

R&D in the U.S. Department of Agriculture

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HIGHLIGHTS

- Funding for the National Research Initiative (NRI) would increase by \$70 million to \$250 million (see Table II-13).
- USDA would establish a State Agricultural Experiment Stations Competitive Grants Program with an initial \$75 million.
- Hatch Act Formula Funds would fall by \$90 million.
- Research in the Food and Agriculture Defense Initiative (the former Homeland Security Program) would increase by \$44 million.
- USDA would establish a Higher Education Agrosecurity Program with \$5 million.

OVERVIEW

The U.S. Department of Agriculture (USDA) serves as the principal government agency for agricultural research and development. Over the years, it has developed productive partnerships with higher education institutions to produce some of the best agricultural research in the world. Funding to universities and other educational institutions flows through the Cooperative State Research, Extension, and Education Service (CSREES). USDA is also home to the Agricultural Research Service (ARS). ARS is the principal research agency for USDA. Other research agencies within USDA include the Economic Research Service (ERS), the National Agricultural Statistics Services (NASS), and the Forest Service (FS) which funds forest and rangeland research.

USDA groups its programs under five strategic goals: (1) enhance economic opportunities for agricultural products; (2) support increased economic opportunities and improved quality of life in rural America; (3) enhance protection and safety of the nation's agriculture and food supply; (4) improve the nation's nutrition and health; and (5) protect and enhance the nation's natural resource base environment. All R&D programs proposed in this budget fall under one of these five categories.

INITIATIVES

National Research Initiative (NRI): The NRI is USDA's principal competitive grants program that provides funding for both basic and applied research. It is administered by CSREES. The NRI also aims to help develop the next generation of agricultural scientists. The FY 2006 budget proposes an increase of \$70 million, which would raise the funding level to \$250 million (see Table II-13 for USDA details). The increase would target initiatives within the NRI including agricultural genomics, nanotechnology, food safety, water quality, pest-related programs, and human nutrition and obesity. The Administration's budget also proposes to eliminate the current limitations on indirect costs. This means that competitive grants awarded through the NRI would receive full indirect costs like other federal competitive research grant programs.

Regional, State, and Local Grants Program: This new program is proposed at a level of \$75 million and would be housed in CSREES. This is not, however, new money, but rather money that has been shifted from other programs, including formula-based research programs such as the Hatch Act which funds the nation's agricultural experiment stations. The establishment of this new competitive grants program represents a major departure from the way that the nation's agricultural experiment stations have been funded and, in fact, represents the first phase of a two-year plan to redirect funding, thereby eliminating Hatch formula funds. This new competitive grants program would support research conducted by state agricultural experiment stations and would target regional, state, and local issues. This could be an attempt to redirect congressional zeal for earmarking funds that target their regional, state, and local needs, needs that are often overlooked in a competitive grants program such as the NRI. If Congress were to accept such a measure and use this new program for targeted needs, it is possible that real budget reduction could take place.

Food and Agriculture Defense Initiative (former Homeland Security Program): Keeping national security as a priority, USDA proposes an increase of \$44 million for research-related efforts of the Food and Agriculture Defense Initiative in ARS and CSREES. Research funding in ARS would increase by \$23 million to \$46 million. An additional increase of \$21 million in CSREES for a total of \$30 million would enhance the regional diagnostic network established in FY 2002 to protect the food and agricultural system from high-risk biological pathogens. 13 animal diagnostic labs and six plant diagnostic labs were established at that time, and the proposed increase would enable these labs to augment their ability to identify exotic and domestic pests and pathogens.

Higher Education Agrosecurity Program: The FY 2006 budget proposes \$5 million to establish a new Higher Education Agrosecurity Program in CSREES. This initiative aims to supply educational and professional development for personnel involved in protecting the nation's food and agriculture supply. This initiative interfaces with the Food and Agriculture Defense Initiative and would provide the needed training that personnel need at the various diagnostic labs.

USDA AGENCIES

Agricultural Research Service (ARS): As stated above, ARS is the in-house research arm of USDA and along with CSREES serves as a major producer of the nation's agricultural research. ARS has over 100 research labs in the United States and around the world.

An increase of \$69 million is proposed for research activities, which would bring funding to a level of \$996 million. The Administration has once again zeroed out all earmarked projects (either a proposed savings of \$175 million or an amount that can be shifted to funding increases for other programs) and proposed decreased funding levels for Buildings and Facilities from \$186 million to \$65 million (see Table II-13). ARS research areas include: (1) product quality/value added (such as development of alternative energy and expansion of domestic and global markets); (2) livestock production (such as animal genomics); (3) crop production (such as crop genomics and genetic and genomic databases and bioinformatics tools); (4) food safety (such as reduction of hazards caused by pathogenic bacteria, viruses, parasites, etc.); (5) livestock

protection (such as bovine spongiform encephalopathy); (6) crop protection (such as reducing impact of plant diseases and pest management); (7) human nutrition (such as energy and nutrient content of food); and (8) environmental stewardship (such as technology development to aid in protection of soil, water, and air resources).

Cooperative State Research, Extension, and Education Service (CSREES): Traditionally, CSREES has partnered with higher education to fund and support agricultural research. Funds are disbursed through various formula programs such as the Hatch Act which funds the nation's agricultural experiment stations based at land-grant colleges and universities and competitive grants programs such as the National Research Initiative (NRI).

Funding for CSREES activities is proposed at a level of just over \$1 billion which is \$143 million, or 12.2 percent, less than was appropriated in FY 2005. USDA officials are quick to point out, however, that the President's FY 2006 proposal for USDA research is 1.2 percent higher than the FY 2005 proposal. However, funding falls short when compared to actual dollars appropriated by the Congress for FY 2005.

The most remarkable item in this budget proposal is the proposed cut for Hatch Act funding, which, as mentioned above, funds the nation's agricultural experiment stations. The proposed cut would immediately eliminate \$89 million from a FY 2005 level of \$179 million. This cut represents the first phase of a two-year plan to eliminate Hatch funding altogether. The Administration proposes to replace Hatch funding by (1) augmenting funding for the NRI to \$250 million from an FY 2005 level of \$180 million and (2) establishing a new Regional, State, and Local Grants Program at a level of \$75 million.

Needless to say, cutting Hatch formula funds in half is a dramatic departure from a long-standing funding practice that will result in significant changes in the maintenance of the infrastructure of faculty and infrastructure for research at land-grant universities and their agricultural experiment stations. Land-grant universities would be profoundly affected by this change, a change that could result in the elimination of faculty positions and established, on-going research projects that target state and local needs.

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Once again, the Administration removes from its CSREES budget proposal all funding for special grants, also known as earmarked programs. Doing this allows the Administration to “redistribute” approximately \$181 million, the amount that Congress appropriated in FY 2005 for special research projects located in Members’ home states and districts. The practice of awarding special grants has as many supporters as detractors. Supporters argue that some research needs are so localized that the grant proposals cannot survive a review process that favors national needs. Detractors claim that if the research is good then even local research needs can successfully navigate the competitive review process. Clearly, Congress will reinstate its funding priorities in the USDA budget, though at what level is not yet known. However, when this funding is “restored” then the bottom line will once again have to be adjusted upward if, in fact, the Congress honors the President’s proposal.

Economic Research Service (ERS): ERS provides economic, social science information, and analysis on agriculture, food, the environment, and rural development. ERS would receive an increase of \$7 million to \$81 million if the Administration’s budget proposal is adopted. (For more on ERS, please see Chapter 21.)

National Agricultural Statistics Services (NASS): NASS provides unbiased data to agricultural markets, rural communities, and researchers. The FY 2006 budget proposes an increase of \$17 million to a level of \$145 million. (For more on NASS, see Chapter 21.)

Forest Service (FS): One of the world’s largest forest research organizations, the Administration proposes a funding level of \$285 million for forest and rangeland research. This represents a \$9 million increase to support research that would enhance the management of the National Forest System.