

# CRS Report for Congress

## Agricultural Research, Extension, and Education: Farm Bill Issues

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## Summary

The 110<sup>th</sup> Congress is considering an omnibus farm bill that will authorize and direct the implementation of the U.S. Department of Agriculture's (USDA's) major programs across the spectrum of its mission areas for the next several years. The Department's research, extension, and economics mission area comprises four agencies that administer intramural and extramural programs supporting agricultural research and development (R&D).

Various proposals for changing the way in which USDA supports research, extension, and education have been discussed (and some implemented) since the early 1990s (see CRS Report RL33327, *Agricultural Research, Education, and Extension: Issues and Background*, by Jean M. Rawson). The House- and Senate-passed versions of the omnibus 2008 farm bill contain provisions reflecting some of the more comprehensive proposals, and would represent significant change in USDA's administration of agricultural R&D, if enacted.

Both the House and Senate versions of the research title would classify all current research, extension, and education programs into two groups — capacity programs (infrastructure programs in Senate bill language) and competitive programs — based upon the way in which their funding is distributed to recipients. The House bill would create an umbrella coordinating entity known as the National Agricultural Research Program Office (NARPO) that would coordinate and plan both capacity and competitive programs, as well as USDA-administered intramural (Agricultural Research Service (ARS)) and extramural programs (Cooperative State Research, Education, and Extension Service (CSREES)). It would establish a National Institute of Food and Agriculture (NIFA) within CSREES to administer all the competitive grant programs. The House bill also would provide a substantial amount of mandatory research funding, totaling \$865 million over the five-year life of the farm bill.

The Senate-passed bill calls for terminating CSREES as an agency and transferring all of its programs, both infrastructure (capacity) and competitive programs, to a National Institute of Food and Agriculture. The Undersecretary for Research, Extension, and Economics would be tasked with coordinating the research activities of ARS and NIFA. The Senate bill would provide \$160 million in mandatory funding over the life of the farm bill, and would authorize some programs currently supported with mandatory funds to receive appropriated funds instead. Other new provisions in both the House- and Senate-passed bills include major initiatives to provide capacity-building support to Hispanic-serving agricultural colleges and to make them eligible to receive funding through a wider range of grant programs.

This report will be updated as 2008 farm bill legislative activity proceeds.

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# Agricultural Research, Extension, and Education: Farm Bill Issues

## Background

The U.S. Department of Agriculture (USDA) is responsible for conducting agricultural research at the federal level, and for providing partial support for cooperative research, extension, and post-secondary agricultural education programs in the states. This mission area of USDA is called Research, Extension, and Economics (REE). In addition to research in the biological sciences, the mission also includes substantial economic data collection and analysis.<sup>1</sup>

The state partners are the colleges of agriculture at land grant universities in 50 states and eight U.S. territories, with their affiliated state agricultural experiment stations, schools of forestry and veterinary medicine, and cooperative extension. There also are 18 historically black land grant colleges of agriculture (the 1890 institutions) and 31 Native American colleges that gained land grant status in 1994 (referred to as the tribal colleges). Small grant programs support agricultural education at Hispanic-serving institutions, and at Alaskan and Hawaiian native-serving institutions.

**Key Issues.** USDA differs from other federal research agencies in allocating the majority of its annual research appropriation directly to in-house research (ARS, ERS, and NASS). Most federal science agencies primarily fund extramural research through a competitive, peer-reviewed grant process. The National Academy of Sciences (NAS) has recommended for more than a decade that at least 35% of total USDA research money be distributed competitively. When the Academy first made its recommendation in 1989, it determined that less than 6% of USDA's research funding was competitively awarded. In FY2006 it was approximately 14%, according to CRS calculations.

The primary and longest-standing mechanisms for distributing annual federal appropriations to the colleges of agriculture at the state land grant universities are contained in the Hatch Act of 1887 (for cooperative research) and Smith-Lever Act of 1914 (for extension activities). Formulas set forth in each of these acts determine how annual federal appropriations are divided among states. The majority of funding

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<sup>1</sup> Under the REE mission, the USDA is responsible for conducting agricultural research at the federal level, and for providing partial support for cooperative research, extension, and post-secondary agricultural education programs in the states. The USDA's intramural activities are carried out by the Agricultural Research Service (ARS), Economic Research Service (ERS), and National Agricultural Statistics Service (NASS). The federally funded extramural activities are managed by the Cooperative State Research, Education, and Extension Service (CSREES).

for state-level programs, however, comes from state appropriations, competitive grants from USDA and other federal agencies, and private industry. States are required to match Hatch and Smith-Lever formula funds; most states appropriate three to four times the federal allotment. Nonetheless, despite the fact that federal formula funds represent only a small percentage of total funding at the state level, they traditionally have been viewed by state research and extension directors as a very reliable source of support for their core programs.

Congress has set the policies and authorized the funding for USDA's research, education, and extension programs as part of omnibus farm bills since 1977. Permanent authority for most of the programs resides in older laws, but the authorization for appropriations for them expires at the end of FY2007 unless a new farm bill is enacted.

To address the challenges posed by the perceived need to increase competitive grants in agriculture, the major proposals for the research title propose significant changes in how ARS and CSREES are structured and administered.

## Proposals for Change

**Administration's Proposal.** In the comprehensive farm bill proposal that USDA released in February 2007, the Administration proposed to rename the Research, Education, and Extension mission area the Office of Science, and to merge ARS and CSREES into a single agency conducting both intramural and extramural programs under the leadership of a Chief Scientist. The proposal called for the current formula-funded authorities to be retained. ERS and NASS would be the other two agencies also under the Office of Science. The Administration maintained that an integration of budgets and programs would provide more efficient and effective program implementation and resource allocation. In its call for a unified budget and a single scientific agency, this proposal mirrored some of the key aspects of the land grant system's CREATE-21 proposal (see below).<sup>2</sup>

**2002 Farm Bill Task Force Proposal.** In Section 7404 of the 2002 farm bill (P.L. 107-171), Congress commissioned a task force "to conduct a review and evaluation of the merits of establishing one or more National Institutes focused on disciplines important to the progress of food and agricultural sciences," among other things. The task force recommendations, released in July 2004, called for the formation of a National Institute for Food and Agriculture (NIFA) within USDA "to supplement and enhance, not replace, the existing research programs." The task force conceived of the NIFA as a separate entity solely for awarding competitive peer-reviewed grants, and called for an annual budget for the institute to build to \$1 billion over a five-year period.<sup>3</sup>

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<sup>2</sup> The full Administration proposal is available online at [<http://www.usda.gov/documents/07finalfbp.pdf>].

<sup>3</sup> *National Institute for Food and Agriculture: A Proposal*, report of the Research, Education, and Economics Task Force of USDA, July 2004. The report is available online at [<http://www.ars.usda.gov/Research/Research.htm>].

H.R. 2118 (C. Peterson)/S. 971 (Bond) reflect the task force recommendations. The companion bills would establish the NIFA and commission it to award an estimated 1,000 competitive grants annually in research areas to be determined by a director appointed by the President, in consultation with a Council of Advisors (to include stakeholders as well as scientists). The bills would provide mandatory funds for the NIFA starting at \$245 million in FY2008 and increasing to \$966 million by FY2012.

**Land Grant Organization Proposal.** Recommendations put forth by the National Association of State Universities and Land Grant Colleges (NASULGC) after a nationwide deliberative process within the land grant system are reflected in H.R. 2398 (Barrow)/S. 1094 (Stabenow). The key provisions would (1) put all of USDA's intramural and extramural research, education, and extension agencies (including the research arm of the Forest Service) under one administrative body, working with a unified budget; (2) provide \$200 million annually in mandatory funds and substantial annual increases in appropriated funds (to 171.5% of the current level of \$2.67 billion) in FY2012; and (3) provide opportunities for minority and smaller schools, both land grant and non-land grant, to expand their capacity for agricultural research, education, and extension. The NASULGC proposal, called CREATE-21, was widely but not unanimously endorsed by the colleges of agriculture at the land grant universities.<sup>4</sup>

## Farm Bill Action

On July 27, 2007, the House passed H.R. 2419, the Farm, Nutrition, and Bioenergy Act of 2007, which includes Title VII, the research title. The Senate Amendment to H.R. 2419, which passed on December 14, 2007, also includes research as Title VII. Both the House and Senate bills draw heavily on the recommendations of USDA and NASULGC.<sup>5</sup>

**House-Passed bill.** The House version would create, within the Office of the Undersecretary for Research, Education, and Economics, an overall coordinating organization known as the National Agricultural Research Program Office (NARPO) with six specialized directors.<sup>6</sup> NARPO's six subject-area directors would work with the existing National Agricultural Research, Extension, Education, and Economics Advisory Board to coordinate and plan both the capacity and competitive programs of the REE agencies. The directors of NARPO would become the primary program

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<sup>4</sup> Both the NASULGC document and the legislative proposals are under the title "Creating Research, Extension, and Teaching Excellence for the 21<sup>st</sup> Century" or "CREATE-21"; see [<http://www.create-21.org/>].

<sup>5</sup> CRS Report RL34228, *Comparison of the House and Senate 2007 Farm Bills*, coordinated by Renee Johnson, presents a side-by-side tabular comparison of current law and the House and Senate bills, including the research titles.

<sup>6</sup> NARPO would be composed of individual institutes for (1) renewable energy, natural resources, and environment; (2) food safety, nutrition, and health; (3) plant health and production; (4) animal health and production and animal products; (5) agriculture systems and technology; and (6) agriculture economics and rural communities.

leaders, incorporating the duties of the currently separate ARS and CSREES national program staffs.

Additionally, the House bill would establish a National Institute of Food and Agriculture (NIFA) within CSREES that would oversee extramural competitive research grants only. NIFA would merge USDA's two major competitive grant programs — the National Research Initiative (NRI) and the Initiative for Future Agriculture and Food Systems (IFAFS).<sup>7</sup> The NRI portion of the combined program would focus on fundamental, basic research, and receive 60% of the available funding. The IFAFS portion would focus on applied, integrated research, education, and extension projects, and receive 40% of the available funding. The title would reauthorize appropriations for the NRI at \$500 million annually through FY2012, and provide for the transfer of IFAFS's mandatory funding.<sup>8</sup>

The House bill, in support of a more centralized administration of the agencies, calls for the President to submit a unified annual budget reflecting the total amount requested for each of two categories of mission area programs. The first category, called capacity-building programs, would include all of the formula-funded programs, support for research at the tribal colleges, the 1890 colleges, the Hispanic-serving institutions, and other selected programs. The second budget category, called competitive programs (administered by the new NIFA), would reflect the total amount requested for all programs that distribute funds through peer-reviewed, competitive processes.

The House bill provides a substantial amount of mandatory research funding, totaling \$865 million over the five-year life of the farm bill. The existing Organic Research and Extension Initiative would receive \$25 million in total mandatory funds for FY2008-FY2012 and \$25 million in annual appropriations authority for FY2009-FY2012. A new Specialty Crop Research Initiative would receive a total of \$215 million in mandatory funds in addition to annual appropriations authority of \$100 million for FY2008-FY2012. The effort to improve the safety of fresh cut produce would be provided an additional total of \$25 million in mandatory funds to supplement the annual appropriation. Also, the House bill preserves mandatory funding of \$200 million for IFAFS for FY2010-FY2012. Discretionary programs are maintained largely as in the previous farm bill and most are authorized to receive appropriations of such sums as necessary.

**Senate-Passed bill.** The Senate-passed bill would terminate CSREES and recast the agency as the National Institute of Food and Agriculture. The institute would plan, coordinate, and manage all existing extramural USDA research, education, and extension funds (competitive grants, capacity-building grants, and formula funds). The NIFA director would report directly to the Secretary of Agriculture (not through the Undersecretary). The bill explicitly directs the

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<sup>7</sup> IFAFS was authorized in a free-standing agricultural research law in 1998 (P.L. 105-185).

<sup>8</sup> The Deficit Reduction Act of 2007 (P.L. 109-171) cancelled the currently authorized annual \$200 million in mandatory funds for IFAFS in FY2007 through FY2009. Funding for the program would resume in FY2010 at \$200 million annually unless Congress changes it in the 2007 farm bill.

Undersecretary to coordinate research between ARS and NIFA, and to recommend funding for all the programs within USDA's research mission area.

The Senate bill provides \$160 million in mandatory research funding over the five-year life of the farm bill. This bill would reauthorize the Organic Research and Extension Initiative with \$16 million in annual mandatory funds for FY2008-FY2012. A new Specialty Crop Research Initiative would receive \$16 million in annual mandatory funds for FY2008-FY2012. Mandatory funds for the Initiative for Future Agricultural and Food Systems (IFAFS, which would be a program within NIFA) are eliminated and replaced with annual appropriations of such sums as necessary. As with the House bill, discretionary programs are maintained largely as in the previous farm bill and most are authorized to receive appropriations of such sums as necessary.

Other new provisions in the both the House and Senate bills include (1) a grant program to help non-land grant public colleges and universities improve their capacity for agricultural research, education, and outreach; (2) establishment of an endowment fund, similar to that established for the tribal colleges, to provide a continuing base of support for Hispanic-serving agricultural colleges; (3) establishment of institutional capacity-building and competitive grant programs for the Hispanic-serving colleges; and (4) a larger commitment to bioenergy and biobased products.

**Appendix A**, below, contains a comparison of current law and policy in the agricultural research, extension, and education mission area, with the provisions in the House- and Senate-passed versions of H.R. 2419.



## Appendix A. Comparison of the Research Titles of the House- and Senate-Passed Farm Bills (H.R. 2419)

CURRENT LAW/POLICY	HOUSE-PASSED BILL (H.R. 2419)	SENATE-PASSED AMENDMENT (H.R. 2419)
<b>1. Changes to Structure and Funding of USDA Intramural and Extramural Agricultural Research, Education, and Extension</b>		
<p>1. Current policy functionally categorizes Cooperative State Research, Education, and Extension Service (CSREES) programs for state-level agricultural research, education, or extension activities as either “formula funded” or “competitive.”</p> <p>2. The 1994 USDA reorganization act merged the Extension Service with the Cooperative State Research Service to establish CSREES. ARS was established in its current form in 1953. Both agencies are under the jurisdiction of the Undersecretary for Research, Extension, and Economics.</p> <p>3. The National Research Initiative (NRI) competitive grant program is an expansion, in the 1990 farm bill, of a program initially authorized in 1965. The NRI is funded through annual appropriations. The Initiative for Future Agriculture and Food Systems (IFAFS), also a competitive research grant program, was first authorized in the Agricultural Research, Extension, and Education Reform Act of 1998 (P.L. 105-185) and reauthorized in the 2002 farm bill (P.L. 107-171). IFAFS is a mandatory-funded program.</p>	<p>Formally categorizes each existing CSREES program as a “capacity program” or “competitive program,” and designates the current level of funding for each category as “critical base funding.” <i>[Section 7101]</i></p> <p>Establishes a National Agricultural Research Program Office (NARPO) under the Undersecretary, with six sub-offices organized by research focus. The provision integrates the administrative functions of ARS’s and CSREES’s respective National Program Leaders, but retains the separate agencies. <i>[Section 7104]</i></p> <p>Merges the existing NRI and IFAFS grant programs and groups them with all other competitive grant programs currently administered by CSREES to become the National Institute of Food and Agriculture (NIFA). <i>[Section 7105]</i></p>	<p>Formally categorizes each existing CSREES program as an “infrastructure program” (i.e., capacity program) or “competitive program,” as in the House provision. <i>[Section 7401]</i></p> <p>Directs the Undersecretary to coordinate the programs under the authority of the ARS and CSREES national program leaders, as well as the Director of the National Institute of Food and Agriculture. <i>[Section 7402]</i></p> <p>CSREES is terminated as an agency; all of its competitive and infrastructure programs are to be administered under the National Institute of Food and Agriculture. <i>[Section 7401]</i></p>

CURRENT LAW/POLICY	HOUSE-PASSED BILL (H.R. 2419)	SENATE-PASSED AMENDMENT (H.R. 2419)
4. Matching funds are not required for NRI and IFAFS grants; they may be required for certain applied research grants.	Creates two categories of research grants; fundamental research (to be called NRI grants); and applied research (to be called IFAFS grants). Matching funds are required for IFAFS grants, not for NRI grants. Authorizes \$500 million in annual appropriations, and transfers mandatory IFAFS funds to support the merged NRI/IFAFS program. <i>[Section 7106]</i>	No comparable provision.
5. Most current research and extension programs appear as individual line items in the President’s annual budget request.	Requires the President to submit an annual budget making a single line item request for capacity programs and a single line item request for competitive programs. <i>[Section 7102]</i>	No comparable provision.
6. Section 1403 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (NARETPA, Title XIV of P.L. 97-98) sets out the purposes of agricultural research and extension.	Adds integrating and organizing all USDA research, extension, and education programs; minimizing duplication; and maximizing cooperation to the purposes of the Department’s research mission. <i>[Section 7103]</i>	Directs the Undersecretary to submit a “roadmap” that, among other things, describes recommended funding for competitive programs and infrastructure programs as unified categories; the Undersecretary has flexibility in implementing the “roadmap.” <i>[Section 7402]</i>
7. Current law limits eligibility for formula funded and other non-competitive research, extension, and education programs to 1862 and 1890 institutions, 1994 institutions (tribally controlled colleges), and Hispanic-serving institutions.	Expands eligibility for these programs to public non-land grant institutions offering 4-year degrees in agriculture (ASCARR institutions). <i>[Section 7102]</i>	Requires the “roadmap” to include consideration of the needs of ASCARR institutions in addition to those of the 1862, 1890, 1994, and Hispanic-serving institutions. <i>[Section 7402]</i>
8. Under current law there are capacity-building grant programs for 1890 and 1994 institutions, and Hispanic-serving institutions.	Authorizes the appropriation of such sums as necessary for a new capacity-building grant program for American Association of State Colleges of Agriculture and Renewable Resources (ASCARR) institutions. <i>[Section 7107]</i>	No comparable provision.

CURRENT LAW/POLICY	HOUSE-PASSED BILL (H.R. 2419)	SENATE-PASSED AMENDMENT (H.R. 2419)
9. Section 1417 of NARETPA makes land grant and non-land grant, high minority enrollment, and secondary and post-secondary institutions eligible for higher education grants.	Expands eligibility for grants and fellowships for food and agricultural sciences education to include Agriculture in the K-12 Classroom programs, nonprofit organizations, and other institutions of higher education. <i>[Section 7206]</i>	Contains an identical provision. <i>[Section 7007]</i>
10. The Hatch Act and Smith-Lever Acts set the minimum amount of federal formula funds required to be spent on multistate research and extension projects at either 25% or twice the percentage of state matching funds, whichever is less.	Sets 25% as the minimum amount of federal formula funds that must be expended on multistate research and extension projects. <i>[Section 7603]</i>	No comparable provision.
11. Annual plans of work are required from the states in order to receive federal funds under NARETPA, the Hatch Act of 1887 (for research), and the Smith-Lever Act (for extension).	Requires USDA to prepare a report for Congress on how to streamline the submission, reporting requirements, and implementation of plan-of-work requirements for the three statutes. <i>[Section 7602]</i>	Contains an identical provision. <i>[Section 7503]</i>
12. The 1998 research act requires CSREES to conduct merit reviews of non-competitive research and extension grants, and peer reviews of competitive grants.	Provides for the continuation, under NIFA, of the mandatory merit and peer review processes for non-competitive and competitive grants. <i>[Section 7601]</i>	No comparable provision.
13. Section 1462(a) of NARETPA currently limits the amount of indirect costs that USDA reimburses to institutions that are awarded research, extension, and teaching grants to 19%.	Amends Section 1462(a) to apply the 19% limitation on indirect cost reimbursement to any grant the institution receives, not just competitively awarded grants. <i>[Section 7225]</i>	Raises the limitation on reimbursement of indirect costs from 19% to 30% for competitively awarded research, extension, and teaching grants. <i>[Section 7027]</i>
14. Section 1408(g)(1) of NARETPA authorizes the National Agricultural Research, Extension, Education, and Economics Advisory Board.	Increases authorized appropriations for the Advisory Board from \$350,000 to \$500,000 annually. <i>[Section 7201]</i>	Contains an identical provision. <i>[Section 7002]</i>

CURRENT LAW/POLICY	HOUSE-PASSED BILL (H.R. 2419)	SENATE-PASSED AMENDMENT (H.R. 2419)
15. Subtitle K of NARETPA authorizes miscellaneous programs.	No comparable provision.	Authorizes \$19 million annually through FY2012 for competitive grants to the Consortium for Agricultural and Rural Transportation Research and Education. <i>[Section 7051]</i>
<b>2. Provisions Affecting the University of the District of Columbia (UDC), 1890 Land Grant Institutions, Institutions in Insular Areas, and Hispanic-serving Institutions</b>		
1. Section 1417 of NARETPA authorizes grants and fellowships to land grant colleges and universities for food and agricultural sciences education.	Amends Section 1417 specifically to make UDC eligible to receive education grants and fellowships. <i>[Section 7204]</i>	Contains an identical provision. <i>[Section 7004]</i>
2. Section 1447 of NARETPA authorizes grants to upgrade agriculture and food science facilities at the 1890 institutions.	Extends eligibility to UDC for grants to upgrade facilities, and authorizes appropriations of \$750,000 annually through FY2012 for that purpose. <i>[Section 7212]</i>	Contains an identical provision. <i>[Section 7020]</i>
3. The District of Columbia Public Post-secondary Education Reorganization Act (P.L. 93-471) designates UDC as a land grant institution, with certain exceptions.	Makes UDC eligible to receive funds for the Expanded Food and Nutrition Education Program (EFNEP). <i>[Section 7512]</i>	Contains an identical provision. <i>[Section 7313]</i>
4. The Hatch Act of 1887 authorizes federal funding for agricultural research in the states and U.S. territories.	Exempts UDC from the matching funds requirement for Hatch Act funds. <i>[Section 7513]</i>	Contains an identical provision. <i>[Section 7304]</i>
5. The 2002 farm bill amended Section 1444(a)(2) of NARETPA to require that federal support for extension at the 1890 institutions be at least 15% of the amount appropriated for 1862 extension programs.	Increases the level of required federal support for extension at the 1890 institutions to 20% of the amount appropriated for 1862 extension programs. <i>[Section 7215]</i>	Contains an identical provision. <i>[Section 7017]</i>
6. The 2002 farm bill amended Section 1445(a)(2) of NARETPA to require that federal support for research at the 1890 institutions be at least 25% of the amount	Increases the level of required federal support for research at the 1890 schools to 30% of the amount appropriated for research at the 1862 schools. <i>[Section 7216]</i>	Contains an identical provision. <i>[Section 7018]</i>

CURRENT LAW/POLICY	HOUSE-PASSED BILL (H.R. 2419)	SENATE-PASSED AMENDMENT (H.R. 2419)
<p>appropriated for research at the 1862 universities.</p> <p>7. Section 1434(b) of NARETPA defines which institutions are eligible for animal health and disease funding.</p> <p>8. The 2002 farm bill amended Section 1449 of NARETPA to phase in increasing state matching funds for federal formula funds for research and extension at the 1890 institutions, reaching the 100% matching level in FY2007. Expires after FY2007.</p> <p>9. Section 3 of the Smith-Lever Act (extension) authorizes federal funds for cooperative extension programs in the states.</p> <p>10. The McIntire-Stennis Cooperative Forestry Act (P.L. 87-788, Sec. 2) authorizes forestry research programs.</p> <p>11. Section 1447 of NARETPA authorizes grants to upgrade facilities at 1890 institutions.</p> <p>12. Funding for tropical and subtropical research currently is provided under the Special Research grant program to the land grant institutions in U.S. insular areas (7 U.S.C. 450i).</p>	<p>No comparable provision.</p> <p>Makes permanent the requirement that states provide a 100% match to federal funds for research and extension at the 1890 colleges. <i>[Section 7220]</i></p> <p>No comparable provision.</p> <p>No comparable provision.</p> <p>Amends NARETPA to authorize \$8 million annually, specifically for grants to land grant institutions in insular areas to upgrade agriculture and food science facilities. <i>[Section 7237]</i></p> <p>No comparable provision.</p>	<p>Specifies that 1890 institutions are eligible to receive funding for animal health and disease research. <i>[Section 7016]</i></p> <p>Contains an identical provision. <i>[Section 7022]</i></p> <p>Makes the 1890 institutions eligible to receive funding for the Children, Youth, and Families Education and Research Network Program. <i>[Section 7303]</i></p> <p>Makes the 1890 institutions eligible for McIntire-Stennis forestry research funds. <i>[Section 7310]</i></p> <p>No comparable provision.</p> <p>Adds to Subtitle K of NARETPA (miscellaneous programs) specific authority for a Tropical and Subtropical Agricultural Research competitive grant program limited to the insular area land grant institutions and divided equally between the Caribbean and Pacific basins. Authorizes the appropriation of such sums as necessary. <i>[Section 7038]</i></p>

CURRENT LAW/POLICY	HOUSE-PASSED BILL (H.R. 2419)	SENATE-PASSED AMENDMENT (H.R. 2419)
13. Subtitle K of NARETPA authorizes miscellaneous programs.	No comparable provision	Establishes a competitive grant program to support the development of research, extension, and education programs at land grant institutions in the American Pacific region, including Alaska and Hawaii. <i>[Section 7041]</i>
14. Section 1425(c)(2)(B) of NARETPA sets a minimum distribution level and a formula for distribution of any annual appropriation for EFNEP in excess of the previous year's level.	Amends NARETPA to authorize \$90 million in annual appropriations for EFNEP; sets a minimum annual distribution of \$100,000 in EFNEP funds to each land grant institution; sets minimum percentages of EFNEP funding for the 1890 institutions through FY2013; establishes a formula (based on income poverty guidelines) for distributing EFNEP funds after FY2013 to the states having 1890 institutions; establishes that UDC is eligible to receive EFNEP funds. <i>[Section 7604]</i>	Section 7313 establishes UDC's eligibility to receive EFNEP funds. The bill does not contain a section with provisions comparable to the other items in Section 7604 of the House bill.
15. Section 1417(b)(4) of NARETPA authorizes capacity-building grants for research and teaching at high minority-enrollment institutions.	Extends eligibility for higher education capacity-building grants and fellowships to extension programs at high minority-enrollment institutions. <i>[Section 7605]</i>	Contains an identical provision. <i>[Section 7005]</i>
16. Section 1455 of NARETPA authorizes grants to Hispanic-serving institutions to strengthen educational capacity, and authorized \$20 million annually in appropriations through FY2007.	Adds a new section establishing an endowment fund for Hispanic-serving institutions, to be used for basic institutional support. Authorizes appropriated funds through FY2012 to establish a competitive grant program to build Hispanic-serving institutions' educational capacity. Authorizes appropriations through FY2012 for a competitive grant program to fund basic and applied research at Hispanic-serving institutions. Authorizes appropriations to be awarded competitively to 1862 institutions for collaborative extension projects with Hispanic-serving institutions. <i>[Section 7222]</i>	(a) Clarifies Hispanic-serving institutions' eligibility for programs authorized under NARETPA. <i>[Section 7001]</i>  (b) Contains an identical provision to Section 7222 in the House bill. <i>[Section 7024]</i>

CURRENT LAW/POLICY	HOUSE-PASSED BILL (H.R. 2419)	SENATE-PASSED AMENDMENT (H.R. 2419)
17. The current definition of “Hispanic-serving institution” in NARETPA is based on a formula found in Section 316(b)(1) of the Higher Education Act of 1965.	Changes the definition of a Hispanic-serving institution in NARETPA from one based on a formula to one based on the total enrollment of students being at least 25% Hispanic. <i>[Section 7234]</i>	Contains an identical provision. <i>[Section 7001]</i>
18. Section 1458 of NARETPA authorizes USDA agencies and land grant institutions to participate in international research, extension, and teaching programs.	Extends eligibility for participation in international research, extension, and teaching programs to Hispanic-serving institutions. <i>[Section 7223]</i>	Contains an identical provision. <i>[Section 7025]</i>
<b>3. Organic Agricultural Research</b>		
1. Section 1672B of the 1990 farm act (P.L. 101-624) provides \$3 million annually in mandatory funds to support an organic agriculture research and extension initiative.	Amends the 1990 act to add emphasis on the environmental impact of organic farming and on new plant varieties especially suited to organic farming; authorizes annual appropriations through FY2012 of \$25 million; and provides \$25 million annually in mandatory funds through FY2012. <i>[Section 7310]</i>	Provides \$16 million annually in mandatory funds through FY2012 to support the organic research and extension initiative. <i>[Section 7104]</i>
2. No similar measure in current law.	Expresses the Sense of Congress that the level of funding for ARS (in-house) research on organic agriculture should be at least commensurate with the percentage that organic products represent of the U.S. food market. <i>[Section 7608]</i>	Contains an identical provision. <i>[Section 7505]</i>
3. Section 7405 of the 2002 farm bill established the Beginning Farmer and Rancher Development program.	No comparable provision.	Authorizes \$30 million in annual appropriations through FY2012 for the program, and permits grants to be made to beginning farmers and ranchers who are converting to certified organic production. <i>[Section 7309]</i>

CURRENT LAW/POLICY	HOUSE-PASSED BILL (H.R. 2419)	SENATE-PASSED AMENDMENT (H.R. 2419)
<b>4. Specialty Crops Research</b>		
<p>1. The Specialty Crop Competitiveness Act of 2004 (P.L. 108-465) established a specialty crop committee to inform the Advisory Board on research needs.</p> <p>2. Section 1672 of the 1990 farm act authorizes research and extension grants on specialty crops as a high-priority research area.</p> <p>3. Food safety research is part of USDA’s research, extension, and education mission area, and is included in both intra- and extramural programs.</p> <p>4. Section 1419A of NARETPA authorizes the Secretary to enter into a wide variety of grants and other collaborative agreements with private and public educational institutions, corporations, and individuals to conduct independent research and public policy analysis on food and agriculture.</p>	<p>Amends the 2004 act to expand the information that the specialty crop committee provides the Advisory Board to include a comprehensive analysis of the specialty crop sector. <i>[Section 7204]</i></p> <p>Adds a specialty crop research initiative to Title IV (new initiatives) of the 1998 research act (P.L. 105-185). Authorizes annual appropriations of \$100 million through FY2012 and provides \$215 million annually in mandatory funds. <i>[Section 7411]</i></p> <p>Authorizes USDA to make competitive research and extension grants to universities and other entities to design and implement programs to improve the safety of fresh-cut produce; authorizes appropriation of such sums as necessary, and provides \$25 million annually in mandatory funds through FY2012. <i>[Section 7511]</i></p> <p>Requires the Food and Agricultural Policy Research Institute (FAPRI, a university-based economic research institute, partially supported by federal funds) to establish a corollary institute — drawing on expertise at universities in states with substantial specialty crop production — specializing in specialty crop policy research. <i>[Section 7235]</i></p>	<p>No comparable provision.</p> <p>Contains the identical provision, except that it authorizes \$16 million annually in mandatory funds through FY2012. <i>[Section 7211]</i></p> <p>No comparable provision.</p> <p>No comparable provision.</p>



CURRENT LAW/POLICY	HOUSE-PASSED BILL (H.R. 2419)	SENATE-PASSED AMENDMENT (H.R. 2419)
<b>5. Bioenergy Research</b>		
<p>1. No provision in current law.</p> <p>2. Section 411 of the 1998 research act establishes an agricultural bioenergy and biobased products research initiative, and authorizes the appropriation of such sums as necessary.</p> <p>3. No provision in current law.</p>	<p>Establishes a renewable energy committee to report to the Advisory Board concerning research needs and budget recommendations. <i>[Section 7203]</i></p> <p>Establishes a network of federal, state, and private laboratories to carry out the purposes of the bioenergy and biobased products research initiative, to be coordinated by the new National Agricultural Research Program Office (NARPO); awards grants competitively to entities in the network; authorizes \$50 million annually in appropriations through FY2012. <i>[Section 7410]</i></p> <p>Establishes a New Era Rural Technology Program that makes grants available to rural community colleges and technical centers to support training a workforce in bioenergy, renewable energy, and pulp and paper manufacturing; authorizes appropriation of such sums as necessary. <i>[Section 7312]</i></p>	<p>No comparable provision.</p> <p>No comparable provision.</p> <p>Establishes a similar program of the same name. <i>[Section 7043]</i></p>
<b>6. Miscellaneous Research</b>		
<p>1. No comparable provision.</p>	<p>Authorizes the Secretary to establish animal disease laboratories, conduct research on diseases that constitute a threat to the livestock industry, and gives the Secretary discretion over the importation and movement of live viruses. <i>[Section 7108]</i></p>	<p>Requires USDA to issue a permit to the Department of Homeland Security for work on live Foot and Mouth Disease virus at the National Bio- and Agro-defense Laboratory, and clarifies that only the Secretary of Agriculture has the authority to grant and revoke such permits. <i>[Section 11016]</i></p>

CURRENT LAW/POLICY	HOUSE-PASSED BILL (H.R. 2419)	SENATE-PASSED AMENDMENT (H.R. 2419)
2. The ARS National Animal Disease Center in Ames, Iowa, is currently the highest bio-security lab for animal disease research.	No comparable provision.	Authorizes \$16 million annually through FY2012 for construction of a higher-level bio-secure ARS animal health and disease facility in Bozeman, Montana. <i>[Section 7508]</i>
3. Section 1415A of NARETPA authorizes a program to defray the school loans of veterinary medical school graduates who agree to serve for limited time periods in under-served areas.	No comparable provision.	Amends the program to require USDA to favor large and mixed animal practitioner shortages in rural areas in the initial phases of program implementation. <i>[Section 7003]</i>
4. Section 1672(e) of the 1990 farm bill authorizes USDA to make grants for research and extension projects in a variety of high priority subject areas.	Adds nine new subjects to the list of high priority research and extension areas. <i>[Section 7305]</i>	No comparable provision.
5. Section 410 of the 1998 research reform act provides a one-time transfer of \$8 million in mandatory funds to make grants to four national youth organizations to support pilot projects in rural areas; also provides authority for appropriations through FY2007.	Amends the 1998 act to encourage flexibility in making grants to youth organizations; allows the organizations to redistribute grant funds within themselves; authorizes the appropriation of such sums as necessary through FY2012. <i>[Section 7408]</i>	Reauthorizes appropriations for this purpose through FY2012. <i>[Section 7209]</i>
6. Authority currently exists for a number of international agricultural research exchange opportunities under several different statutes.	Establishes a Borlaug International Agricultural Science and Technology Fellowship Program to promote collaborative activities between U.S. and foreign agricultural professionals and the international agricultural research system; authorizes the appropriation of such sums as necessary. Program emphasis is on developing countries as determined by a gross national income per capita test. <i>[Section 7606]</i>	Contains a similar provision. <i>[Section 7042]</i>
7. The Act of March 4, 1927, authorizes the establishment of the National Arboretum.	Amends the 1927 act to authorize the construction of a Chinese garden at the National Arboretum; authorizes federal appropriations for this purpose. <i>[Section 7509]</i>	Authorizes the construction of a Chinese Garden at the National Arboretum but forbids the use of appropriated federal funds. <i>[Section 7312]</i>

CURRENT LAW/POLICY	HOUSE-PASSED BILL (H.R. 2419)	SENATE-PASSED AMENDMENT (H.R. 2419)
8. Subtitle K of NARETPA authorizes miscellaneous programs.	No comparable provision.	Authorizes appropriations for competitive grants to nonprofit organizations to distribute donated vegetable seeds to community food projects in low-income areas. <i>[Section 7046]</i>
9. Subtitle K of NARETPA authorizes miscellaneous programs.	No comparable provision.	Authorizes appropriations for competitive grants to support farm safety education and outreach. <i>[Section 7047]</i>
10. Subtitle K of NARETPA authorizes miscellaneous programs.	No comparable provision.	Authorizes appropriations for competitive grants to increase the participation of women and underrepresented minorities from rural areas in science, technology, engineering, and mathematics education and careers. <i>[Section 7408]</i>
11. Subtitle K of NARETPA authorizes miscellaneous programs.	No comparable provision.	Authorizes the land grant colleges and universities to establish regional centers of excellence for specific agricultural commodities (and in particular, one for poultry sustainability); authorizes appropriations and requires matching funds. <i>[Section 7039]</i>
12. No provision in current law.	Prohibits the Secretary from disposing of any land or facilities at the Grazinglands Research Laboratory in El Reno, Oklahoma. <i>[Section 7109]</i>	No comparable provision.
13. No provision in current law.	Authorizes the Secretary to lease land at the El Reno facility to the University of Oklahoma. <i>[Section 7111]</i>	No comparable provision.
14. No provision in current law.	Requires scientists conducting research on biotech crops to receive training in USDA's biotech regulatory regime. Authorizes the certification of third-party providers of such training. <i>[Section 7110]</i>	No comparable provision

CURRENT LAW/POLICY	HOUSE-PASSED BILL (H.R. 2419)	SENATE-PASSED AMENDMENT (H.R. 2419)
15. No provision in current law.	Authorizes the appropriation of such sums as necessary to award a grant to update USDA's Nutrient Composition Handbook for Beef. <i>[Section 7112]</i>	No comparable provision.
16. No provision in current law.	Expresses the Sense of Congress that there should be greater support for USDA human nutrition research. <i>[Section 7113]</i>	No comparable provision.
17. Section 1433 of NARETPA authorizes animal health and disease research.	Encourages setting priorities for animal health and disease research through regular regional and national meetings. <i>[Section 7213]</i>	No comparable provision.
18. Section 1424(b) of NARETPA authorizes a human nutrition research initiative.	Adds as a focus of human nutrition research the examination of the efficacy of current agriculture policies in promoting the health and welfare of economically disadvantaged populations. <i>[Section 7236]</i>	No comparable provision.
19. Section 1672(d) of the 1990 farm bill encourages the Secretary to give funding priority to meritorious high-priority research proposals that are collaborative.	Requires USDA to give funding priority to collaborative research grants. <i>[Section 7303]</i>	No comparable provision.
20. The 1990 farm bill authorizes research and extension on aflatoxin.	Changes the focus of aflatoxin research and extension from controlling aflatoxin to improving and commercializing control technologies. <i>[Section 7304]</i>	No comparable provision.
21. The 1990 farm bill authorizes a nutrient management research and extension initiative.	Adds dairy cattle waste and regional concerns to the purposes of the nutrient management research and extension initiative. <i>[Section 7307]</i>	No comparable provision.
22. Section 1417(i) of NARETPA authorizes a National Food and Agricultural Sciences Teaching Award program.	No comparable provision.	Adds extension and research to the award program and requires that at least one cash award be made per year. <i>[Section 7006]</i>

CURRENT LAW/POLICY	HOUSE-PASSED BILL (H.R. 2419)	SENATE-PASSED AMENDMENT (H.R. 2419)
23. Subtitle K of NARETPA authorizes miscellaneous programs.	No comparable provision.	Establishes a National Farm Management Center to create a public farm benchmarking database and to improve farm financial management training, among other things. <i>[Section 7037]</i>
24. Subtitle K of NARETPA authorizes miscellaneous programs.	No comparable provision.	Authorizes appropriations to support a research program on the discovery and development of products from plant, marine, and microbial sources. <i>[Section 7049]</i>
25. Subtitle K of NARETPA authorizes miscellaneous programs.	No comparable provision.	Authorizes a \$1 million annual appropriation to support nonprofit research on international anti-hunger and nutrition activities. <i>[Section 7050]</i>
26. Subtitle K of NARETPA authorizes miscellaneous programs.	No comparable provision.	Authorizes appropriations for competitive grants to establish regional centers of excellence in food systems veterinary medicine. <i>[Section 7052]</i>
27. Section 604 of the 1998 research act authorizes the Food Animal Residue Avoidance Databank (FARAD).	No comparable provision.	Authorizes annual appropriations of \$2.5 million through FY2012 for FARAD. <i>[Section 7213]</i>
28. Section 759 of the FY2000 USDA appropriations act (P.L. 106-78) authorizes competitive grants for education at Alaska Native- and Native Hawaiian-serving institutions.	No comparable provision.	Permits the Alaskan consortia of institutions to designate fiscal agents for each member institution, and to allocate funds among members. <i>[Section 7308]</i>
29. P.L. 103-354 reorganized USDA in 1994, including the merger and realignment of certain research agencies.	No comparable provision.	Adds a section to the 1994 act giving the Secretary authority to exchange, sell, or otherwise dispose of animals, animal products, plants, and plant products of the Agricultural Research Service (with the exception of seeds and germplasm). <i>[Section 7314]</i>

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30. P.L. 103-354 reorganized USDA in 1994.	No comparable provision.	Adds a section to the 1994 act authorizing a pilot program to allow property at the ARS research center and the National Agricultural Library in Beltsville, Maryland, to be leased out for enhanced uses. <i>[Section 7316]</i>
31. Research on antibiotic-resistant bacteria in livestock is authorized under general statutory authority for federal and state agricultural research.	No comparable provision.	Authorizes a competitive grant program for targeted research on antibiotic-resistant bacteria in livestock. <i>[Section 7317]</i>
32. No provision in current law.	No comparable provision.	Requires the Secretary to prepare a report, in coordination with other federal health agencies, on the prevalence of areas in the United States with limited access to affordable and nutritious food, and to make recommendations to address the problem. <i>[Section 7504]</i>
33. No provision in current law.	No comparable provision.	<p>Requires USDA to prepare a report on: (1) the state of domestic and international markets for products from cloned animals; and (2) the safety of food products (particularly milk) from cloned animals. <i>[Section 7507]</i></p> <p>Note: Section 7502 concerns matters pertaining to a recruitment and hiring process for ARS and the Forest Service that does not directly affect research policy.</p> <p>Note: Section 7506 concerns matters pertaining to the National Finance Center and the National Information Technology Center that are not related to the USDA research mission area.</p>