

TITLE VII—RESEARCH SECTION-BY-SECTION

Subtitle A – General Provisions

SEC. 7101. SINGLE BUDGET SUBMISSION.

- Requires the President to submit with the annual budget request a single, combined line item reflecting the total funding request for agriculture research, extension and related activities for the fiscal year and the previous five fiscal years.

SEC. 7102. ADDITIONAL PURPOSES OF AGRICULTURAL RESEARCH AND EXTENSION.

- Adds additional purposes of agricultural research and extension to include:
 - Integrating and organizing agricultural research, extension, education and related programs to respond to 21st century challenges, and to continue to meet the needs of society from a local, Tribal, State, National and international perspective;
 - Minimize duplication and maximize coordination of the program at all levels;
 - Position the research, extension, education and related programs system in order to expand the portfolio to increase its contribution to society.

SEC. 7103. THE AGRICULTURAL RESEARCH INSTITUTE.

- Establishes six research institutes, collectively known as the “Agricultural Research Institute,” within the office of the Under Secretary of Agriculture for Research, Education, and Economics. The Agricultural Research Institute will coordinate the programs and activities of the research agencies within the mission area to the maximum extent practicable.
- The Agricultural Research Institute will include the following institutes:
 - Renewable energy, resources, and environment;
 - Food safety, nutrition, and health;
 - Plant health and production;
 - Animal health and production;
 - Agriculture systems and technology; and
 - Agriculture economics and rural communities.
- Each research institute will have a Director appointed by the Under Secretary, and will formulate programs, develop strategic planning and priorities for department-wide research, education, extension and related activities.
- The Under Secretary, along with the Directors and in consultation with the National Agricultural Research, Education and Economics Advisory Board, will direct research, education, extension, and related programs for relevant departmental agencies, and ensure that strategies and funds are coordinated throughout.
- The Under Secretary will fund each research institute with funds available appropriated to the agencies within the mission area.
- Requires the Under Secretary to develop and implement specialty crop research activities; facilitate information delivery; and ensure coordination among research initiatives related to specialty crops.

SEC. 7104. ESTABLISHMENT OF COMPETITIVE GRANT PROGRAMS UNDER THE NATIONAL INSTITUTE FOR FOOD AND AGRICULTURE.

- Establishes the National Institute for Food and Agriculture within the Cooperative State Research, Education, and Extension Service to administer all competitive grants.

SEC. 7105. FUNDING FOR THE INSTITUTE FOR FUTURE FOOD AND AGRICULTURAL SYSTEMS.

- Requires the Secretary to use 30 percent of funding for competitive grants provided to the National Research Initiative to carry out a competitive grants program, and to transfer \$200,000,000 from the Initiative for Future Agriculture and Food Systems account.

SEC. 7106. AGRICULTURAL BIOENERGY AND BIOBASED PRODUCTS RESEARCH INITIATIVE.

- Amends the Agricultural Research, Extension, and Education Reform Act of 1998 to establish a bioenergy and biobased products research initiative to enhance the production, sustainability and conversion of biomass to renewable fuels and related products.
- The research initiative will be supported by a bioenergy and biobased product laboratory network that will focus research on improving biomass production and sustainability, and improving biomass conversion in biorefineries.
- The Director of the research institute established under Sec. 7103 will coordinate projects and activities under the Biomass Research and Development Act of 2000 to coordinate and maximize the strengths of the Department of Agriculture and Department of Energy.
- The Secretary may carry out research and award grants on a competitive basis.
- \$50,000,000 is authorized to be appropriated for each of fiscal years 2008 through 2012 to carry out this section.

SEC. 7107. ADVISORY BOARD.

- Increases the maximum annual limitation on expenses for the National Agricultural Research, Extension, Education, and Economics Advisory Board to \$500,000.

SEC. 7108. RENEWABLE ENERGY COMMITTEE.

- Requires the National Agricultural Research, Extension, Education, and Economics Advisory Board to establish and appoint initial members to a permanent renewable energy committee, responsible for studying the research, extension, and economics programs affecting the renewable energy industry. The renewable energy committee will submit annual reports to the Advisory Board with the committee's findings and recommendations.
- The Renewable Energy Committee shall coordinate with the Biomass Research and Development Act Committee.
- When preparing the annual budget recommendations for the Department, the Secretary shall take into account the recommendations made by the committee and adopted by the Advisory Board.

SEC. 7109. SPECIALTY CROP RESEARCH INITIATIVE.

- Establishes the Specialty Crop Research Initiative to develop and disseminate science-based tools to address the needs of specific crops and their regions, including work in plant breeding and genetics, safety, quality, and yield; efforts to identify and address threats posed by invasive species; and efforts to improve production.
- The Secretary may carry out research and award grants on a competitive basis.
- \$100,000,000 is authorized to be appropriated for each of fiscal years 2008 through 2012 to carry out this section.

SEC. 7110. SPECIALTY CROP COMMITTEE REPORT.

- Expands the list of recommendations the specialty crops committee must make annually to the National Agricultural Research, Extension, Education, and Economics Advisory Board to include economic analyses of the specialty crop sector and data that provide applied information useful to specialty crop growers.

SEC. 7111. ESTABLISHMENT OF RESEARCH LABORATORIES FOR ANIMAL DISEASES.

- Authorizes the Secretary to establish animal disease research laboratories, and to the extent that an animal disease constitutes a threat to the livestock industry, authorizes the Secretary to conduct research, diagnostics, and other activities.
- Prohibits a person, State or Federal agency from importing, transporting or storing at a research facility a live virus that the Secretary determines to be a threat to livestock, such as foot-and-mouth disease. The Secretary may, however, import, transport or store such a live virus, and may also allow for a person, State or Federal agency to do the same, if it is in the public interest.

Subtitle B—National Agricultural Research, Extension, and Teaching Policy Act of 1977

This subtitle reauthorizes various grants, programs, centers, appropriations, facilities, institutions under NARETPA.

SEC. 7201. GRANTS AND FELLOWSHIPS FOR FOOD AND AGRICULTURAL SCIENCES EDUCATION.

- Authorizes appropriations of \$60,000,000 for grants and fellowships for food and agricultural sciences education for each of the fiscal years through 2012.

SEC. 7202. GRANTS FOR RESEARCH ON PRODUCTION AND MARKETING OF ALCOHOLS AND INDUSTRIAL HYDROCARBONS FROM AGRICULTURAL COMMODITIES AND FOREST PRODUCTS.

- Authorizes appropriations of \$20,000,000 for each of the fiscal years through 2012 for grants to colleges, universities, and Federal laboratories to conduct research related to alcohol and other forms of biomass fuels, and the development of the most economical and commercially feasible means of producing, collecting, and transporting agricultural crops, wastes, residues, and byproducts for use as feedstocks for the production of alcohol and other forms of biomass energy.

SEC. 7203. POLICY RESEARCH CENTERS.

- Authorizes funds to be appropriated as necessary in each of the fiscal years through 2012, for grants and cooperative agreements with policy research centers to conduct research and education programs concerning the effect of policies on the farm and agricultural sectors; the environment; rural families and economies; and consumers, food and nutrition.

SEC. 7204. HUMAN NUTRITION INTERVENTION AND HEALTH PROMOTION RESEARCH PROGRAM.

- Authorizes funds to be appropriated as necessary in each of the fiscal years through 2012, for grants for a multi-year research initiative on human nutrition intervention and health promotion.

SEC. 7205. PILOT RESEARCH PROGRAM TO COMBINE MEDICAL AND AGRICULTURAL RESEARCH.

- Authorizes appropriations of \$10,000,000 for each of the fiscal years through 2012, for the Secretary to conduct a pilot research program to link major cancer and heart disease research efforts with agricultural research efforts to identify compounds in vegetables and fruits that prevent these diseases.

SEC. 7206. NUTRITION EDUCATION PROGRAM.

- Authorizes appropriations of \$83,000,000 for each of the fiscal years through 2012, to carry out the food and nutrition education program.

SEC. 7207. CONTINUING ANIMAL HEALTH AND DISEASE RESEARCH PROGRAMS.

- Authorizes funds to be appropriated as necessary up to \$25,000,000 for each of the fiscal years through 2012, to support continuing animal health and disease research programs.

SEC. 7208. APPROPRIATIONS FOR RESEARCH ON NATIONAL OR REGIONAL PROBLEMS.

- Authorizes funds to be appropriated as necessary up to \$35,000,000 for each of the fiscal years through 2012, to support research on specific national or regional animal health or disease problems, or national or regional problems relating to pre-harvest, on-farm food safety.

SEC. 7209. GRANTS TO UPGRADE AGRICULTURAL AND FOOD SCIENCES FACILITIES AT 1890 LAND-GRANT COLLEGES, INCLUDING TUSKEGEE UNIVERSITY.

- Authorizes appropriations of \$25,000,000 for each of the fiscal years through 2012, for grants to 1890 land-grant institutions to acquire and improve agricultural and food sciences facilities and equipment.

SEC. 7210. NATIONAL RESEARCH AND TRAINING VIRTUAL CENTERS.

- Authorizes appropriations of \$2,000,000 for each of the fiscal years through 2012, to make a competitive grant to five national research and training virtual centers located at 1890 land-grant institutions.

SEC. 7211. MATCHING FUNDS REQUIREMENT FOR RESEARCH AND EXTENSION ACTIVITIES OF 1890 INSTITUTIONS.

- Establishes a formula for States to provide matching funds to be provided to 1890 land-grant institutions for agricultural research, extension, and education activities, through fiscal year 2012.

SEC. 7212. HISPANIC-SERVING INSTITUTIONS.

- Authorizes appropriations of \$20,000,000 for each of the fiscal years through 2012, to make competitive grants to Hispanic-serving institutions to promote and strengthen the institutions' abilities to carry out education, applied research, and related community development programs.

SEC. 7213. COMPETITIVE GRANTS FOR INTERNATIONAL AGRICULTURAL SCIENCE AND EDUCATION PROGRAMS.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, to make competitive grants directed to agricultural research, extension, and teaching activities to colleges and universities to strengthen U.S. economic competitiveness and promote international market development.

SEC. 7214. RESEARCH EQUIPMENT GRANTS.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, to make competitive grants for the acquisition of special purpose scientific research equipment for use in the food and agricultural science programs of eligible institutions.

SEC. 7215. UNIVERSITY RESEARCH.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, for certain existing and new agriculture research programs.

SEC. 7216. EXTENSION SERVICE.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, to carry out the extension programs of the Department of Agriculture.

SEC. 7217. SUPPLEMENTAL AND ALTERNATIVE CROPS.

- Requires the Secretary to develop and implement a research project for the development of supplemental and alternative crops.

SEC. 7218. AQUACULTURE RESEARCH FACILITIES.

- Authorizes appropriations of \$20,000,000 for each of the fiscal years through 2012, to make competitive grants to Hispanic-serving institutions to promote and strengthen the institutions' abilities to carry out education, applied research, and related community development programs.

SEC. 7219. RANGELAND RESEARCH.

- Authorizes funds to be appropriated not to exceed \$10,000,000 for each of the fiscal years through 2012, to make grants to land-grant colleges and universities, State agricultural experiment stations, and other institutions to conduct rangeland research.

SEC. 7220. SPECIAL AUTHORIZATION FOR BIOSECURITY PLANNING AND RESPONSE.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, for biosecurity planning and response.

SEC. 7221. RESIDENT INSTRUCTION AND DISTANCE EDUCATION GRANTS PROGRAM FOR INSULAR AREA INSTITUTIONS OF HIGHER EDUCATION.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, for the Secretary to make competitive or non-competitive grants to eligible institution in insular areas to strengthen the capacity of such institutions to carry out distance food and agricultural education programs using digital network technologies.
- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, for competitive grants to insular area institutions to strengthen educational capacities in the food and agricultural sciences.

Subtitle C—Food, Agriculture, Conservation, and Trade Act of 1990

This subtitle reauthorizes various programs, initiatives, and a clearinghouse under FACTA.

SEC. 7301. NATIONAL GENETICS RESOURCES PROGRAM.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, for the national genetics resources program.

SEC. 7302. HIGH-PRIORITY RESEARCH AND EXTENSION INITIATIVE.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, for competitive grants for specified high-priority research and extension initiatives.

SEC. 7303. NUTRIENT MANAGEMENT RESEARCH AND EXTENSION INITIATIVE.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, for competitive grants for the nutrient management research and extension initiative.

SEC. 7304. AGRICULTURAL TELECOMMUNICATIONS PROGRAM.

- Authorizes funds to be appropriated not to exceed \$12,000,000 for each of the fiscal years through 2012, to encourage the development and utilization of an agricultural communications network to strengthen agricultural extension, resident education and research, and marketing of agricultural commodities.

SEC. 7305. ASSISTIVE TECHNOLOGY PROGRAM FOR FARMERS WITH DISABILITIES.

- Authorizes appropriations of \$6,000,000 for each of the fiscal years through 2012, to make demonstration grants to support cooperative programs between State Cooperative Extension Service agencies and private nonprofit disability organizations to provide on-

the-farm agricultural education and assistance for individuals with disabilities who are engaged in farming.

SEC. 7306. NATIONAL RURAL INFORMATION CENTER CLEARINGHOUSE.

- Authorizes appropriations of \$500,000 for each of the fiscal years through 2012, National Rural Information Center Clearinghouse to provide and distribute information and data to any industry, organization, or Federal, State, or local government entity about programs and services provided in rural areas.

Subtitle D—Agricultural Research, Extension, and Education Reform Act of 1998

This subtitle reauthorizes various partnerships, initiatives, grants, and offices under AREERA.

SEC. 7401. PARTNERSHIPS FOR HIGH-VALUE AGRICULTURAL PRODUCT QUALITY RESEARCH.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, to make competitive grants to eligible partnerships to coordinate and manage research and extension activities to enhance the quality of high-value agricultural products.

SEC. 7402. PRECISION AGRICULTURE.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, to make competitive grants to conduct research, education, or information dissemination projects for the development and advancement of precision agriculture.

SEC. 7403. BIOBASED PRODUCTS.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, to develop, commercialize, and promote the use of biobased products.

SEC. 7404. THOMAS JEFFERSON INITIATIVE FOR CROP DIVERSIFICATION.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, to fund the Thomas Jefferson Initiative for Crop Diversification, which supports research and development on the production, marketing and efficient use of new and nontraditional crops needed to strengthen and diversify the agricultural production base of the U.S.

SEC. 7405. INTEGRATED RESEARCH, EDUCATION, AND EXTENSION COMPETITIVE GRANTS PROGRAM.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, for an integrated research, education, and extension competitive grant program.

SEC. 7406. SUPPORT FOR RESEARCH REGARDING DISEASES OF WHEAT, TRITICALE, AND BARLEY CAUSED BY FUSARIUM GRAMINEARUM OR BY TILLETIA INDICA.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, to make grants to consortia of land-grant colleges and universities to enhance the ability of the consortia to conduct multi-State research projects aimed at understanding

and combating diseases of wheat, triticale, and barley caused by *Fusarium graminearum* and related fungi.

SEC. 7407. BOVINE JOHNE'S DISEASE CONTROL PROGRAM.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, to conduct research, testing and evaluation for the control and management of Johne's disease in livestock.

SEC. 7408. GRANTS FOR YOUTH ORGANIZATIONS.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, to make grants to specified youth organizations to establish pilot projects to expand the programs carried out by the organizations in rural areas.

SEC. 7409. AGRICULTURAL BIOTECHNOLOGY RESEARCH AND DEVELOPMENT FOR DEVELOPING COUNTRIES.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, to make competitive grants to institutions or nonprofit organizations to develop agricultural biotechnology for developing countries.

SEC. 7410. OFFICE OF PEST MANAGEMENT POLICY.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, for the Office of Pest Management Policy to provide for the effective coordination of agricultural policies related to pesticides and pest management tools.

SEC. 7411. FUSARIUM GRAMINEARUM GRANTS.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, to make grants to consortia of land-grant colleges and universities to enhance the ability of the consortia to conduct multi-State research projects aimed at understanding and combating diseases of wheat, triticale, and barley caused by *Fusarium graminearum* and related fungi.

Subtitle E—Other Laws

SEC. 7501. CRITICAL AGRICULTURAL MATERIALS ACT.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, to carry out the Critical Agricultural Materials Act.

SEC. 7502. EQUITY IN EDUCATIONAL LAND-GRANT STATUS ACT OF 1994.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, for specified institutions to be considered land grant colleges.
- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, for the Secretary to provide grants to an institution named in the Equity in Educational Land-Grant Status Act of 1994.

SEC. 7503. AGRICULTURAL EXPERIMENT STATION RESEARCH FACILITIES ACT.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, for the study, plan, design, structure, and related costs of agricultural research facilities under the Research Facilities Act.

SEC. 7504. NATIONAL AGRICULTURAL RESEARCH, EXTENSION, AND TEACHING POLICY ACT AMENDMENTS OF 1985.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, for the cost of planning, construction, and other public improvements for Federal agricultural research facilities.

SEC. 7505. COMPETITIVE, SPECIAL, AND FACILITIES RESEARCH GRANT ACT (NATIONAL RESEARCH INITIATIVE).

- Authorizes appropriations of \$500,000,000 for each of the fiscal years through 2012, to provide competitive research grants for high priority research.

SEC. 7506. BEGINNING FARMER AND RANCHER DEVELOPMENT PROGRAM.

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, for the farmer and rancher development program to provide training, education, outreach, and technical assistance initiatives for beginning farmers or ranchers.

SEC. 7507. AGRICULTURAL RISK PROTECTION ACT OF 2000 (CARBON CYCLE RESEARCH).

- Authorizes funds to be appropriated as necessary for each of the fiscal years through 2012, to provide a grant to the Consortium for Agricultural Soils Mitigation of Greenhouse Gasses.

SEC. 7508. RENEWABLE RESOURCES EXTENSION ACT OF 1978.

- Authorizes appropriations of \$30,000,000 for each of the fiscal years through 2012, for funding to eligible States with forests yielding renewable resources.

SEC. 7509. NATIONAL AQUACULTURE ACT OF 1980.

- Authorizes appropriations of \$1,000,000 for the Department of Agriculture, Department of Commerce, and the Department of Interior, respectively, for each of the fiscal years through 2012, for funding for the National Aquaculture Act of 1980.

SEC. 7510. ORGANIC RESEARCH.

- Extends the Organic Research and Extension Initiative to examine optimal conservation and environmental outcomes for organically produced agricultural products, and to develop new and improved seed varieties that are particularly suited for organic agriculture.
- Authorizes appropriations of \$25,000,000 for each of fiscal years through 2012 for the Organic Research and Extension Initiative.