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## Title VIII

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# Research, Extension, and Education

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The 1996 Act amends and extends for two years (fiscal year 1996 and 1997) the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (NARETPA), relevant sections of the Food, Agriculture, Conservation and Trade Act of 1990 (the 1990 Act), and other related acts. The purposes of agricultural research, education, extension and eco-

nomics are expanded. A new advisory and review board is formed to replace the previously existing ones. The Act also authorizes new research, and clarifies and strengthens existing research, extension, and education programs. A task force is provided for by the 1996 Act to prepare a 10-year strategic plan for development, modernization construction, consolidation, and/or closure of Federal agricultural facilities and of facilities proposed to be constructed with Federal funds.

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## Subtitle A

# Modification and Extension of Activities Under the 1977 Act

NARETPA (originally enacted as Title XIV of the Food and Agriculture Act of 1977) established USDA as the lead agency for the food and agricultural sciences; emphasized that research, extension, and teaching are distinct missions of USDA; improved coordination and planning of USDA research; and established a new system of competitive grants for research and facilities (competitive grants for facilities have never been offered).

### Purposes of Agricultural Research, Extension and Education

The 1996 Act amends NARETPA (7 U.S.C. 3101) to define eight purposes of federally supported agricultural research, extension, and education. These eight purposes are to:

- (1) Enhance the competitiveness of the U.S. agriculture and food industry in an increasingly competitive world environment;
- (2) Increase the long-term productivity of U.S. agriculture and the food industry while maintaining and enhancing the natural resource base on which rural America and the United States agricultural economy depend;
- (3) Develop new uses and new products for agricultural commodities, such as alternative fuels, and develop new crops;
- (4) Support agricultural research and extension to promote economic opportunity in rural communities and to meet the increasing demand for information and technology transfer throughout the U.S. agriculture industry;
- (5) Improve risk management in the U.S. agriculture industry;
- (6) Improve the safe production of, processing of, and adding of value to, U.S. food and fiber resources

using methods that maintain the balance between yield and environmental soundness;

- (7) Support higher education in agriculture to give the next generation of Americans the knowledge, technology, and applications necessary to enhance the competitiveness of U.S. agriculture; and,
- (8) Maintain an adequate, nutritious, and safe supply of food to meet human nutritional needs and requirements.

### Establishment of a National Agricultural Research, Extension, Education, and Economics Advisory Board

The 1996 Act consolidates three existing boards—USDA's Agricultural Science and Technology Review Board, the Joint Council on Food and Agricultural Sciences, and the National Agricultural Research and Extension Users Advisory Board—into a single National Agricultural Research, Extension, Education, and Economics Advisory Board. This new Board will consist of 30 members appointed by the Secretary, representing a broad array of agricultural interests, including farm cooperatives, national farm organizations, national consumer interests groups, national conservation or natural resource groups, national aquaculture associations, food and agricultural transportation groups, national forestry groups, and others. Ex Officio members include the Secretary, the Under Secretary for Research, Education, and Economics, the Administrator of the Cooperative State Research, Education, and Extension Service, the Administrator of the Agricultural Research Service, the Administrator of the Economic Research Service, and the Administrator of the National Agricultural Statistics Service. The Board will remain in existence until September 30, 2002.

The Advisory Board is charged with reviewing and providing consultation to the Secretary and the land-grant colleges and universities on national policies and

priorities relating to agricultural research, extension, education, and economics. In its review, the Board will evaluate the results and effectiveness of agricultural research, education, extension, and economics with respect to policies and priorities. The Board will review and make recommendations to the Under Secretary for Research, Education, and Economics on the research, extension, education and economics portion of a mandated draft strategic plan (5 U.S.C. 306).

### **Federal Advisory Board Committee Act Exemption**

The 1996 Act specifically exempts groups composed of State cooperative institution employees, other public universities and postsecondary institution employees, and full-time Federal employees from the Federal Advisory Committee Act (FACA) provisions. The exemption applies to committees, boards, task forces, etc. created for purposes related to cooperative efforts in agricultural research, extension, or teaching. Meeting of such groups, however, are required to be announced in advance and open to the public.

### **Coordination and Planning of Agricultural Research, Extension, and Education**

The Secretary is required to develop and carry out a system to monitor and evaluate agricultural research and extension activities conducted or supported by USDA that will enable the Secretary to measure the impact and effectiveness of research, extension, and education programs according to priorities, goals, and mandates established by law. In developing the monitoring and evaluation system, the Secretary shall also incorporate information transfer technologies to optimize public access to research information.

### **Grants and Fellowships for Food and Agricultural Sciences Education**

The 1996 Act extends, through fiscal year 1997, USDA's role as the lead Federal agency for higher education in the food and agricultural sciences. NARETPA of 1977 is also amended to: (1) broaden eligibility to receive higher education grants to include research foundations maintained by eligible colleges

and universities, and (2) administer grants to build teaching and research capacity at colleges and universities with significant minority enrollments. NAREPTA is further amended to authorize USDA to administer national grants programs to promote and strengthen public secondary school education curricula, faculty, and enrollments in agriscience and agribusiness.

### **Grants for Research on the Production and Marketing of Alcohols and Industrial Hydrocarbons From Agricultural Commodities and Forest Products**

The 1996 Act extends through fiscal year 1997 the authorization of grants for research on the production and marketing of alcohol and industrial hydrocarbons from agricultural commodities and forest products. The Secretary may award grants to educational institutions and Federal laboratories to conduct research related to alcohol fuels, industrial oilseed crops for diesel fuel, other forms of biomass fuel, and other industrial hydrocarbons made from agricultural commodities and forest products; and to develop economical and commercially feasible means for 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.

### **Policy Research Centers**

The new legislation amends the NARETPA to authorize the Secretary to make grants, competitive grants, and special research grants, and enter into cooperative agreements and other contracting instruments with policy research centers including State experiment stations, colleges and universities, and other research institutions and private organizations, corporations, and individuals to conduct objective and operationally independent research and education programs on: (1) the farm and agricultural sectors, (2) the environment, (3) rural families, households and economies, and (4) consumers, food and nutrition. Funding may be provided for disciplinary and interdisciplinary research and education concerning policy research activities including: (1) quantification of the implications of public policies and regulations, (2) development of theoretical and research methods, (3) collection and analysis of data for policy makers, analysts, and individuals, and (4) development of programs to train analysts.

## **Human Nutrition Intervention and Health Promotion Research Program**

The Secretary is authorized to establish and award grants for multi-year research on human nutrition intervention and health promotion. Specific emphasis will be given to coordinated longitudinal research assessments of nutritional status and the implementation of unified, innovative intervention strategies that aim to identify and solve problems of nutritional inadequacy and contribute to the maintenance of health, well-being, performance, and productivity of individuals. A pilot research program (through CSREES) will combine medical and agricultural research to link major cancer and heart and other circulatory disease research with agricultural research to identify compounds in vegetables and fruits that may prevent these diseases.

## **Food and Nutrition Education Program**

The 1996 Act increases the authorization for appropriation to \$83 million annually for the Food and Nutrition Education Program (FNEP) through fiscal year 1997. This provision allows the Secretary to continue a national education program that includes the dissemination of the results of food and human nutrition research performed or funded by USDA. FNEP authorizes the employment and training of professional and paraprofessional aides to engage in direct nutrition education of low-income families and in other appropriate nutrition education programs.

## **Animal Health and Disease Research**

The 1996 Act extends animal health and disease research programs through fiscal year 1997. The legislation expands and clarifies the definition and purpose of animal health and disease research and encourages increased research coordination between State and Federal institutions. Commercial aquaculture is specifically included as a form of livestock and the scope of national or regional animal health and disease research is expanded to include pre-harvest, on-farm food safety, and animal well-being related research. The Animal Health Sciences Research Advisory Board authorization is repealed under the new legislation (see subtitle C).

## **Grants to Upgrade Agricultural and Food Science Facilities at 1890 Land-Grant Colleges**

The authorization is extended through fiscal year 1997 and an increase of \$8.0 million per fiscal year to \$15.0 million per fiscal year is provided. These grants are used to acquire and improve agricultural and food science facilities and equipment (including libraries) so that those eligible institutions (the 1890 institutions including Tuskegee University) may fully participate in the production of human capital.

## **National Research and Teaching Centennial Centers**

The Secretary's authority to make competitive grants through fiscal year 1997 is extended to institutions designated as national research and training centennial centers located at colleges (or consortia of such colleges) eligible to receive funds under the Act of August 30, 1890, including Tuskegee University. As stated under pre-existing legislation, the centers receiving grants shall be those having the best demonstrable capacity, as determined by the Secretary, to provide administrative leadership for goat research and training, agricultural engineering, water quality and agricultural production research, sustainable agricultural research, and domestic and international trade and development research.

## **Programs for Hispanic-Serving Institutions**

By amending the NARETPA, the 1996 Act establishes broad authority to make grants for the purpose of promoting and strengthening the ability of Hispanic-serving institutions to carry out education, applied research, and related community development programs. The authorization for fiscal year 1997 is \$20 million.

## **International Agricultural Research and Extension**

Minor amendments were made—but the 1996 Act does not extend this provision beyond fiscal year 1997.

## **Authorization of Appropriations for Agricultural Research Programs and Extension Education**

The 1996 legislation extends general authorization of appropriations for Federal agricultural research, extension, and education programs through fiscal year 1997. There is broad authorization of appropriation of such sums necessary to carry out the agricultural research, extension, and education activities and initiatives of USDA for fiscal year 1998 through fiscal year 2002, subject to specific provision in annual appropriation acts. This authorization is intended as a “fail-safe” mechanism in the event Congress has not completed an intended review of Federal agricultural research, extension, and education, and enacted replacement authorizing legislation.

### **Supplemental and Alternative Crops Research**

The authorization for appropriations for research to develop supplemental and alternative crops is extended through fiscal year 1997.

### **Aquaculture Assistance Programs**

The authorization of appropriations for aquaculture research facilities and for aquaculture research and

extension is extended through fiscal year 1997. The aquaculture research program focuses on the development, management, and production of important aquatic food species and on enhancing the safety of food products derived from the aquaculture industry. The new legislation repeals the requirement of an annual aquaculture report by the Secretary to Congress and includes ornamental fish in the definition of aquaculture.

### **Rangeland Research**

The authorization of appropriations for a rangeland research program, in coordination with the Renewable Resources Extension Act program, is extended through fiscal year 1997. As previously authorized, this program includes: (1) studies that address management of rangelands and agricultural land as integrated systems, (2) studies of methods designed for managing rangeland watersheds to maximize efficient use of water, to improve water quality, and water conservation, and to protect against onsite and offsite damage of rangeland resources, and (3) studies that focus on revegetation and rehabilitation of rangelands. The requirement for the Secretary to submit a report to the Congress and the President outlining the progress of USDA in meeting rangeland research program goals is repealed along with the requirement for a Rangeland Research Advisory Board (see subtitle C).

## Subtitle B

# Modification and Extension of Activities Under the 1990 Act

This subtitle provides funds or authorization for appropriations for fiscal years 1996-1997 (and for other years in a few cases) for a number of activities included in the Food, Agriculture, Conservation, and Trade Act of 1990 (1990 Act). Topics covered by these provisions are wide ranging, and include agricultural research, weather, water quality, technology for farmers with disabilities, extension programs, information systems, and others

### Water Quality Research, Education, and Coordination

The purpose of this section is to ensure that the USDA develops, implements, and sustains a coordinated, integrated, and comprehensive intra-agency program to protect waters from contamination from agricultural chemical and production practices. Authorization of appropriations is extended through fiscal year 1997.

### National Genetics Resources Program

The 1996 Act extends the authorization for appropriations for such sums as may be necessary for the National Genetics Resources Program and allows the Secretary to make genetic material available to other countries. The National Genetics Resources Program, established under the 1990 Act, is designed to maintain and enhance a program for the collection, preservation, and dissemination of genetic material of importance to American food and agriculture production. The program, administered by the Agricultural Research Service, provides for the collection, classification, preservation, and dissemination of important genetic material; conducts research on the genetic materials collected; coordinates the activities of the program with other, similar domestic activities; makes available upon request the genetic material that the program collects (without charge and without regard to regard to the country from which a request might be

made, unless other wise prohibited by law); and expands the types of genetic resources included in the program to develop a comprehensive genetic resource program.

### National Agricultural Weather Information System

The National Agricultural Weather Information System is designed to meet weather and climatic information needs of agricultural producers by providing weather information. Its funding authority, \$5.0 million annually, is extended through fiscal year 1997.

### Livestock Product Safety and Inspection Program

This special grants program is intended to promote research to improve the efficiency and effectiveness of safety and inspection systems for livestock products. The authorization of appropriations, on a matching basis, is extended through fiscal year 1997.

### Plant Genome Mapping Program

This program authorizes the Secretary to conduct a competitive research grants program to support basic and applied research and technology development on plant genome structure and function. The authorization is extended through fiscal year 1997.

### Certain Specialized Research Programs

The authorization of appropriations for three (of eight authorized under FACTA of 1990) specialized research programs: mesquite research, prickly pear research, and deer tick ecology and related research are extended through fiscal year 1997.

## **Agricultural Telecommunications Program**

This program encourages the development and utilization of an agricultural communications network to facilitate and strengthen agricultural extension, education, and marketing. Its authorization of appropriations for \$12 million annually is extended through fiscal year 1997.

## **National Centers for Agricultural Product Quality Research**

The purpose of the national centers is expanded to include enhancing agricultural competitiveness through product quality research and technology implementation. Regional centers are intended to conduct a broad spectrum of research, development, and education programs to enhance the competitiveness, quality, safety, and wholesomeness of agricultural products. The authorization of appropriations is extended through fiscal year 1997.

## **Red Meat Safety Research Center**

The 1996 Act repeals the provision authorizing a turkey research center (never funded) and in its place authorizes, on a competitive basis, a research facility to carry out research related to red meat safety, including developing strategies to reduce microbiological contamination of carcass surfaces and developing model hazard analysis and critical control point plans (HAACP). The legislation specifies a facility located close to a livestock slaughter and processing facility.

## **Indian Reservation Extension Agent Program**

The 1996 Act authorizes the Secretary to implement a reduced re-application process for the continuing

operation of the program to reduce the regulatory burdens on participating university and tribal entities. This program establishes extension education programs on Indian reservations and tribal jurisdictions.

## **Assistive Technology Programs for Farmers with Disabilities**

The 1996 Act extends the authorization of appropriations (through fiscal year 1997) for this program, which authorizes demonstration grants for on-the-farm agricultural education and assistance for individuals with disabilities who are engaged in farming and farm-related occupations and their families.

## **National Rural Information Center Clearinghouse**

The authorization for appropriations of the National Rural Information Clearinghouse, which provides and distributes information and data on rural assistance programs is extended through fiscal year 1997.

## **Global Climate Change**

The authorization for appropriations for this program is extended through fiscal year 1997. The purpose of the global change research program is to coordinate policy analysis, long-range planning, research and response strategies relating to climate change issues; provide liaison to other Federal agencies; inform the Department of scientific developments and policy issues relating to the effects of climate change on agriculture and forestry; recommend to the Secretary alternative courses of action which respond to scientific developments and policy issues; and ensure the recognition of the potential for climate change is fully integrated into the research, planning and decision-making processes of the Department.

## Subtitle C

# Repeal of Certain Activities and Authorities

The 1996 Act repeals the authority for the Joint Council of Food and Agricultural Sciences, the Agricultural Science and Technology Review Board, and the Animal Health Sciences Research Advisory Board. Other authorities and provisions repealed under the new legislation include:

- **Resident Instruction Program at 1890 Land-Grant Colleges.** This program would have provided grants for teaching program at 1890 institutions—but it was never funded. Authority is repealed.
- **Grants to States for International Trade Development Centers.** Repealed.
- **Rangeland Research.** The requirement for the Secretary to submit a report to Congress and the President outlining the progress of the Department in meeting rangeland research program goals is repealed along with the requirement for a Rangeland Research Advisory Board (see subtitle A).
- **Composting Research and Extension Program.** This program required education about appropriate methods of composting agricultural wastes and potential uses for such compost. Authority is repealed.
- **Education Program Regarding Handling of Agricultural Chemicals and Agricultural Chemical Containers.** Authority is repealed for this program that provided for cataloging Federal, State and local laws and regulations governing the handling of unused or unwanted agricultural chemical and agricultural chemical containers.
- **Program Administration Regarding Sustainable Agriculture Research and Education, Best Utilization of Biological Applications, Research and Extension Projects.** Amendments were made to repeal reporting requirements and abolish the National Sustainable Agriculture Advisory Council.
- **Research Regarding Production, Preparation, Processing, Handling, and the Storage of Agricultural Products.** This research program was designed to measure microbiological and chemical agents in or affecting agricultural products. Program authority is repealed.
- **Plant and Animal Pest and Disease Control Program.** Repealed.
- **Certain Specialized Research Programs.** The 1996 Act repeals authority for several research programs—lean animal content research, immunoassay research, niche market research, and new commercial products from natural plant materials research.
- **Commission on Agricultural Research Facilities.** Repealed.
- **Special Grant to Study Constraints on Agricultural Trade.** The authority had provided for special grants to land-grant colleges and universities to conduct studies evaluating the trade impacts of technical barriers, quality factors, and end-use characteristics—but these grants were never funded. Authority is repealed.
- **Pilot Program to Coordinate Food and Nutrition Education Research.** This program, repealed under the new legislation, created the authority to make grants for enhancing interagency and interagency coordination in the design and delivery of food and nutrition programs and to develop more efficient methods and improved organization to inform the public about food and nutrition programs.
- **Demonstration Areas for Rural Economic Development.** This grant program, repealed under the 1996 Act, was designed to establish a program of competitive grants to rural areas to serve as a demonstration area for rural economic development and as models of such development for other areas.



- **Technical Advisory Committee Regarding Global Climate Change.** Repealed.
- **Cotton Crop Reports.** The provision that required cotton crop production reports be issued at 3:00 p.m. is repealed.
- **Rural Economic and Business Development Programs.** Specific rural economic and business development and rural development extension programs are repealed.
- **Human Nutrition Research.** The 1996 Act repeals a requirement for an annual report of human nutrition research activities.
- **Grants to Upgrade 1890 Land-Grant Colleges Extension Facilities.** The new legislation repeals the obsolete authority for this program.
- **Indian Subsistence Farming Demonstration Grant Program.** Repealed.

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## Subtitle D

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# Miscellaneous Provisions

This subtitle provides authorization for appropriations for fiscal years 1996-1997 and/or makes other modifications for a number of existing programs and activities. Topics covered by these provisions include agricultural research, remote sensing information systems (5-year authorization), extension and education activities, and others. A 10-year strategic plan for agricultural research facility development and modernization is to be developed by a task force.

### Critical Agricultural Materials Research

The 1996 Act extends authorization for appropriations through fiscal year 1997 and repeals annual reporting requirements.

### 1994 Institutions

The Secretary is required to develop and implement a formal memorandum of agreement with the 1994 Institutions by January 6, 1997, to ensure that tribally controlled colleges and Native American communities equitably participate in USDA's employment, programs, services, and resources.

### Smith-Lever Funding for 1890 Land—Grant Colleges

The 1996 Act makes the 1890 Institutions (including Tuskegee University) eligible to participate in new or increased extension programs carried out under Section 3(d) of the Smith–Lever Act.

### Agricultural Research Facilities

The Research Facilities Act is amended to add several new criteria and procedures for reviewing proposals for grants to college, university, and nonprofit institu-

tion agricultural research facilities. The Secretary is required to establish a 15-member Strategic Planning Task Force to review all currently operating agricultural research facilities constructed in whole or in part with Federal funds and all planned facilities to ensure that a comprehensive research capacity is maintained. The task force will prepare for the Secretary and the congressional agriculture committees a 10-year strategic plan, reflecting both national and regional perspectives for development, modernization, construction, consolidation and closure of Federal agricultural research facilities and agricultural research facilities proposed to be constructed with Federal funds. The report is due 2 years after the formation of the task force.

The Secretary shall select members of the Strategic Planning Task Force from recommendations of the Advisory Board established by Section 1408 of the NARETPA (7 U.S.C. 3123). This Board may recommend individuals with expertise in facilities development, modernization, construction, consolidation and closure.

### National Competitive Research Initiative

The authorization of appropriations is extended through fiscal year 1997 and the proportion of funds allocated for mission-linked research is increased to 40 percent (from 20 percent).

### Rural Development Research and Education

The Rural Development Act of 1977 (7 U.S.C. 2662(a)) is amended to add goals for extension programs in the area of coordinated and integrated rural community initiatives using leadership development, entrepreneurship, and other steps to increase jobs, income, and quality of life in rural communities.

## **Dairy Goat Research Program**

Authority for appropriations is extended through 1997.

## **Competitive Grants for Research To Eradicate and Control Brown Citrus Aphid and Citrus Tristeza Virus**

The 1996 legislation authorizes a competitive research grant program on the brown citrus aphid and the citrus tristeza virus focusing on developing methods to eradicate these pests from citrus crops grown in the United States and developing citrus varieties not injured by the brown citrus aphid and the citrus tristeza virus.

## **Aquaculture Research Centers**

The 1996 Act renames the Fish Farming Experimental Laboratory (in Stuttgart and Kelso, Arkansas) as the Stuttgart National Aquaculture Research Center and transfers the laboratory to the Department of Agriculture (from the Department of Interior). The Southeastern Fish Culture Laboratory in Marion, Alabama, is renamed the Claude Harris National Aquacultural Research Center and may be transferred to the Department of Agriculture, in whole or in part, subject to the consent of the Secretary.

## **National Arboretum**

The Secretary is authorized to solicit services to operate concessions for food, drink, and nursery sales, grant concessions to nonprofit scientific or education organizations, and to charge fees for certain uses, and to accept voluntary services for the benefit of the National Arboretum.

## **Remote Sensing**

The Secretary of Agriculture and Administrator of the National Aeronautics and Space Administration are given a 5-year authorization to jointly make available timely information—developed through remote sensing data—on crop conditions, soil conditions, projected food, and feed and fiber production.

## **Methyl Bromide—Sense of the Senate**

USDA is urged to continue to make methyl bromide alternative research and extension activities a high Departmental priority and to continue discussions with the Environmental Protection Agency, producer and processor organizations, environmental organizations, and State agencies on the risks and benefits of extending the 2001 methyl bromide phaseout deadline.

## **Subtitle E**

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# **Research Authority After FY 1977**

The 1996 Act authorizes annual appropriations for fiscal year 1998 through fiscal year 2002 of such sums as are necessary to carry out the agricultural research, extension, and education activities and initiatives of

USDA—but only if they are specifically provided for in an appropriation act for the fiscal year. This subtitle anticipates passage of new legislation prior to the end of fiscal year 1997.