

INVESTMENTS IN AGRICULTURE & FOOD SCIENCE
LEAD TO HEALTHY ANIMALS, HEALTHY PLANTS, HEALTHY SOIL, HEALTHY PEOPLE

USDA AGRICULTURAL RESEARCH SERVICE

**USDA's "in-house" research arm
tackles critical agriculture
challenges requiring
long-term investments**

ARS = SCIENCE-BASED SOLUTIONS

\$1.286 billion requested

**Improve the competitiveness and sustainability
of U.S. agriculture. Maintain the capacity and
readiness to respond to emerging problems**

**Increased funding will ensure the ARS can
respond to pests and diseases, drought,
food safety issues, environmental concerns
and make progress towards solving problems
facing America's crop, livestock, dairy, poultry
and forage producers**

FRIENDS OF ARS

[Agricultural & Applied Economics Association](#)
[American Association of Myobacterial Diseases](#)
[American Dairy Science Association](#)
[American Malting Barley Association](#)
[American Seed Trade Association](#)
[American Society for Horticultural Science](#)
[American Society for Microbiology](#)
[American Society for Nutrition](#)
[American Society of Agronomy](#)
[American Society of Plant Biologists](#)
[American Soybean Association](#)
[American Veterinary Medical Association](#)
[Association of American Universities](#)
[Association of American Veterinary Medical Colleges](#)
[Association of Public and Land-grant Universities](#)
[Consumer Federation of America](#)
[Council on Food, Agricultural and Resource Economics](#)
[Crop Science Society of America](#)
[Ecological Society of America](#)
[Entomological Society of America](#)
[FASS, Inc.](#)
[Farm Journal Foundation](#)
[Mycobacterial Diseases of Animals Multistate Initiative](#)
[National Association for the Advancement of Animal Science](#)
[National Association of Federal Veterinarians](#)
[National Association of State Departments of Agriculture](#)
[National Association of Wheat Growers](#)
[National Barley Growers Association](#)
[National Barley Improvement Committee](#)
[National Coalition for Food and Agricultural Research](#)
[National Corn Growers Association](#)
[National Sunflower Association](#)
[National Wheat Improvement Committee](#)
[The Pollinator Partnership](#)
[Rural and Agriculture Council of America](#)
[Society for Range Management](#)
[Soil Science Society of America](#)
[U.S. Canola Association](#)
[U.S. Dry Bean Council](#)
[U.S. Dairy Forage Research Center](#)
[USA Dry Pea & Lentil Council](#)

Current research involves biotechnology, including molecular biology; genetic engineering; and bioinformatics; application of artificial intelligence to computer technology; innovative approaches to pest control through insect neurochemistry and the use of pheromones.

ARS research is critical to anticipating and addressing challenges faced by producers of both commodity and specialty crops using big data to improve animal and crop genetics and management. ARS investment in research on antimicrobial resistance, avian influenza which has reemerged in 2017ⁱ, and foreign and domestic animal diseases, animal and plant production efficiency, as well as improving waste and water management and use efficiency must continue.

The Friends of ARS urges the Committee to tackle ARS infrastructure by investing in the next highest priority facilities identified in the Capital Investment Strategy to support ARS facilitiesⁱⁱ.

As the Committee works on ag appropriations for fiscal year 2018, the Friends of ARS urges you to provide no less than \$1.3 billion for salaries and expenses and \$99.6 million for buildings and facilities.

Final FY16	House FY17	Senate FY17	Final FY17	Friends Request FY18
\$1.143 billion	\$1.151 billion	\$1.178 billion	TBD	\$1.286 billion

ARS investment will advance our understanding of the microbiome, soil health, pollinator health, economic and environmental sustainability, how to leverage big data and digital technologies to transform agriculture, and how to improve animal health and welfare, animal production, as well as human health, and nutrition.

ARS plays a critical role in partnering with universities and industry to advance science and address emerging issues. These partnerships are strengthened through ARS support of research at these institutions.

ⁱDuring a seven month span beginning in Dec. 2014 in the Pacific Northwest, a highly pathogenic avian influenza (HPAI) outbreak spread across 21 states, affected 211 commercial and 21 backyard poultry flocks and resulted in the depopulation of 7.5 million turkeys and 42.1 million egg-layer and broiler chickens. The outbreak cost over \$1 billion, not including downtime losses faced by producers. There are currently 4 commercially available vaccines for AI licensed in the U.S. but there are several problems associated with their use. They are primarily in injectable form which makes their utilization in the face of a major disease outbreak labor and cost intensive. Additionally, their use must be approved by the USDA and state veterinarian because vaccination can have negative trade implications. Vaccinated animals cannot be differentiated from naturally infected animals. Importing countries view the presence of antibody as evidence of prior or active infection. Additional funding to further develop both the DIVA vaccination strategy for AI as well as continued research into the development of an effective vaccine against AI that can be administered via aerosol or water would greatly benefit the U.S. and its poultry industry.

ⁱⁱCapital Investment Strategy, Agricultural Research Service, USDA, April 2012.