

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

*Elizabeth Allred, Eddie Gouge, and Ian Maw,
National Association of State Universities
and Land-Grant Colleges*

HIGHLIGHTS

- \$277 million proposed funding for the Food and Agriculture Defense Initiative.
- \$257 million proposed funding for the National Research Initiative.

OVERVIEW

The U.S. Department of Agriculture (USDA) serves as the principal government agency for agricultural research and development. For FY 2009, USDA has aligned its programs and funding within the context of the six goals of its strategic framework: (1) enhance international competitiveness of American agriculture; (2) enhance the competitiveness and sustainability of rural and farm economies; (3) support increased economic opportunities and improved quality of life in rural America; (4) enhance protection and safety of the nation's agriculture and food supply; (5) improve the nation's nutrition and health; and (6) protect and enhance the nation's natural resource base and environment.

Of the \$95 billion proposed in the FY 2009 budget request, 76 percent, or \$72 billion, of the requested funding would support mandatory programs such as the farm commodity program, nutrition programs, etc. The remaining 24 percent, or \$23 billion, would fund the discretionary programs found within USDA, including research. These research dollars would support the nation's federally funded agricultural research activities housed in the Agricultural Research Service (ARS); the Cooperative State Research, Education, and Extension Service (CSREES); the Economic Research Service (ERS); the National

Agricultural Statistics Service (NASS); and the Forest Service (FS). (See Table II-13 for details of R&D in the USDA budget.)

USDA's research agencies seek to advance the department's strategic goals through their various activities by conducting research in areas such as food safety, bioenergy, and emerging diseases in crops and livestock. To provide a broader understanding of how USDA's research activities fit within its strategic goals, a brief review follows placing funding and activities within the strategic context.

Strategic Goal 1: Enhance International Competitiveness of American Agriculture. Total funding within this category has been proposed at a level of just over \$5 billion including a request of \$19 million for research, education, and economics activities. Research activities would support efforts to increase U.S. competitiveness in export opportunities and trade capacity.

Strategic Goal 2: Enhance the Competitiveness and Sustainability of Rural and Farm Economies. Total funding within this category has been proposed at a level of more than \$32 billion including a request of \$877 million for research, education, and economics activities. Research activities would support efforts to conduct research on renewable energy resources.

Strategic Goal 3: Support Increased Economic Opportunities and Improved Quality of Life in Rural America. Total funding within this category has been proposed at a level of just over \$15 billion including a request of \$212 million for research, education, and economics. Research activities would support efforts to expand access to quality housing, modern utilities, and needed community facilities.

Strategic Goal 4: Enhance Protection and Safety of the Nation's Agricultural and Food Supply. Total funding within this category has been proposed at a level of just over \$2.8 billion including a request of \$577 million for research, education, and economics. Research activities would support efforts to enhance food safety and reduce the occurrence of foodborne illnesses and agricultural pest and disease outbreaks.

Strategic Goal 5: Improve the Nation's Nutrition and Health. Total funding within this category has been proposed at a level of just over \$62.5 billion including a request of \$241 million for research, education,

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and economics. Research activities would support efforts to improve access to nutritious food and promote healthier lifestyles.

Strategic Goal 6: Protect and Enhance the Nation's Natural Resource Base and Environment. Total funding within this category has been proposed at a level of just over \$10.6 billion including a request of \$374 million for research, education, and economics. Research activities would support efforts to protect the nation's forest system

INITIATIVES

Food and Agriculture Defense Initiative. The Administration requests \$277 million to continue to protect the nation's food supply and agriculture under the Homeland Security Presidential Directive (HSPD) 9, Defense of U.S. Agriculture and Food. Of the \$277 million requested, \$39 million would support research activities in biosecurity.

National Research Initiative (NRI). The Administration continues to support a substantial increase in the NRI which is housed CSREES. The NRI is the nation's premier competitive grants program dedicated specifically to fundamental and applied sciences in agriculture. In the FY 2009 budget proposal, the Administration proposes a funding level of \$257 million, an increase of \$66 million over the FY 2008 estimate of \$191 million (see Table II-13). Funding increases would reflect the inclusion in the NRI of integrated activities in water quality, food safety, and pest management (\$42 million). These research efforts are currently operated outside the structure of the NRI. There would also be an increase of \$19 million to support USDA's bioenergy and biobased fuels research initiative.

USDA AGENCIES

Agricultural Research Service (ARS). 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 throughout the United States and the world. The FY 2009 budget requests funding at a level of almost \$1.1 billion, a decrease from the FY 2008 estimate of \$1.2 billion. The Administration does not include in its budget request the congressional earmarks from FY 2008 that totaled \$41 million. Research categories and proposed funding levels include: (1) new products, product quality, and value added (\$98 million); (2)

livestock production (\$70 million); (3) crop production (\$191 million); (4) food safety (\$106 million); (5) livestock protection (\$69 million); (6) human nutrition (\$79 million); and (7) environmental stewardship (\$200 million).

Cooperative State, Research, Education, and Extension Service (CSREES). Partnering with the nation's land-grant universities, USDA funds research that is conducted at both the basic and applied levels. Most research has been conducted through the agricultural experiment stations (AES) with funding provided through the formula funds established in the Hatch Act. The Administration proposes an amount of \$139 million to fund the Hatch Act (see Table II-13) and proposes that \$98 million—or more than 70 percent—be redirected to fund new competitive multi-state research projects. Redirecting formula funds into a competitive grants program would be a significant departure in the way that formula funds have been administered since the enactment of the Hatch Act in 1887, legislation that created the agricultural experiment station system thus allowing the nation's land-grant colleges and universities to develop highly effective and productive agricultural research programs.

The Administration also proposes to modify the McIntire-Stennis Cooperative Forestry program by redirecting funds to create a multi-state research program supported by approximately 67 percent of the total funding. All McIntire-Stennis multi-state funds would be distributed through competitively awarded grants.

As in previous years, the Administration removes from its budget proposal all funding for special grants, also known as earmarked programs. By removing the \$144 million appropriated in FY 2008, the Administration insists on supporting research funding awarded on a competitive, peer-reviewed basis.

Economic Research Service (ERS). ERS provides economic, social science information, and analysis on agriculture, food, the environment, and rural development. USDA uses this information to inform policy and program decisions made within its various agencies. The FY 2009 budget proposal request an additional \$5 million for the ERS which would bring its funding level to \$82 million, up from the 2008 estimate of \$77 million (see Table II-13). Increases would include an additional \$3.5 million to strengthen the market analysis and outlook program to

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better understand global agricultural markets. An additional \$0.4 million is also proposed to strengthen the agency's capacity to analyze the regional impacts of bioenergy production and evaluate issues related to transportation networks, feedstock storage, marketing channels, and shifts in commodity production.

National Agricultural Statistics Service (NASS). NASS provides timely, unbiased data to agricultural markets, rural communities, and researchers. The FY 2009 budget requests \$153 million, a decrease from the 2008 estimate of \$162 million. The Administration proposes \$1.8 million to establish a data series on key elements of bioenergy production and utilization. Areas that need to be researched include data on the production and utilization of biomass materials, stocks and prices of distillers' grains, and annual maps of county-level crop production with overlays of major transportation corridors, as well as current and proposed ethanol plants. The data would provide needed information for future bioenergy program development. (For more on NASS, see Chapter 20.)

Forest Service (FS). The Forest Service (FS) is the world's largest forest research organization. Research activities seek to address the changing needs of managing the National Forest System. The President's budget proposal for FY 2009 seeks \$263 million to fund forest and rangeland research within the Forest Service. This represents a decrease of \$23 million from the 2008 level of \$286 million. (Total Forest Service R&D in Table II-13 also includes some R&D funding in other FS accounts. For more on the Forest Service budget, please see Chapter 17.)

