USDA
United States Department of Agriculture, Economic Research Service

2014 Farm Bill Research Title Highlights

"Ag in Uncertain Times" Webinar, April 7, 2014

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Overall structure of the public agricultural research system survives intact, with changes.

- The Foundation for Food and Ag Research
- Greater coordination with industry and outside groups
- Continuing support for some initiatives
- Consolidation and repeal of others

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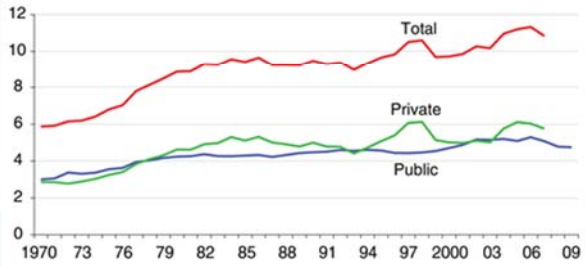
Growth in real agricultural research has depended on private funding

Real food and agricultural research and development funding, 1970-2009

$ billion (2006 dollars)



Note: Data for 2008-09 are preliminary.
Source: USDA, ERS based on data from National Science Foundation, USDA's Current Research Information System (CRIS), and various private sector data sources. Data are adjusted for inflation using an index for agricultural research spending developed by ERS.

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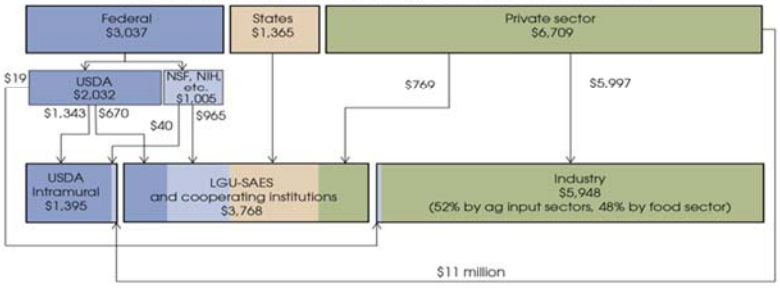
A systems view of U.S. agricultural research

Figure 2

Federal, State, and private institutions both funded and performed food and agricultural research in 2007

The U.S. Food and Agricultural Research System

Funders and performers of U.S. food and agricultural research in 2007 ($ million)



Total U.S. food & agricultural R&D performed: $11,110 million ($5,163 million public + $5,948 million private)

Source: Public research and development (R&D) is from U.S. Department of Agriculture (2007) except for USDA grants to industry, which is from the NSF (2009). Private R&D is from Fuglie et al. (2011). Numbers may not sum due to rounding. NSF = National Science Foundation; NIH = National Institutes of Health; LGU = land-grant universities; SAES = State agricultural experiment stations.

From King, Toole, and Fuglie (2012)

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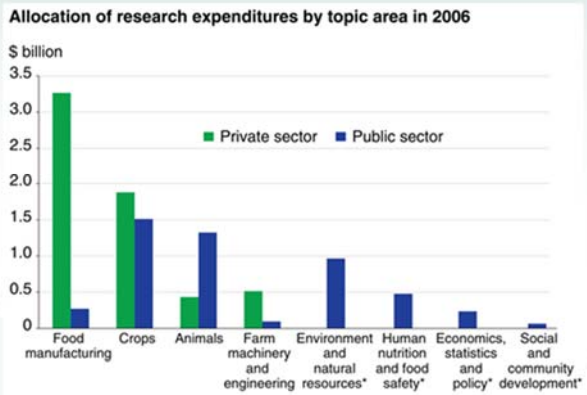
The Foundation for Food and Agricultural Research

- Nonprofit corporation to encourage public-private partnerships in research.
- $200M in mandatory funds, to be matched by outside funds
- Potential source of new resources during a period of stagnant funding

FFAR, cont.

- Soliciting board members from industry now ffar@usda.gov
- Other notable foundations: NIH, USFS, National Parks, and Fish & Wildlife Foundation

Coordination might boost public research areas



*Private-sector investment is likely to be greater than zero, but reliable figures could not be obtained.
Source: ERS, *The Complementary Roles of the Public and Private Sectors in U.S. Agricultural Research and Development*, EB-19.

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Changes to competitive awards

- New matching funds requirements
  - Excludes projects with Land Grant/USDA agency participation, (majority of competitively awarded projects)
  - Matching funds already required for capacity programs: FY2012: $1.1B from States, $273M from Industry
- State commodity boards can propose RFAs (with matching awards)
- Relevance and Merit Review of research and extension

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Specialty Crops Research Initiative: Greater funding & industry coordination

- $80 million mandatory funding per year
  - ➢ $25M for emergency citrus research
  - ➢ Subcommittee in larger specialty crops committee comprised of industry representatives
- Funds for organic agriculture R&D increase to $20M/year
- Additional review for industry relevance conducted by industry representatives

Retained initiatives included changes:

- Animal Health and Productivity: broader support for research & extension and veterinary services
  - ➢ $5M/year set aside State-directed capacity funds
- Biosecurity R&D less than previous peaks, but still authorized to receive $32M/year

More changes to existing initiatives

- Beginning farmers and ranchers program mandatory funding increases from $15 to $20M annually.
  - Now open to community- and school-based agriculture education organizations.
  - New topic: farm safety
  - 5% set-aside for veterans, 5% set aside for limited-resource farmers and ranchers.
- Forestry Products: $7M/year

New: Ag and Food Law Research Center $5M/year

High Priority Research & Extension Initiatives for competitive grants 2014-2018

- Dairy financial risk management
- Potatoes resistant to blight and other diseases, insects
- Bighorn and domestic sheep
- Agricultural development in the American-Pacific region
- Tropical and subtropical agriculture
- Women and minorities in STEM fields
- Alfalfa and forage
- Coffee plant health
- Corn & soybean meal
- Pulse crop health
- Training coordination for food & ag protection
- **Pollinator initiatives expanded** to include health and population surveillance, more pollinator disorders.

Many more high-priority eliminated, though some are covered by other initiatives

Ethanol; Aflatoxin; Prickly pear; Deer tick ecology; Peanut market enhancement; Cotton; Methyl bromide; Wetlands use; Food safety; Financial risk management; Ornamental tropical fish; Gypsy moth; Tomato spotted wilt virus; Genetically modified products; Land use management; Water and air quality; Revenue and insurance tools; Agrotourism; Nitrogen-fixation by plants; Environment and private lands; Livestock disease; Plant gene expression; Animal infectious diseases; Childhood obesity; Integrated pest management; Sugarcane genetics; Livestock operations air emissions; Swine genome project; Cattle fever tick program; Synthetic gypsum; Cranberry research program; Sorghum research initiative; Marine shrimp farming program; Turfgrass; Agricultural worker safety; High plains aquifer region; Deer; Pasture-based beef systems; Agricultural practices relating to climate change; Brucellosis control and eradication; Viral hemorrhagic septicemia; Farm and ranch safety;

Food systems veterinary medicine; Biochar.

New Competitive, Special & Facilities Research Grants Priority Areas

- Plant-based food nutrients
- Pest & diseases in wildlife populations
- Economics of water conservation & quality
- Pesticide research:
  - Data for pesticide registration
  - For specialty crops and minor uses: R&D on pest management, trade barriers caused by pesticide residues, registration-related issues

Increased reporting requirements

- Increased concerns about duplicative research
- New: ARS and ERS must report on line-item research programs
- New: NIFA must report on each competitive program in the budget
- GAO 2013 report (13-255):
  - No recent examples of duplication offered
  - 20 randomly-selected research projects did not identify duplicative projects
  - Nonetheless, safe-guards suggested

Centers of Excellence to receive priority in competitive grants

- Reduce unnecessary duplication
- Leverage available resources through public-private research
- Incentivize formal partnerships
- Give preference to high priority areas
- Emphasize teaching and extension

Links to Other Resources

The ERS web page has detailed information about Research and other titles of the Agricultural Act:

- ERS Agricultural Act Highlights& Implications
  http://www.ers.usda.gov/agricultural-act-of-2014-highlights-and-implications.aspx

Also see:

- USDA Agricultural Act page
  http://www.usda.gov/wps/portal/usda/usdahome?navid=farmbill