension expect to result in 20,000 savers signed up in 30 States who set an aggregate savings goal of \$4 million. America Saves Week is a special emphasis effort of the overall program America Saves, which is offered by Extension via a partnership with the Consumer Federation of America.

The personal finance component of eXtension, launched in 2007, with funding from NIFA, provides reliable, research-based, and up-to-date financial and consumer information including learning modules, fact sheets, and commonly asked questions with unbiased, peer reviewed answers 24/7/365 on any Internet-ready device. The site, which currently focuses on financial preparation for a secure retirement, will be expanded to serve the financial literacy needs of youth and financially vulnerable audiences, such as bankruptcy filers. Key links with strategic partner organizations will expand the marketing potential. Evaluation strategies for on-line learning, plus significant effort to assure project sustainability, are expected.

Efficiency Measure 3.1(a): Proposal Review Time in days.

Efficiency Measure 3.1(b): Cumulative Dollars Saved for Grant Review.

**Key Outcome 3.2:** Increased knowledge among county based staff and community leadership in order to provide research-based practices to encourage appropriate community capitol development which enhances

business and economic development, the availability of appropriate education and health services, transportation networks and the vibrant community connections. Electronic deployment of information to increase the social, cultural, human and economic capitol available for more nimble and creative community responses to needs.

Long-term Performance Measure 3.2: The percentage of cooperative extension educators trained and using evidence based programming based on the seven community capitol to facilitate informed decisions that improve quality of life and increase economic viability.

Selected Past Accomplishments toward Achievement of the Key Outcome:

Through a NIFA-funded national consumer education program “Healthy Indoor Air for America’s Homes,” 186,025 participants made behavior changes to improve indoor air quality; 55,108 homes were tested for radon and 9,044 were mitigated, 40,980 people stopped exposing their children to second-hand smoke; 29,925 people tested their homes for lead; 33,825 people installed carbon monoxide detectors in their homes; 38,479 people selected and used home pesticides more wisely; and 27,272 people removed mold and mildew from their homes.

Tax management is a high priority that can save producers thousands of dollars in Michigan. A Michigan State University Extension system is offering an educational program to teach producers new tax changes and how to best utilize these changes to their advantage. An evaluation of the program found 94 percent of attendees utilized the tax estimate and tax management process. The average tax deferral per farm was \$17,782 or \$1,689,260 for all business combined.

NIFA funded a new Community of Practice (CoP) for eXtension called Entrepreneurs and Their Communities that brought together professors, experts, and partners to establish science-based, 24/7 web accessible resources for economic innovation. This CoP focuses on entrepreneurship and entrepreneurial communities to address the dramatic growth in dependence on self-employment—over 5 million people are self-employed in rural America-- and non-farm income to keep the agricultural economy functioning. The web portal provides resources for entrepreneurship-friendly communities and for entrepreneurs themselves who are creating, sustaining, or expanding their e-business firms, in both the agriculture and non-agricultural economic sectors. Over 20 content areas have been developed in areas such as: business ideas, getting started, financing a business, agricultural businesses for entrepreneurs, building entrepreneurial communities, tools, case studies, and state/local policies for the entrepreneur-ready communities.

Selected Accomplishments Expected at the FY 2011 Proposed Resource Level:

The Federal-State matching grant program to assist in the creation or enhancement of State sustainable agriculture research, extension, and education programs will leverage State and/or private money, and build the long-term capacity to guide the evolution of American agriculture to a more highly productive sustainable system. Funding will support activities that:

- Integrate sustainable agriculture in all State research, extension, and education projects;
- Support new research at sustainable agriculture centers at the nation’s land grant and other colleges and universities;
- Build stronger Statewide farmer-to-farmer networks and outreach and technical assistance strategies;
- Incorporate sustainable agriculture studies and curriculum in undergraduate and graduate degree programs.

Increased funding in the Sustainable Agriculture program will support training on crop and livestock management to improve soil quality and carbon sequestration, save energy, and mitigate climate change; and marketing innovations that enhance profitability, such as local and regional food systems. Evaluations confirm that agricultural professionals put this knowledge to use in their educational programs and interactions with farmers, ranchers and the public.

Efficiency Measure 3.2(a): Proposal Review Time in days.

Efficiency Measure 3.2(b): Cumulative Dollars Saved for Grant Review.

Key Outcome 4.2: Expanded science-based information and technologies and reduced number and severity of agricultural pest and disease outbreaks through: (1) connection and data exchange among national plant and animal disease diagnostic networks, (2) increased resource efficiency and decreased economic risk regarding the adoption of sustainable pest management tactics, (3) developed capacity to minimize or mitigate occupational and non-occupational human health risks associated with pest management, and (4) increased capacity in minimizing or mitigating environmental risk associated with pest management.

Long-term Performance Measure 4.2: The number of high-consequence pests, bacterial, parasitic, and viral pathogens, and disease threats detected and diagnosed by integrated the national plant diagnostic network and the national animal health laboratory network diagnostic labs.

Selected Past Accomplishments toward Achievement of the Key Outcome:

Faculty and graduate students at a veterinary school developed a new poultry vaccine using Salmonella to induce chicks to make antibodies to Campylobacter proteins in their intestines—where the infection begins. The vaccination process is simple, easy to produce and protective to the chick. The Salmonella lives four to five days, enough time to stimulate antibody production, and dies. The goal is to halt the contamination before it spreads and survives on raw chicken sold in stores. The vaccine may be available in 3 to 5 years. The vaccine's effect could be significant: about 8.9 billion broilers go to market annually in the U.S., with a value of \$21.5 billion.

NIFA funded researchers have teamed up with Mite Zapper LLC (Detroit, MI) to further refine a mite control device for honey bee colonies. This research increases knowledge about mode of actions or effects of pests or diseases on honey bees to achieve better control of pests and diseases and to gain increased honey production and more effective pollination of agricultural crops.

Very Virulent Infectious Bursal Disease Virus (vvIBDV) is a disease that has significant negative economic impact for the global poultry industry. Scientists in Ohio developed, through its Center for Diagnostic Assays, a tool for detecting vvIBDV. The development of the vvIBDV real-time assay is providing a front-line tool for monitoring and controlling the spread of this highly destructive immunosuppressive poultry disease. The development of this assay also is important because IBDV is able to rapidly produce mutated viruses that are resistant to vaccines and the vvIBDV strain causes unusually high morbidity and mortality. Early diagnosis is central to protecting this industry from one of its most economically damaging diseases.

The threat of a pandemic outbreak of the Avian Influenza H5N1 continues. The emergence of Avian Influenza costs the commercial poultry industry millions of dollars every year. These events consist of the low pathogenic strain of the virus, which does not pose a threat to humans; however, the continued presence of the virus in the poultry industry increases the likelihood of a shift to the high pathogenic strain. The NIFA Avian Influenza Coordinated Agricultural Project brought together 19 states and 23 institutions to tackle this problem. In only three years, the program has made considerable progress in preventing and controlling virus in the United States. Two new internally available diagnostic tests are available. Two training programs share the latest information with poultry industry and game bird producers. The team developed equipment disinfection methods to inactivate the virus. The project has succeeded in determining interspecies viral transmission and pathogenesis involving wild aquatics to domestic poultry, swine, and turkeys. The team also identified four major wild bird migratory flyways over the United States. All of these steps will provide further protection to mitigate incidences before they become national problems.

The National Plant Diagnostic Network (NPDN) developed links to laboratories in every State. NIFA funding has enabled the NPDN to increase the cumulative number of specific plant diseases labs within the network are prepared to detect from three in 2004 to ten in 2009.

NIFA helped fund and provided leadership to establish the National Animal Health Laboratory Network (NAHLN). NIFA funding has helped enable the NAHLN to increase the cumulative number of specific animal diseases labs within the network are prepared to detect from six in 2004 to nine in 2009.

Selected Accomplishments Expected at the FY 2011 Proposed Resource Level: In addition to continuing risk reductions and increased efficiencies of traditional NIFA Integrated Pest Management Programs, the NPDN expects to make significant progress, which builds on past accomplishments and includes:

- Increasing the ability of laboratories in all 50 States to rapidly and accurately diagnose plant pathogens of regional and national interest through improved diagnostic equipment, training, and methods;
- Improving the biocontainment, biosafety, and biosecurity of regional diagnostic centers and other partner laboratories; and
- Increasing the utilization of non-public National Agricultural Pest Information Systems data for the early detection of bio-terrorism related, accidental, or natural outbreaks that have the potential to threaten the nation's plant resources, trade position, or consumer confidence.

Efficiency Measure 4.2(a): Proposal Review Time in days.

Efficiency Measure 4.2(b): Cumulative Dollars Saved for Grant Review.

### **Means and Strategies**

USDA has embraced the creation of NIFA from the former Cooperative State Research, Education, and Extension Service as a challenge to transform and reinvigorate its charge for funding agricultural science and education. The USDA has identified five key priorities for USDA science: Climate Change, Bioenergy, Childhood Nutrition, Food Safety, and International Food Security.

NIFA is in the midst of transforming itself around this vision. Relevant to this strategic goal are two of the USDA's priorities, as articulated within NIFA:

**Global Food Security and Hunger.** NIFA supports new science to boost U.S. agricultural production, improve global capacity to meet the growing food demand, and foster innovation in fighting hunger by addressing food security for vulnerable populations.

**Sustainable Energy.** NIFA contributes to the President's goal of energy independence with a portfolio of grant programs to develop biomass use for biofuels, designing optimum forestry and crops for bioenergy production, and to produce value-added bio-based industrial products.

NIFA is refocusing AFRI so to address five priorities while preserving funding for foundational research and preparing the next generation of agricultural scientists. Grants are expected to be significantly larger to attract the best scientists and educators and give them sufficient resources to truly solve significant problems. Grants supporting the five priorities will be large, trans-disciplinary projects integrating research, education, and extension and, in some cases, may be regional in scale. These large grants will be funded on a continuation basis, committing the majority of existing AFRI funding for the expected five year duration of the grants. Therefore, funding above FY 2010 levels is required for AFRI to address additional priorities in the coming years.

In support of the two priorities outlined above, AFRI will be focusing its funding on:

**Global Food Security and Hunger.** The AFRI Global Food Security program will fund grants to address two intertwined challenge areas that underpin this important priority: food availability and food accessibility. Research, education, and extension focused on food availability will allow increased food production and reduced losses from the farm and ranch to the consumer by controlling important animal diseases and plant pests. Research, education and extension focused on food accessibility will address the emerging demand for resilient and secure food systems, resulting in a decrease in the number of food insecure individuals, families, and communities. It is expected that work funded through this program will have relevance for both domestic and international populations.

**Sustainable Energy.** The AFRI Sustainable Energy program will fund grants targeting the development of regional systems for the sustainable production of bioenergy and biobased products that: contribute significantly to reducing dependence on foreign oil; have net positive social, environmental, and rural economic impacts; and are integrated with existing agricultural systems. Key components of the implementation of these grants are integrated research, education, and extension/technology transfer activities. These grants will be support the start up and growth of a network of regional bioenergy centers focusing on dedicated energy crops and advanced non-ethanol infrastructure-compatible fuels and biobased products.

Farming in the 21st century requires substantial resources and extensive management skills. USDA helps agricultural producers manage the risks associated with agricultural production, improve good farming practices and become good stewards of the land, and recover economically and structurally when natural disaster strikes. NIFA contributes to the improvement and strengthening of this dynamic agricultural system through sponsored research into alternative methods to identify, assess, and manage risk, providing relevant education, and extending information and practices to improve production and market decision making through enhanced risk management.

NIFA-funded projects contribute to the goal of energy independence with a portfolio of grant programs to convert biomass to biofuels, design optimum biomass for bioenergy production, and produce value-added bio-based industrial products.

NIFA supports new science to boost U.S. agricultural production, improve global capacity to meet the growing food demand, and foster innovation in fighting hunger by addressing food security for vulnerable populations.

The Sustainable Agriculture Research and Education Program (SARE) helps farmers and ranchers adopt practices that are profitable, environmentally sound, and good for communities. Much of SARE research has been focused on locally grown products.

NIFA promotes the well-being of America through research, education, and extension to better understand the economic, demographic, and environmental forces affecting regions and communities, and using knowledge to develop strategies that make maximum use of local assets. NIFA supports the education and training of residents and community and business leaders to help their communities thrive in the global economy.

NIFA sponsors research, education, and extension to improve the understanding of socioeconomic conditions in rural America, and to promote community, youth and family well-being. Supported activities include research-based information on community assets and liabilities that affect youth, family and community well-being; research on policies and programs addressing circumstances that impact the well-being of individuals, family and communities; education, research, and extension to support effective family decision-making in managing their social and economic capital; regional rural development training, research and information access; analysis and education on issues that impact the well-being of communities and families, characterize people and places in need of assistance, and on the effectiveness of related public policies and programs; and education and extension to help parents provide a safe, healthy and nurturing atmosphere in which children and youth can grow and learn.

NIFA supports the generation, dissemination, and use of research-based information and knowledge to support new and innovative economic opportunities for communities and to assist public and private sector leaders in their decision making of rural issues. NIFA sponsors analysis of policy and translate research results into recommendations for business management and community leadership to optimize public and private decision-making; education, research, and extension on economic diversification, e-commerce, entrepreneurship, community planning, service infrastructure, local government, workforce development, leadership development and civic engagement; and sponsors research and analyses on the structure and performance of rural economies and on services and resources that promote economic development.

The Community Food Projects Competitive Grant Program funds low-income communities to address food access and nutrition issues, such as farmers markets, youth farms, urban agriculture, farm-to-school, community gardens, and community food assessments, all of which could contribute to a local and regional food system.

The Healthy Urban Food Enterprise Development Center will be established this year after a competitive process and will increase access to healthy, affordable foods, including locally produced agriculture products to underserved populations, and will establish training and technical assistance for food enterprises and sub-grant to entities for food enterprises.

NIFA supports numerous research and extension activities to enhance the competitiveness and sustainability of rural and farm economies, ranging from the development of new non-food products to improvements in productivity and financial management. NIFA sponsors vital research and development contributions for new non-food products and technologies, quality improvements, new uses, and value added processes that enhance market opportunities for agricultural and forest products. Through extension, NIFA and its partners effectively demonstrate and transfer this knowledge to users.

NIFA sponsors education, research, extension, and technology development to identify and assess organisms, pathogens, and toxins that cause human disease throughout the agricultural environment.

Education programs strengthen the foundation for all NIFA priorities by building capacity in the agricultural research and extension system and training the next generation of scientists and educators. NIFA helps ensure that a high-quality higher education infrastructure will be available at the nation's land-grant universities to address national needs, and it uses the infrastructure of scientific expertise from these and other colleges and universities, and also of public and private laboratories, to partner in addressing national priorities. Annual activities ensure that the relevance, quality and productivity of newly funded education, research, and extension projects support these objectives. This is accomplished through guidance for annual plans of work, the preparation of requests for applications, funding meritorious competitive proposals and plans, and oversight of previously funded work. NIFA supports the base programs of State Agricultural Experiment Stations and the Cooperative Extension System nationwide at land-grant universities, providing working funds to researchers and extension personnel at land-grant institutions all over the United States.

Annual activities ensure that the relevance, quality and productivity of newly funded education, research, and extension projects are specifically linked to assisting rural communities to create wealth so they are self-sustaining, repopulating, and economically thriving. This is accomplished through guidance for annual plans of work, the preparation of requests for applications, funding meritorious proposals and plans, and oversight of previously funded work.

**USDA Strategic Goal:** Ensure our national forests and private working lands are conserved, restored and made more resilient to climate change, while enhancing our water resources.

**NIFA Strategic Objective 6.1:** Ensure clean, abundant water and clean, healthy air

**NIFA Strategic Objective 6.2:** Enhance soil quality to maintain productive working lands

**NIFA Strategic Objective 6.3:** Protect, enhance, and manage forests and rangelands

**NIFA Strategic Objective 6.4:** Protect and enhance wildlife habitat to benefit desired, at-risk, and declining species

**Key Outcome 6:** Expanded and disseminated science-based knowledge and information for management of the nation's natural resources and environment, including soil, air and water, in agricultural, forest, and range working lands and ecosystems.

**HPPG Measure:** NIFA provides research, extension, and education to support USDA work to accelerate the protection of clean, abundant water resources by implementing high impact targeted practices on 3 million acres of National Forest and private working lands in priority landscapes.

Long-term Performance Measure 6: Development and adoption of science-based technologies, education and management procedures such that production of agricultural goods and services are optimized while protecting our natural resources and environment.

Selected Past Accomplishments toward Achievement of the Key Outcome: The Renewable Resources Extension Act (RREA) calls for “expanded extension programs for forest and rangeland resources” to enhance the sustainability of these renewable natural resources. With NIFA funding, 69 land-grant institutions educated private forestland and rangeland owners regarding forest and rangeland sustainability. As a result of these activities: 937 income –generating business were created or expanded, 2,390 new jobs were created, 27,300 landowners increased their awareness of forest or rangeland resources, 21,100 landowners implemented at least one new renewable resource practice, landowners either earned or saved and estimated \$17,810,000, loggers either earned or saved \$198,571,756 by adopting new harvesting technologies, and every RREA dollar leverages from \$5 -\$15 from state, county and other resources.

Because of NIFA funded Extension programs, a total of 14,991 acres of grain sorghum and corn had atrazine Best Management Practices (BMPs) implemented in Kansas. This equated to 53 percent of the grain sorghum acres and 46 percent of the corn acres planted in the six targeted watersheds. Implementation of atrazine BMPs resulted in 20 percent less atrazine being applied in the targeted watersheds. Actual water quality monitoring of treated and untreated watershed found 65 percent lower atrazine concentrations in streams in targeted watersheds in which BMPs had been implemented.

An erosion prediction model was developed by researchers in cooperation with scientists and field personnel from USDA-Agricultural Research Service and USDA-Natural Resource Conservation Service (NRCS). The model is being used an estimated 5,000 times a day to compare management alternatives for their ability to reduce erosion and to enhance soil quality. In addition, the erosion prediction model is now being used for planning on construction sites, helping managers keep sediment from damaging streams and rivers by comparing best management practices using cost-benefit analyses.

Emerald Ash Borer (EAB) is an exotic invasive insect known to kill ash trees of all species. In states surrounding Minnesota, the emerald ash borer has already killed millions of trees. To delay EAB introduction and spread to ash trees in Minnesota, a First Detector Program was created by Extension specialists. A public information campaign resulted in the collection of seeds from 254 ash trees; more than 30 ash seed samples submitted. These seeds were placed in a long-term storage facility, making it possible to preserve the ash gene pool for potential reintroduction of the species when more effective control mechanisms have been introduced to manage the EAB. This will save or regenerate a significant portion of Minnesota's forests.

The removal of forest products, namely timber, can have an impact, positive or negative, on bird species. NIFA funded ornithologists are providing science-based management recommendations on the size, shape, and spatial distribution of timber harvests that will promote the continued viability of early-successional and mature-forest bird communities. In particular the scientists have shown that (1) successional bird communities may be sensitive to patch and landscape attributes related to the size and distribution of early-successional habitats and (2) mature-forest bird communities heavily use successional habitats during the post-breeding and post-fledging periods. This research shows that use of shrubby areas by juvenile mature-forest birds (e.g., ovenbird and worm-eating warbler) increases survival rates.

Selected Accomplishments Expected at the FY 2011 Proposed Resource Level:

RREA and Smith-Lever funds will continue to support the Master Tree Farmer program. This satellite broadcasted educational event is potentially available through all land grant universities and can reach a diverse and ever changing forest landowner demographic. Master Tree Farmer is an intensive educational program designed to introduce landowners to the multitude of forest management topics. The goal is not to make landowners foresters but provide them with the foundation to effectively converse regarding sustainable management of their property. It has been shown that private landowners are more willing to have forestry practiced on their lands when they understand why things are done.

Efficiency Measure 6(a): Proposal Review Time in days.

Efficiency Measure 6(b): Cumulative Dollars Saved for Grant Review.

### **Means and Strategies**

USDA has embraced the creation of NIFA from the former Cooperative State Research, Education, and Extension Service as a challenge to transform and reinvigorate its charge for funding agricultural science and education. The USDA has identified five key priorities for USDA science: Climate Change, Bioenergy, Childhood Nutrition, Food Safety, and International Food Security.

NIFA is in the midst of transforming itself around this vision. Relevant to this USDA strategic goal is one of the USDA's priorities, as articulated within NIFA:

**Climate Change.** NIFA-funded projects generate knowledge to develop an agriculture system that maintains high productivity in the face of climate changes. This will help producers to plan for and make decisions to adapt to changing environments and sustain economic vitality, and can take advantage of emerging economic opportunities offered by climate change mitigation technologies.

NIFA is refocusing AFRI so to address five priorities while preserving funding for foundational research and preparing the next generation of agricultural scientists. Grants are expected to be significantly larger to attract the best scientists and educators and give them sufficient resources to truly solve significant problems. Grants supporting the five priorities will be large, trans-disciplinary projects integrating research, education, and extension and, in some cases, may be regional in scale. These large grants will be funded on a continuation basis, committing the majority of existing AFRI funding for the expected five year duration of the grants. Therefore, funding above FY 2010 levels is required for AFRI to address additional priorities in the coming years.

In support of the priority outlined above, AFRI will be focusing its funding on:

**Climate Change.** The AFRI Climate Change program will fund grants focused on preparing the nation's agriculture and forests to adapt to the climate of the future and to reduce agricultural greenhouse gas emissions. These grants will be large, integrated, trans-disciplinary projects focused on developing advanced food, feed and fiber production systems and creating new plant varieties and animal breeds adapted to the changing climates and developing best management practices and methods to reduce greenhouse gas emissions and increase carbon sequestration from agriculture and forest systems while contributing to the emerging carbon-based cap and trade economy.

The development of the scientific and policy knowledge base and educational and extension efforts to achieve maximum sustainable benefits from both private and common property natural resources is a goal of NIFA. Education programs strengthen the foundation for this goal by building capacity in the agricultural research and extension system and training the next generation of scientists and educators.

NIFA-funded projects create the scientific information needed so producers can plan and make decisions to adapt to changing environments and sustain economic vitality and can take advantage of emerging economic opportunities offered by climate change mitigation technologies.

Specific resource concerns that can be addressed best through an airshed or watershed approach include water quality and quantity, siting of production facilities, wetland restoration, and other terrestrial and aquatic habitat improvement issues. NIFA sponsors basic and applied research integrated with education and extension to better understand the complex environmental interrelationships affecting agricultural, forest, and rangeland ecosystems, to improve scientific and lay understanding of water and air for improved management of working lands, and to minimize adverse environmental impacts of resource management.

The AFRI Water and Watersheds Research Program provides the basic knowledge needed to address water quality and quantity issues in rural and agricultural watersheds. The goals of this program are to protect and enhance the natural resource base and environment by improving and maintaining healthy watershed habitat and water supply protection, and improves the quality of life in rural America through clean irrigation and livestock drinking water supplies.

High-quality soils support the efficient production of crops for food, fiber and energy. NIFA sponsors integrated education, research, and extension work to better understand the complex environmental interrelationships affecting agricultural, forest, and rangeland production practices, to improve scientific and lay understanding of soil for better production management, and to minimize adverse environmental impacts.

Healthy, vigorous plant communities are critical to healthy forest and rangeland ecosystems to protect soil quality, prevent accelerated soil erosion, and to maintain and improve water quality and quantity. These ecosystems also provide fiber; sequester carbon; and supply forage, cover, and habitat for livestock and wildlife. Active, science-based management is essential to maintaining healthy, diverse and resilient forests and rangelands. NIFA and its partners collaborate with landowners, industry, non-governmental organizations, citizens and other interested stakeholders to develop, validate and disseminate knowledge and technologies to help manage these communities for sustainable natural resource and ecosystem services.

Annual activities ensure that the relevance, quality and productivity of newly funded education, research, and extension projects are specifically linked to ensuring our national forests and private working lands enhance our water resources and are conserved, restored, and made more resilient to climate change. This is accomplished through guidance for annual plans of work, the preparation of requests for applications, funding meritorious proposals and plans, and oversight of previously funded work.

**USDA Strategic Goal: Help America promote agricultural production and biotechnology exports as America works to increase food security.**

**NIFA Strategic Objective 1.2:** Support international economic development and trade capacity building  
**NIFA Strategic Objective 3.1:** Expand economic opportunities in rural America by providing research, education, and extension to create opportunities for growth

**Key Outcome 1.2:** Expanded international economic development and trade capacity building through: (1) partnerships between U.S. and counterpart faculty in developing or transitioning countries to strengthen science applications and (2) technical assistance provided to these countries to support market and agricultural sector development.

**HPPG Measure:** NIFA provides research, extension, and education to support USDA in increasing the number of provinces in Afghanistan in which women and children are food secure from 10 to 14, ensuring food security for 41 percent of the country and, through this work, establishing the model for U.S. international efforts to improve global security.

**Long-term Performance Measure 1.2:** Higher participation of faculty, public and private sector professionals in international scientific, cultural and economic forums.

**Selected Past Accomplishments toward Achievement of the Key Outcome:** NIFA partnered with the Foreign Agricultural Service (FAS) and the Animal and Plant Health Inspection Service to provide technical assistance and training to help build Afghanistan's national capacity to detect and control animal diseases. A NIFA veterinarian is in the final year of a 3-year assignment in Afghanistan, coordinating short-term assignments with land-grant universities (University of Georgia, Michigan State University, and Texas A&M University) and other USDA experts provide expertise and training to Afghanistan's staff, Kabul University veterinary and animal health faculty, and others in animal disease surveillance, data analysis, field response, lab diagnostics, and national planning for disease control. Under an agreement

with FAS, Fort Valley State University, an 1890 land-grant university in Georgia, produced an illustrated handbook of animal diseases of Afghanistan.

International Science Education (ISE) award made to Kansas State University resulted in the development of a program that includes modules from Uganda, Lebanon and New Zealand in their “Comparative Food and Agricultural Systems” course. Through the course modules, students are learning the financial, economic, political, agronomic, meteorological, topographical, and animal husbandry advancements and constraints of each economic region relative to the import and export of food and food products. This project cuts across the multiple target areas not only of collaboration nationally and internationally but also enhanced curriculum and prepared students for the workforce. The course curriculum has already been shared and implemented at the University of Florida; Auburn University and the University of Arkansas are considering including the course next year.

A NIFA funded project developed a set of best practices and retool curricula to equip faculty and students with the skills needed to function smartly around the world in order to strengthen America's leadership in international agriculture. As outcome, a 30 percent improvement in international content in curricula in agricultural courses; a reported increase of 40 percent in participation in study abroad programs among students enrolled in schools of agriculture in 1890 institutions; a 40 percent increase in awareness of and interest in international agricultural issues among faculty and students in schools of agriculture in 1890 institutions. Over time the project will produce students and faculty capable of working with their counterparts in a transnational context to solve complex global agricultural problems.

Selected Accomplishments Expected at the FY 2011 Proposed Resource Level: ISE grant projects are expected to enhance the international content of curricula; ensure that faculty work beyond the U.S. and bring lessons learned back home; promote international research partnerships; enhance the use and application of foreign technologies in the U.S.; and strengthen the role that colleges and universities play in maintaining U.S. competitiveness.

Grants to higher education institutions will train students at the baccalaureate, masters and doctorate level to expand human capital development in emerging areas (i.e. biotechnology, food systems, economics and marketing, etc.). As a result, workforce ready graduates with core competencies in sustainable sciences will be able to respond to the national needs in the Economics and Trade arena through the Higher Education Multicultural Scholars Program and the Food and Agricultural Science National Needs Graduate and Post Graduate Fellowship Grants Program.

Agriculture and Food Research Initiative (AFRI) funds for international food security will target research leading to mutual benefit, such as directing expanded efforts on plant and animal diseases that threaten public health and agricultural production. Examples include Foot and Mouth Disease, Rift Valley Fever, and Wheat Stem Rust UG-99.

Efficiency Measure 1.2(a): Proposal Review Time in days.

Efficiency Measure 1.2(b): Cumulative Dollars Saved for Grant Review.

### **Means and Strategies**

NIFA funds research, education, and extension programs to develop and transfer technology, practices, and skills to support economically viable farms and ranches of various size and scale. This work reduces per unit and overall production costs, improves quality and yields, reduces environmental impact, and improves marketing and management decisions.

NIFA supports new science to boost U.S. agricultural production, improve global capacity to meet the growing food demand, and foster innovation in fighting hunger by addressing food security for vulnerable populations.

NIFA funds research to discover more productive and environmentally benign ways to produce food and fiber, not only in the U.S., but worldwide. Research ranges from using genomics to develop hybrids requiring fewer chemical inputs, to systems for more informed decision making, to new precision technology and nanotechnology to improve management of crops and animals.

Agricultural pests and diseases threaten the quality of agricultural products and the economic success of a farm operation and its surrounding community. Through basic and applied research, host-pathogen interactions can be identified, epidemiological and economic impacts of diseases and pests described, and control measures improved and validated. Through education and extension, producers and practitioners understand the threats from diseases and pests, and can implement effective and efficient means of control. NIFA sponsored research and analysis is a primary source of information on pests and diseases that impact the food and fiber system. The Food and Agriculture Defense Initiative seeks to prevent post-harvest bio-terrorism and disasters, improve homeland security and ensure growers can handle additional crops and new pests in an emergency.

NIFA funds the production and dissemination of science-based information, education and technical assistance that lead to capacity building in developing countries, promoting economic, political, and social stability.

Annual activities ensure that the relevance, quality and productivity of newly funded education, research, and extension projects are specifically linked helping America promote sustainable agricultural production and biotechnology exports as America works to increase foods security. This is accomplished through guidance for annual plans of work, the preparation of requests for applications, funding meritorious proposals and plans, and oversight of previously funded work.

**USDA Strategic Goal:** Ensure that all of America's children have access to safe, nutritious, and balanced meals

**NIFA Strategic Objective 2.1:** Provide research, education, and extension to expand domestic market opportunities

**NIFA Strategic Objective 3.2:** Provide research, education, and extension to improve the quality of life in rural areas

**NIFA Strategic Objective 4.1:** Reduce the incidence of food-borne illnesses and contaminants through research, education, and extension

**NIFA Strategic Objective 5.1:** Ensure access to nutritious food

**NIFA Strategic Objective 5.2:** Promote healthier eating habits and lifestyles

**Key Outcome 4.1:** Reduced incidence or prevalence of food borne illnesses and contaminants through increased knowledge and/or the development of mitigation, intervention, or prevention strategies via research or integrated research, education, and extension projects in the following food safety areas: pre-harvest food production and transportation, post-harvest processing and distribution, retail preparation and distribution, and consumer preparation, consumption, and behavior.

**Long-term Performance Measure 4.1:** The number of methods that reduce food contamination and growth of foodborne organisms.

**Selected Past Accomplishments toward Achievement of the Key Outcome:**

Scientists studied cranberries from a food-safety standpoint and research has shown that cranberries have the power to fight food poisoning, eliminating or inhibiting several important food-borne pathogens. In ground beef and in the petri dish, the compound slowed the growth of -- and in some cases, reduced to untraceable levels -- listeria, salmonella, staph infection and E. coli 0157:H7, the form of the microorganism responsible for the 2006 spinach contamination. In a sensory study, researchers found that consumers would accept a burger that included up to 5 percent cranberry or blueberry extract by weight; a mixture of the two berry extracts scored highest. It looks and tastes like a regular hamburger, but it fights pathogenic E. coli like a superburger.

Ensuring the safety of aquaculture and seafood products from *Listeria monocytogenes* is a continuing challenge. Listex phage P100 (P100) is a bacteriophage preparation approved by FDA and USDA for raw and ready-to-eat foods. Research findings demonstrated that phage P100 was effective in reducing *Listeria monocytogenes* counts on catfish fillet tissue. Such overall reductions in *Listeria monocytogenes* counts were still maintained at the end of the 10-day shelf-life of fresh catfish fillet after P100 treatment. This is a promising new technology that can selectively kill target *Listeria monocytogenes* on fresh catfish fillets.

A food scientist, in collaboration with a researcher at the National Chiao Tung University in Taiwan, has found a way to detect pathogenic *E. coli* in food with the naked eye, using nanotechnology. The quick, easy and affordable method developed by this team of researchers could allow consumers and producers to know immediately whether their food is safe to eat, because the presence of pathogenic *E. coli* causes the nanoparticles to change color. The implications for the industry are revolutionary.

University of Maine researchers in collaboration with Beacon Analytical Systems (BAS), a Maine biotechnology company, developed a commercial kit for the rapid quantification of melamine residues in food. BAS is currently the only manufacturer of melamine kits in the world. This collaboration was instrumental in helping BAS grow substantially. In addition to their work on melamine contamination, scientists are working with BAS on new ways to detect paralytic shellfish poison in seafood.

Selected Accomplishments Expected at the FY 2011 Proposed Resource Level: NIFA will sponsor AFRI food safety projects specifically targeting emerging issues in food safety, particularly produce; food and agricultural defense; and will increase focus on projects dealing with nanotechnology for functional foods and food safety.

Efficiency Measure 4.1(a): Proposal Review Time in days.

Efficiency Measure 4.1(b): Cumulative Dollars Saved for Grant Review.

**Key Outcome 5.1:** New knowledge that clarifies dietary health relationships in order to support better dietary recommendations and improved food products.

HPPG Measure: NIFA provides research, extension, and education to support USDA work to: (1) reduce the number of households with children who experience very low food security by 100,000; (2) establish national standards that result in improved quality of food sold in schools throughout the day; and (3) reduce food deserts by creating economic opportunities for farmers and food entrepreneurs to vend in low access areas.

Long-term Performance Measure 5.1: Confirmation and/or changes to the existing guidelines to be in the 2010 *Dietary Guidelines for America*.

Selected Past Accomplishments toward Achievement of the Key Outcome: Scientists are advancing the knowledge of the role of black raspberries in cancer management. Findings from these studies suggest that a mixture of preventative agents, which berries provide, may more effectively prevent cancer than a single agent that targets only one or a few genes. Black raspberries have vitamins, minerals, phenols and phytosterols, many of which individually are known to prevent cancer in animals and freeze drying the berries concentrates these elements about ten times, giving a power pack of chemoprevention agents that can influence the different signaling pathways that are deregulated in cancer.

Researchers found that lycopene molecules in tomatoes that are combined with fat and subjected to intense heat during processing are restructured in a way that appears to ease their transport into the bloodstream and tissue, thus increasing the availability of this most important carotenoid. Prior research has shown that lycopene plays a protective role against multiple disease processes, and in particular, are linked to the prevention of cancer and other chronic diseases. Improving the human body utilization of lycopene has major health benefits.

Through NIFA funding, scientists created a Relative Antioxidant Index (RACI) by statistically integrating the antioxidant capacity values generated using seven different chemical methods. The RACI was validated using 20 commonly consumed vegetables. This index provides standardization of information about the antioxidant content of various fruits and vegetables and is useful as a ranking tool for use by the food industry, scientists, and consumers.

Selected Accomplishments Expected at the FY 2011 Proposed Resource Level: With funding by NIFA, researchers tested their hypothesis that lower-cost diets among low-income women would be higher in calories but lower in nutrients. Their tests concluded that the more energy-dense (high-calorie) the diet, the less nutritious it is likely to be. Additionally, low-income women who ate more nutritious diets spent more money per calorie than those who ate less nutritious diets. The consumption of a higher energy-dense diet was associated with higher intakes of fat and lower intakes of calcium and vitamin A. Results of this project point out the need for more nutrition guidance materials for low-income audiences.

Efficiency Measure 5.1(a): Proposal Review Time in days.

Efficiency Measure 5.1(b): Cumulative Dollars Saved for Grant Review.

**Key Outcome 5.2:** Reduced proportion of adult participants age 20 years and older who are obese, and of children and adolescents who are obese and overweight by increasing healthier food choices and lifestyles.

HPPG Measure: NIFA provides research, extension, and education to support USDA work to establish national standards that result in improved quality of food sold in schools throughout the day.

Long-term Performance Measure 5.2: Development and use of effective intervention methods and strategies to change behavior and improve diet and physical activity in target populations.

Selected Past Accomplishments toward Achievement of the Key Outcome:

The EFNEP program continues to be highly effective in changing participants' behaviors, resulting in significant improvements in daily living skills. Ninety-three percent of recent graduates reported more closely following the MyPyramid recommendations, including an increase of 1.4 servings of fruits and vegetable per day, 83 percent of recent graduates improved food management practices, 88 percent improved nutrition practices, and 67 percent improved food safety practices. Multiple cost-benefit studies in past years show that every dollar invested in EFNEP results in from \$3.63 to \$10.64 in saved health care costs and \$2.48 saved in food expenditures.

The Community Food Projects Competitive Grants Program will fund low income communities to increase access and self-sufficiency of their food systems through building relationships with producers, becoming producers and local marketing within community to create urban-rural linkages. Projects will:

- Meet the food needs of low-income individuals;
- Increase the self-reliance of communities in providing for the food needs of the communities;
- Promote comprehensive responses to local food, farm, and nutrition issues; and
- Meet specific State, local or neighborhood food and agricultural needs including needs relating to:
  - Infrastructure improvement and development;
  - Planning for long-term solutions; or
  - The creation of innovative marketing activities that mutually benefit agricultural producers and low-income consumers.

The Washington State University Program, Food \$ense, reaches large numbers of youth in partnership with public schools. Curriculum content and outcome measures include both nutritional quality and physical activity. Youth reported behavior changes in the following areas of dietary quality: eating fruits and vegetables daily (68 percent); increased willingness to taste new foods (93 percent); and using labels to compare nutritional content of foods (64 percent). Sixty-nine percent of youth also reported increased levels of physical activity after participating in Food \$ense. Based on the parent survey, 72 percent of

families reported buying healthier snacks and reading nutrition labels. Eighty one percent reported higher levels of physical activity and 75 percent increased consumption of fruits and vegetables.

Selected Accomplishments Expected at the FY 2011 Proposed Resource Level: The historically Black 1890 Land Grant institutions will maintain a larger funding base to sustain the growth of program outreach in addition to enhanced support and training from the Federal partner. Additional funding will provide new opportunities for educators in minority neighborhoods to reach at-risk families with culturally appropriate materials to improve the quality of their diets.

The increase will permit both 1890 and 1862 institutions to sustain the staff and resources they require to continue to implement EFNEP, and to reach more than the 500,000 Americans currently helped each year. This will result in greater program outreach to the minority low-income, high-risk families served by these institutions.

Efficiency Measure 5.2(a): Proposal Review Time in days.

Efficiency Measure 5.2(b): Cumulative Dollars Saved for Grant Review.

### **Means and Strategies**

USDA has embraced the creation of NIFA from the former Cooperative State Research, Education, and Extension Service as a challenge to transform and reinvigorate its charge for funding agricultural science and education. The USDA has identified five key priorities for USDA science: Climate Change, Bioenergy, Childhood Nutrition, Food Safety, and International Food Security.

NIFA is in the midst of transforming itself around this vision. Relevant to this USDA strategic goal is two of the USDA's priorities, as articulated within NIFA:

**Childhood Obesity.** NIFA-supported programs ensure that nutritious foods are affordable and available, and provide guidance so that individuals and families are able to make informed, science-based decisions about their health and well-being.

**Food Safety.** NIFA food safety programs work to reduce the incidence of food-borne illness and provide a safer food supply by addressing the causes of microbial contamination and antimicrobial resistance, educating consumers and food safety professionals, and developing food processing technologies to improve safety.

NIFA is refocusing AFRI so to address five priorities while preserving funding for foundational research and preparing the next generation of agricultural scientists. Grants are expected to be significantly larger to attract the best scientists and educators and give them sufficient resources to truly solve significant problems. Grants supporting the five priorities will be large, trans-disciplinary projects integrating research, education, and extension and, in some cases, may be regional in scale. These large grants will be funded on a continuation basis, committing the majority of existing AFRI funding for the expected five year duration of the grants. Therefore, funding above FY 2010 levels is required for AFRI to address additional priorities in the coming years.

In support of the priorities outlined above, AFRI will be focusing its funding on:

**Childhood Obesity.** The AFRI Obesity Prevention program will fund grants on childhood obesity prevention. Childhood obesity and overweight have increased dramatically in recent years. Currently 17 percent of children and adolescents are overweight or obese. Obesity early in life leads to lasting health and psychosocial problems and increased health care costs. The AFRI grants will be large, integrated, trans-disciplinary projects with durations of up to 5 years. The grants will be for the prevention of obesity in children through a focus on a healthy diet and appropriate physical activity.

**Food Safety.** The AFRI Food Safety Program will fund research, education and integrated grants focused on 1) improving the safety of the food supply through the development and implementation of effective strategies to prevent or mitigate food-borne contamination from the pre-harvest environment to consumption (farm-to-fork); 2) promoting the development and adoption of effective detection technologies for food-borne pathogens and other contaminants in foods; 3) reducing public health and economic impacts through the development, evaluation and implementation of effective traceability systems; and 4) increasing the number of food safety scientists, as well as scientists who are cross-trained in environmental science, engineering, and public health, to provide a holistic approach to ensuring the safety of the food supply. Large-scale grants will call for multidisciplinary research approaches that are necessary for solving food safety issues and creating a safer food supply.

Maintaining an affordable and safe national food supply is essential to agriculture and the nation. The ability to detect and prevent contamination by intentional or naturally occurring causes is a priority to ensuring food safety throughout the production, processing and distribution system. Collecting and disseminating accurate scientific knowledge will promote food safety from production to consumption. Through cooperation with its partners, NIFA sponsors the development and distribution of scientific-based information, technology and practices to producers, manufacturers, the work force, and regulatory agencies to help ensure the safety of agriculture and the food supply to domestic and global consumers. NIFA sponsors education, research, extension, and technology development to identify and assess organisms, pathogens, and toxins that cause human disease in foods and in the processing and distribution system, and supports the development and transfer of practices and intervention strategies that manage, reduce or eliminate food safety risk throughout the food chain.

NIFA-funded food safety programs work to reduce the incidence of food-borne illness and provide a safer food supply by addressing and eliminating causes of microbial resistance to contaminants, educating consumer and food safety professionals, and developing food processing technologies.

The National Integrated Food Safety Initiative (NIFSI) supports food safety grants that include food safety in child care and after-school programs. Among the many food safety topics addressed, NIFSI supports food safety education grants for consumers across the lifespan, including families with young children.

NIFA sponsors research and analysis to improve the scientific knowledge base concerning nutrition and health, and sponsors education and extension to promote healthy diets, reach children early, ensure access to healthy food, and utilize scientifically valid information to improve food, diet, and activity level decisions. NIFA partners develop, test and release new technologies and innovative production practices to enhance the nutritional properties of foods, and increase accessibility to more healthy and nutritious food products for the entire population. Research helps verify new classes of food compounds that play a role in human health through optimal nutrition. Education of professionals and practitioners helps ensure that relevant, scientifically valid information and recommendations reach consumers. Extension reduces risks from adoption of unproven and dangerous practices through science-based education.

NIFA intends to use its nutrition education efforts as key opportunities to promote healthier eating and more physical activity across the Nation. EFNEP is designed to assist limited resource audiences in acquiring the knowledge, skills, attitudes, and changed behavior necessary for nutritionally sound diets, and to contribute to their personal development and the improvement of the total family diet and nutritional well-being. EFNEP reaches youth audiences through in-school programs, out-of-school programs, and summer day camps.

In addition, NIFA sponsors research, education and extension involving the community to increase better lifestyles decision making and selection of healthy, nutritious affordable foods; on food assistance policy, health promotion, and community dimensions of nutrition and food security; to improve the quality and quantity of data to assess dietary and nutritional status and physical fitness; and on food choices and their determinants, including cost, education, and environmental and socioeconomic factors. The 4-H Afterschool Program helps youth develop healthy lifestyles and behaviors. Extension staff works with school systems to develop educational materials in the areas of health and nutrition. 4-H Afterschool works

toward a vision that all children and youth are in safe, healthy, and enriching environments when away from their parents.

NIFA supports numerous research and extension activities to enhance the competitiveness and sustainability of rural and farm economies, ranging from the development of new food products to improvements in productivity and financial management. NIFA sponsors vital research and development contributions for new food products and technologies, quality improvements, new uses, and value added processes that enhance market opportunities for agricultural products. Through extension, NIFA and its partners effectively demonstrate and transfer this knowledge to users.

Annual activities ensure that the relevance, quality and productivity of newly funded education, research, and extension projects are specifically linked to ensuring that all of America's children have access to safe, nutritious, and balanced meals. This is accomplished through guidance for annual plans of work, the preparation of requests for applications, funding meritorious proposals and plans, and oversight of previously funded work.

## NATIONAL INSTITUTE FOR FOOD AND AGRICULTURE

### Summary of Budget Performance Key Performance Outcomes and Measures

Key outcomes and performance measures under each of the agency's strategic goals as outlined below:

**Goal:** Assist rural communities to create prosperity so they are self-sustaining, repopulating and economically thriving.

#### Key Outcomes:

- 2.1 - Expanded science-based knowledge and technologies to generate high-quality products and processes by: (1) increasing knowledge of bioenergy and biomass conversion, (2) creating new commercially viable and marketable alternative crops, and alternative markets for non-food products from existing crops, and (3) establishing new integrated research and extension programs and multi-disciplinary graduate education training programs.
- 2.2 - Increased efficiency of the agricultural production system by: (1) expanding information to model feed utilization for animal species, (2) releasing new or improved varieties or germplasm with enhanced pest or disease resistance, (3) further understanding the biological role of gene sequences in plants, animals, microbes and insects, (4) strengthening masters degree level courses in the food and agricultural sciences, particularly at minority-serving institutions, (5) increasing the number of minority students participating in the workforce by funding minority-serving projects at Hispanic serving institutions, 1890 institutions, 1994 institutions, Alaska-native serving, native-Hawaiian serving institutions, and (6) increasing the number of socially disadvantaged minority farmers and ranchers who are knowledgeable, eligible, and participating in USDA farm programs.
- 2.3 - Increased producers' knowledge of principles and techniques of risk management.
- 3.1 - Expanded economic opportunities in Rural America and increased knowledge pertaining to economic diversification, community planning, service infrastructure, local government, youth/adult workforce planning, and civic engagement through innovative integrated research and extension projects targeted to regional business, economic and business development.
- 3.2 - Increased knowledge among county based staff and community leadership in order to provide research-based practices to encourage appropriate community capitol development which enhances business and economic development, the availability of appropriate education and health services, transportation networks and the vibrant community connections. Electronic deployment of information to increase the social, cultural, human and economic capitol available for more nimble and creative community responses to needs.
- 4.2 - Expanded science-based information and technologies and reduced number and severity of agricultural pest and disease outbreaks through: (1) connection and data exchange among national plant and animal disease diagnostic networks, (2) increased resource efficiency and decreased economic risk regarding the adoption of sustainable pest management tactics, (3) developed capacity to minimize or mitigate occupational and non-occupational human health risks associated with pest management, and (4) increased capacity in minimizing or mitigating environmental risk associated with pest management.

#### Key Performance Measures:

- Cumulative number of biochemical or thermochemical technologies which are developed and used commercially for the conversion of biomass to fuels.
- Number of commercially viable perennial grasses with increased lignocellulosic energy values grown by U.S. farmers by 2021.
- 50% reduction in net farm energy use from 2000 level by 2021.
- 10% reduction in U.S. gasoline consumption as a result of sustainable production of high-quality, cost-effective feedstocks, by 2021.
- The number of farmers and ranchers that gained an economic, environmental or quality-of-life benefit from a change in practice learned by participating in a SARE project.
- The cumulative number of specific plant diseases labs are prepared to detect.

- The cumulative number of specific animal diseases labs are prepared to detect
- Cereal yield losses due to fungal pathogens reduced by 50% worldwide by 2021
- Effectiveness Measure - Portfolio Review Score - Portfolios of projects are assessed by experts on an annual (internal experts) and 5-year basis (external experts) to determine progress toward solving targeted national problems reflected in the agency and department goals.
- Cumulative dollars (thousands) saved each year for grant review
- Proposal Review Time in Days

<b>Performance Measure</b>	<b>2006 Actual</b>	<b>2007 Actual</b>	<b>2008 Actual</b>	<b>2009 Actual</b>	<b>2010 Target</b>	<b>2011 Target</b>
Cumulative number of biochemical or thermochemical technologies which are developed and used commercially for the conversion of biomass to fuels.	3	3	4	4	5	5
Number of commercially viable perennial grasses with increased lignocellulosic energy values grown by U.S. farmers by 2021				0	0	10*
50% reduction in net farm energy use from 2000 level by 2021		\$12.9B 5.4% of expenses	NA	NA	NA	\$6.45B* 2.7% of expenses
10% reduction in U.S. gasoline consumption as a result of sustainable production of high-quality, cost-effective feedstocks, by 2021			8.9M barrels per day	NA	NA	8.0 barrels per day*
The number of farmers and ranchers that gained an economic, environmental or quality-of-life benefit from a change in practice learned by participating in a SARE project	9,610	10,240	10,849	11,300	11,800	12,300
The cumulative number of specific plant diseases labs are prepared to detect	6	7	8	10	10	11
The cumulative number of specific animal diseases labs are prepared to detect	8	8	9	9	10	10
Cereal yield losses due to fungal pathogens reduced by 50% worldwide by 2021			2, 121 metric tons	NA	NA	1,060 metric tons
Effectiveness Measure - Portfolio Review Score - Portfolios of projects are assessed by experts on an annual (internal experts) and 5-year basis (external experts) to determine progress toward solving targeted national problems reflected in the agency and department goals.  Units: The reviews assessed the portfolios based on the OMB R&D criteria of relevance, quality & performance. They are then assigned an overall quantitative score from 1-100.	86	88	88	87	89	90
Efficiency Measure - Cumulative dollars (thousands) saved each year for grant review: (total saved by NIFA for all goals)	\$1,398	\$1,744	\$2,069	\$2,369	\$2,779	\$3,197
Efficiency Measure - Proposal Review Time in Days	198	196	194	189	184	184

**Goal:** Ensure our national forests and private working lands are conserved, restored and made more resilient to climate change, while enhancing our water resources.

Key Outcomes:

- 6 - Expanded and disseminated science-based knowledge and information for management of the nation's natural resources and environment, including soil, air and water, in agricultural, forest, and range working lands and ecosystems.

Key Performance Measures:

- Assessment and control technologies for agricultural emissions developed and used.
- Effectiveness Measure - Portfolio Review Score - Portfolios of projects are assessed by experts on an annual (internal experts) and 5-year basis (external experts) to determine progress toward solving targeted national problems reflected in the agency and department goals.
- Cumulative dollars saved each year for grant review.
- Proposal Review Time in Days.

Performance Measure	2006 Actual	2007 Actual	2008 Actual	2009 Actual	2010 Target	2011 Target
Assessment and control technologies for agricultural emissions developed and used	7	9	9	12	14	16
Effectiveness Measure - Portfolio Review Score - Portfolios of projects are assessed by experts on an annual (internal experts) and 5-year basis (external experts) to determine progress toward solving targeted national problems reflected in the agency and department goals.  Units: The reviews assessed the portfolios based on the OMB R&D criteria of relevance, quality & performance. They are then assigned an overall quantitative score from 1-100.	86	88	88	87	89	90
Efficiency Measure - Cumulative dollars (thousands) saved each year for grant review: (total saved by NIFA for all goals)	\$1,398	\$1,744	\$2,069	\$2,369	\$2,779	\$3,197
Efficiency Measure - Proposal Review Time in Days	198	196	194	189	184	184

**Goal:** Help America promote agricultural production and biotechnology exports as America works to increase food security.

Key Outcomes:

- 1.2 - Expanded international economic development and trade capacity building through: (1) partnerships between U.S. and counterpart faculty in developing or transitioning countries to strengthen science applications and (2) technical assistance provided to these countries to support market and agricultural sector development.
- 3.1 - Expanded economic opportunities in Rural America and increased knowledge pertaining to economic diversification, community planning, service infrastructure, local government, youth/adult workforce planning, and civic engagement through innovative integrated research and extension projects targeted to regional business, economic and business development.

Key Performance Measures:

- Effectiveness Measure - Portfolio Review Score - Portfolios of projects are assessed by experts on an annual (internal experts) and 5-year basis (external experts) to determine progress toward solving targeted national problems reflected in the agency and department goals.
- Cumulative dollars saved each year for grant review.
- Proposal Review Time in Days.

<b>Performance Measure</b>	<b>2006 Actual</b>	<b>2007 Actual</b>	<b>2008 Actual</b>	<b>2009 Actual</b>	<b>2010 Target</b>	<b>2011 Target</b>
Effectiveness Measure - Portfolio Review Score - Portfolios of projects are assessed by experts on an annual (internal experts) and 5-year basis (external experts) to determine progress toward solving targeted national problems reflected in the agency and department goals.  Units: The reviews assessed the portfolios based on the OMB R&D criteria of relevance, quality & performance. They are then assigned an overall quantitative score from 1-100.	86	88	88	87	89	90
Efficiency Measure - Cumulative dollars (thousands) saved each year for grant review: (total saved by NIFA for all goals)	\$1,398	\$1,744	\$2,069	\$2,369	\$2,779	\$3,197
Efficiency Measure - Proposal Review Time in Days	198	196	194	189	184	184

**Goal:** Ensure that all of America's children have access to safe, nutritious, and balanced meals

Key Outcomes:

- 2.1 - Expanded science-based knowledge and technologies to generate high-quality products and processes by: (1) increasing knowledge of bioenergy and biomass conversion, (2) creating new commercially viable and marketable alternative crops, and alternative markets for non-food products from existing crops, and (3) establishing new integrated research and extension programs and multi-disciplinary graduate education training programs.
- 3.2 - Increased knowledge among county based staff and community leadership in order to provide research-based practices to encourage appropriate community capitol development which enhances business and economic development, the availability of appropriate education and health services, transportation networks and the vibrant community connections. Electronic deployment of information to increase the social, cultural, human and economic capitol available for more nimble and creative community responses to needs.
- 4.1 - Reduced incidence or prevalence of food borne illnesses and contaminants through increased knowledge and/or the development of mitigation, intervention, or prevention strategies via research or integrated research, education, and extension projects in the following food safety areas: pre-harvest food production and transportation, post-harvest processing and distribution, retail preparation and distribution, and consumer preparation, consumption, and behavior.
- 5.1 - New knowledge that clarifies dietary health relationships in order to support better dietary recommendations and improved food products.

Key Performance Measures:

- Methods that reduce food contamination and growth of foodborne organisms.
- Dietary improvements by EFNEP participants.
- Development and use of effective intervention methods and strategies to change behavior and improve diet and physical activity in target populations.
- Proportion of U.S. adults who are obese (BMI > 30%) declines by 10 % from the 2005 – 2006 level by 2021.
- Effectiveness Measure - Portfolio Review Score - Portfolios of projects are assessed by experts on an annual (internal experts) and 5-year basis (external experts) to determine progress toward solving targeted national problems reflected in the agency and department goals.
- Cumulative dollars saved each year for grant review.
- Proposal Review Time in Days.

<b>Performance Measure</b>	<b>2006 Actual</b>	<b>2007 Actual</b>	<b>2008 Actual</b>	<b>2009 Actual</b>	<b>2010 Target</b>	<b>2011 Target</b>
Methods that reduce food contamination and growth of foodborne organisms	10	12	13	15	17	19
Dietary improvements by EFNEP participants	92%	93%	93%	93%	93%	93%
Development and use of effective intervention methods and strategies to change behavior and improve diet and physical activity in target populations	2	3	4	5	6	7
Proportion of U.S. adults who are obese (BMI > 30%) declines by 10 % from the 2005 – 2006 level by 2021	33.3% of men; 35.3% of women	NA	NA	NA	NA	30% of men; 31.8% of women
Effectiveness Measure - Portfolio Review Score - Portfolios of projects are assessed by experts on an annual (internal experts) and 5-year basis (external experts) to determine progress toward solving targeted national problems reflected in the agency and department goals.  Units: The reviews assessed the portfolios based on the OMB R&D criteria of relevance, quality & performance. They are then assigned an overall quantitative score from 1-100.	86	88	88	87	89	90
Efficiency Measure - Cumulative dollars (thousands) saved each year for grant review: (total saved by NIFA for all goals)	\$1,398	\$1,744	\$2,069	\$2,369	\$2,779	\$3,197
Efficiency Measure - Proposal Review Time in Days	198	196	194	189	184	184

**NATIONAL INSTITUTE OF FOOD AND AGRICULTURE  
FULL COST BY STRATEGIC OBJECTIVE**

Assist rural communities to create prosperity so they are self-sustaining, repopulating, and economically thriving

Program	Program Items	2009 Amount (\$000)	2010 Amount (\$000)	2011 Amount (\$000)
Research	Program	\$420,425	\$478,466	\$507,729
	Administrative (Direct Costs)	11,210	12,758	13,541
	Indirect Costs	6,307	7,178	7,618
	Total Costs	437,942	498,402	528,888
Education	Program	44,952	54,224	59,391
	Administrative (Direct Costs)	1,199	1,446	1,584
	Indirect Costs	674	813	891
	Total Costs	46,825	56,483	61,866
Extension	Program	286,483	278,228	279,555
	Administrative (Direct Costs)	7,640	7,541	7,455
	Indirect Costs	4,297	4,259	4,194
	Total Costs	298,420	290,028	291,204
Integrated	Program	1,260	1,260	1,260
	Administrative (Direct Costs)	33	33	33
	Indirect Costs	19	19	19
	Total Costs	1,312	1,312	1,312
Endowment Funds	Program	11,880	11,880	21,880
	Administrative (Direct Costs)	0	0	0
	Indirect Costs	0	0	0
	Total Costs	11,880	11,880	21,880
	Total Costs for Priority 1 (program, direct, indirect)	796,379	858,105	905,150
<b>Does not include Endowment</b>	Program	753,120	812,178	847,935
	Administrative (Direct Costs)	20,082	21,778	22,613
	Indirect Costs	11,297	12,269	12,722
	Total Costs	784,499	846,225	883,270
Endowment	Program	11,880	11,880	21,880
Total		796,379	858,105	905,150

**NATIONAL INSTITUTE OF FOOD AND AGRICULTURE  
FULL COST BY STRATEGIC OBJECTIVE**

Ensure our national forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing our water resources

<b>Program</b>	<b>Program Items</b>	<b>2009 Amount (\$000)</b>	<b>2010 Amount (\$000)</b>	<b>2011 Amount (\$000)</b>
Research	Program	\$112,188	\$125,446	\$133,147
	Administrative (Direct Costs)	2,992	3,345	3,551
	Indirect Costs	1,683	1,882	1,997
	<b>Total Costs</b>	<b>116,863</b>	<b>130,673</b>	<b>138,695</b>
Extension	Program	51,220	53,681	54,827
	Administrative (Direct Costs)	1,366	1,432	1,462
	Indirect Costs	768	805	822
	<b>Total Costs</b>	<b>53,354</b>	<b>55,918</b>	<b>57,111</b>
Integrated	Program	12,143	12,143	0
	Administrative (Direct Costs)	323	323	0
	Indirect Costs	183	183	0
	<b>Total Costs</b>	<b>12,649</b>	<b>12,649</b>	<b>0</b>
<b>Total Costs for Priority 2 (program, direct, indirect)</b>		<b>182,866</b>	<b>199,240</b>	<b>195,806</b>
	Program	182,866	199,240	195,806
	Administrative (Direct Costs)	4,681	5,100	5,013
	Indirect Costs	2,634	2,870	2,819
	<b>Total Costs</b>	<b>182,866</b>	<b>199,240</b>	<b>195,806</b>

**NATIONAL INSTITUTE OF FOOD AND AGRICULTURE  
FULL COST BY STRATEGIC OBJECTIVE**

Help America promote agricultural production and biotechnology exports as America works to increase food security

<b>Program</b>	<b>Program Items</b>	<b>2009 Amount (\$000)</b>	<b>2010 Amount (\$000)</b>	<b>2011 Amount (\$000)</b>
Research	Program	\$26,015	\$34,361	\$34,260
	Administrative (Direct Costs)	695	918	915
	Indirect Costs	389	514	513
	Total Costs	27,099	35,793	35,688
Extension	Program	31,702	39,888	30,986
	Administrative (Direct Costs)	846	1,764	800
	Indirect Costs	475	598	449
	Total Costs	33,023	42,250	32,235
Integrated	Program	92,455	95,486	89,820
	Administrative (Direct Costs)	2,465	2,547	2,395
	Indirect Costs	1,387	1,432	1,347
	Total Costs	96,307	99,465	93,562
	Total Costs for Priority 3 (program, direct, indirect)	156,429	177,508	161,485
	Programs	150,172	169,735	155,066
	Administrative (Direct Costs)	4,006	5,229	4,110
	Indirect Costs	2,251	2,544	2,309
	Total Costs	156,429	177,508	161,485

**NATIONAL INSTITUTE OF FOOD AND AGRICULTURE  
FULL COST BY STRATEGIC OBJECTIVE**

Ensure that all of America's children have access to safe, nutritious, and balanced meals

Program	Program Items	2009 Amount (\$000)	2010 Amount (\$000)	2011 Amount (\$000)
Research	Program	\$82,693	\$95,193	\$103,831
	Administrative (Direct Costs)	2,205	2,538	2,769
	Indirect Costs	1,240	1,428	1,557
	Total Costs	86,138	99,159	108,157
Extension	Program	129,074	134,138	124,489
	Administrative (Direct Costs)	3,442	3,577	3,347
	Indirect Costs	1,936	2,012	1,882
	Total Costs	134,452	139,727	129,718
Integrated	Program	14,012	14,012	0
	Administrative (Direct Costs)	374	374	0
	Indirect Costs	210	210	0
	Total Costs	14,596	14,596	0
	Total Costs for Priority 4 (program, direct, indirect)	235,186	253,482	237,875
All Programs	Programs	225,779	243,343	228,320
	Administrative (Direct Costs)	6,021	6,489	6,116
	Indirect Costs	3,386	3,650	3,439
	Total Costs	235,186	253,482	237,875