Fiscal 2018 Agriculture Appropriations

AVMA SUPPORTS

Federal funding is needed to secure programs that directly impact veterinary medicine, animal health and welfare, food safety, animal disease surveillance and public health.

TOP REQUESTS:

- **$6,500,000, Veterinary Medicine Loan Repayment Program**
- **$3,000,000, Veterinary Services Grant Program**
- **$2,500,000, Food Animal Residue Avoidance Databank**
- **$950,000,000, Animal & Plant Health Inspection Service including $15,000,000, National Animal Health Laboratory Network**
- **$420,000,000, Agriculture & Food Research Institute**
- **$1,286,000,000, Agriculture Research Service**
- **Food Safety & Inspection Service report language**

Veterinary Medicine Loan Repayment Program / 7 USC 3101, Section 1415A

AVMA recommends $6,500,000, level funding.

USDA	FY	Final	P.L.
NIFA/REE	2017	$6,500,000	115-31
NIFA/REE	2016	$5,000,000	114-113
NIFA/REE	2015	$5,000,000	113-235
NIFA/REE	2014	$4,790,000	113-79
NIFA/REE	2013	$4,436,146	113-2
NIFA/REE	2012	$4,790,000	112-55
NIFA/REE	2011	$4,790,000	112-10
NIFA/REE	2010	$4,800,000	111-80

VMLRP participants (licensed veterinarians) **provide veterinary medical care in USDA designated veterinary shortage situations** primarily for livestock including beef cattle, dairy cows, poultry, swine, dairy goats, meat goats, sheep, equine and other animals. They play a vital role in protecting food safety and overseeing the use of antimicrobials in food-producing animals, per the FDA's Guidance for Industry #209 and #213.

Since FY10, **388 awards** have been made while nearly 1,200 veterinarians have applied. **Participants sign 3-year contracts to practice in designated VMLRP shortage situations. Veterinarians receive up to $25,000/year towards educational loans.** Educational debt has doubled since 2003 when congress authorized VMLRP. Currently, educational debt faced by new veterinarians totals $143758.

Veterinary Services Grant Program / 7 USC 3101, Section 1415B

AVMA recommends $3,000,000, a $500,000 more than FY17.

USDA	FY	Final	P.L.
NIFA/REE	2017	$2,500,000	115-31
NIFA/REE	2016	$2,500,000	114-113

The first 12 awards were made in September 2016. Authorized in the 2014 Farm Bill (PL 113-79), VSGP is competitively awarded to establish or expand veterinary practices in rural areas and to qualified entities to develop, implement, and sustain veterinary services through education, training, recruitment, placement, and retention of veterinarians, veterinary technicians, and students of veterinary medicine and veterinary technology.

Eligible entities are state veterinary medical associations, national, allied, or regional veterinary organizations, specialty boards; colleges of veterinary medicine; university research or veterinary medical foundations; departments of veterinary science and comparative medicine; state agricultural experiment stations; state, local, or tribal government agencies; entities that operate a veterinary clinic providing veterinary services in U.S. rural areas and in response to veterinary shortage situations.

Food Animal Residue Avoidance Databank / 7 USC 7642, Section 604

AVMA recommends $2,500,000, the full authorized level.

USDA	FY	Final	P.L.
NIFA/Extension	2017	$1,250,000	115-31
NIFA/Extension	2016	$1,250,000	114-113
NIFA/Extension	2015	$1,250,000	113-235
NIFA/Extension	2014	$1,250,000	113-79
NIFA/Extension	2013	$926,127	113-2
NIFA/Extension	2012	$1,000,000	112-55
NIFA/Extension	2011	$980,000	112-10
NIFA/Extension	2010	$1,000,000	111-80

FARAD helps keep milk, meat and eggs free of drug or contaminant residues (e.g. pesticides, minerals, biologic toxins) so that food they is safe for human consumption.

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FARAD scientists identify, gather, extract, analyze, generate, and extend residue avoidance information to determine scientifically-based withdrawal advice for veterinarians and livestock producers in situations involving accidental contaminations, agro-terrorism or legal extra-label drug use (ELDU) in both major and minor food-producing animal species.

In 2016, 9.6 million animals were impacted through nearly 3,400 direct FARAD cases involving chemical residues. Veterinarians and livestock producers using FARAD seek regulatory information on uses of food animal drugs. FARAD recommends withholding intervals following ELDU of selected drugs in selected species. Withholding intervals refer to the recommended period of time after an animal was last treated with a drug and before it can be sent to slaughter or its products can be sent to market. This enables food animal veterinarians to effectively treat animals with infectious disease while ensuring food safety.

Full authorized funding will allow FARAD to carry out many vital services which help keep animals healthy and our food supply safe. FARAD is capable of improving the "real time" determination of withdrawals for legal ELDU in food animal species; providing expert advice in situations involving accidental or intentional contamination of food producing animals; validating higher-level mathematical approaches for determining safe withdrawal periods, validating withdrawal estimates and expanding into contaminant exposure; broadening the DHS data elements and analyses to help mitigate the impact of intentional acts of bioterrorism on the nation's food supply; and strengthening the global FARAD to ensure that imported foods are safe to eat and expanding the U.S. domestic exports.

Animal and Plant Health Inspection Service

AVMA recommends: $950,000,000.

USDA	FY	Final	P.L.
APHIS	2017	$946,212,000	115-31
APHIS	2016	$894,415,000	114-113
APHIS	2015	$874,490,000	113-235
APHIS	2014	$824,896,000	113-79
APHIS	2013	$756,214,215	113-2
APHIS	2012	$816,534,000	112-55
APHIS	2011	$865,000,000	112-10
APHIS	2010	$904,953,000	111-80

APHIS' budget has increased a bit these last few years but much of it has been an accounting adjustment reflecting changes in how rent is paid for facilities. This is not new money that can be used to fund APHIS programs.

FY17 is not completed. In FY16, animal health programs were funded at $327.25 million while plant health programs at $308.378 million. APHIS protects U.S. livestock, poultry, specialty crops, corn, cotton, and wheat industries worth approximately $195 billion.

APHIS manpower has had a net gain of about 446 employees since its low point of employment in FY12. As part of its Highly Pathologic Avian Influenza (HPAI) preparations for 2016, APHIS was able to hire short-term appointment personnel – about 80 Veterinary Medical Officers and 150 Animal Health Technicians (of these, approximately 30 veterinarians and 50 technicians are still on board).

Increases at APHIS are needed to support its full array of programs and services as well as for manpower needs.

APHIS requires veterinarians be accredited through the **National Veterinary Accreditation Program (NVAP)** to provide services on behalf of the Federal government. There are more than 66,000 accredited veterinarians in the U.S. NVAP provides no-cost training online as well as through lectures at dozens of veterinary meetings and conventions, on 29 topics related to animal health. Each year NVAP delivers 90,000 training modules to accredited veterinarians and 45,000 modules to persons other than accredited veterinarians. NVAP also delivers the Emerging and Exotic Diseases of Animals course over 4,000 times per year to U.S. veterinary students and graduate veterinarians.

Animal Welfare: Protecting vulnerable animals from predation and those covered by the **Animal Welfare Act (AWA) and Horse Protection Act (HPA)** from inhumane treatment and taking swift enforcement action in response to violations is essential. APHIS is able to attend less than 30% of the approximately 300 Tennessee Walking Horse shows held annually. **AVMA urges Congress provide no less than $705,000 for HPA enforcement and $29 million for AWA enforcement.** APHIS Animal Care (AC) has worked to improve its inspections of approximately 10,731 sites, including commercial breeding facilities, laboratories, zoos, circuses, and airlines to ensure compliance with AWA standards. AC is actively licensing new facilities that now require USDA regulatory oversight under the retail pet store rule. AC currently consists of 114 inspectors with 7 vacancies who perform and oversee animal welfare compliance inspections, 4-species specialists with 1 vacancy who support inspectors with complex regulatory compliance issues, and 7 compliance specialists who support the pre-licensing process and other aspects of compliance assurance.

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The **National Animal Health Monitoring System (NAHMS)**, funded at $10.5 million in FY17 funding, collects, analyzes, and disseminates data on animal health, management, and productivity of U.S. livestock and poultry. It conducts its commodity-based surveys on a 4-7 year cycle. AVMA supports antibiotic use data collection through NAHMS and requests funding to enhance monitoring for antimicrobial resistant bacteria among livestock. We also support the development of metrics on antibiotic use and stewardship through collaboration between FDA, USDA, and affected commodities.

Animal disease surveillance and diagnostic testing: APHIS' animal disease surveillance includes foreign animal disease and transboundary disease response capability. APHIS works to prevent animal diseases from entering the U.S. that would cause economic devastation. Examples of diseases APHIS has recently contended with are HPAI, Porcine Epidemic Diarrhea Virus (PEDV) and Senecavirus A, a swine disease that causes vesicular lesions that mimic those found in Foot and Mouth Disease.

APHIS and NIFA's FADI combined funding to support the **62-member National Animal Health Laboratory Network** (NAHLN) with $16.3 million in FY17. APHIS support comes from four budget lines – veterinary diagnostics; cattle health; equine, cervid, and small ruminant health; and swine health. AVMA urges APHIS funding for the NAHLN at $15 million and FADI funding for the NAHLN at $10 million in FY18. A fully functional NAHLN needs something closer to $40 million going forward.

Funding will expand surveillance and surge capacity. Increases are needed to bolster the number and level of participating state labs; to spur development of infrastructure for electronic transmission of data between sample collectors, labs and state and federal databases; and increase efficiency and effectiveness of lab personnel training and employment both regionally and nationwide. Current support for the NAHLN comes from USDA-NIFA's Food and Agro-Defense Initiative and USDA-APHIS. Note: 34 NAHLN labs receive direct state appropriations of $100 million toward total lab operation expenses of $186 million.

The NAHLN is an early warning surveillance and emergency response system for emerging and foreign animal diseases and provides surge capacity for the necessary testing during disease outbreaks and during the recovery phase. NAHLN provides resources for lab testing, information management, quality assurance and the development and validation of new tests. During the recovery phase testing is necessary to establish a "disease free status" which also ensures international trading partners of that status.

During HPAI outbreaks NAHLN tests thousands of samples to ensure depopulation of infected flocks within 24 hours. NAHLN performs surveillance in surrounding areas to halt disease spread and tests premises to determine freedom of disease before repopulation occurs, and international trade resumes.

Participating NAHLN Labs: Federal, university, and state veterinary diagnostic laboratories participating can be found at https://www.nahln.org/.

Center for Veterinary Biologics (CVB) is streamlining and improving vet biologics and biotechnology system processes. CVB has improved its processes so new technologies can reach the market faster. CVB continues to increase its capacity to receive submission and received about 1,626 electronically in FY16.

APHIS promotes U.S. agriculture in the international trade by developing and advancing science-based standards with trading partners. Exports of U.S. agriculture are projected to reach $136 billion in FY17.

USDA's Food Safety & Inspection Service

AVMA urges Congress to **direct FSIS to dedicate $10 million annually for each fiscal year 2018-2022 for the purpose of retaining, recruiting and rededicating the agency to filling essential inspection duties with Public Health Veterinarians** (PHV). Such funds would be used to address inequity with FSIS remuneration, specialty pay, continuing education offerings and erasing the persistent vacancy rates, currently 11 percent, within FSIS for PHV. FSIS must ensure all slaughter plants remain under the direct supervision of PHVs. FSIS employees, including 1,005 PHVs, are located at over 6,400 slaughtering and processing establishments and import houses, and other Federally regulated facilities.

Essential inspection duties that can only be competently performed by PHVs include: 1) Ante-mortem inspection for zoonotic and foreign animal disease; 2) Post-mortem verification of food safety, disease and conditions, and carcass disposition; 3) Expert direction of the national residue program; 4) Decision and direction of sample collection for pathology and microbiological determinations; and 5) Verification of eligibility of products for export and signing of certificates.

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USDA's Research Enterprise

- **Agriculture & Food Research Institute**
  - AVMA recommends: $420,000,000
- **Agriculture Research Service**
  - AVMA recommends: $1,286,000,000

USDA	FY	Final	P.L.
AFRI	2017	$375,000,000	115-31
AFRI	2016	$350,000,000	114-113
AFRI	2015	$325,000,000	113-235
AFRI	2014	$316,400,000	113-79
AFRI	2013	$275,500,000	113-2
AFRI	2012	$265,900,000	112-55
AFRI	2011	$265,000,000	112-10
AFRI	2010	$262,400,000	111-80

USDA	FY	Final	P.L.
ARS	2017	$1,170,235,000	115-31
ARS	2016	$1,143,825,000	114-113
ARS	2015	$1,132,000,000	113-235
ARS	2014	$1,124,003,000	113-79
ARS	2013	$1,101,346,000	113-2
ARS	2012	$1,094,647,000	112-55
ARS	2011	$1,135,501,000	112-10
ARS	2010	$1,179,639,000	111-80

USDA's research enterprise plays an essential role in funding food and agricultural research, and attracting the best scientists to address national priorities in animal sciences, animal diseases, food safety, antimicrobial resistance and public health. In fact, with advancements in detection, treatment, eradication and recovery from animal diseases, the U.S. will save billions of dollars for the U.S. agricultural economy.

AVMA urges the USDA research enterprise devote more resources to vaccine development and diagnostics, antibiotics, anthelmintics (de-wormers), antifungals and parasiticides; antimicrobial use strategies, control and therapy for diseases and infections; transboundary disease and foreign animal disease; water quality; animal welfare, including animal handling and management; biosecurity for agro-tourism and prevention, surveillance and response to agro-terrorism; food security; improving genetics; management and transport of food producing animals; microbiome; and organics.

Because many infectious animal diseases have the potential to cross into the human population and impact human health, USDA is urged to collaborate with biomedical researchers to support assessments of human impacts.

Disease outbreaks lead to millions of sick animals, many of which must be culled and cost the U.S. billions in production losses and response costs. Amplifying USDA's attention to the following animal diseases will improve animal health and welfare, help protect the U.S. food animal-producing industries from economic harm, and protect U.S. consumers from contamination of the domestic food supply.

Highly Pathogenic Avian Influenza (HPAI): During a seven month span beginning in Dec. 2014 in the Pacific Northwest, a 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 US 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.

Funding to further **develop both the DIVA (Differentiating Infected from Vaccinated Animals) 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.

Foot and Mouth Disease (FMD): It is estimated that an uncontrolled outbreak of FMD would have a $200 billion impact over 10 years. FMD is a highly contagious viral disease causing fever, blisters on the feet and mouth, loss of appetite, drooling, and lameness impacts in cows, pigs, sheep, goats, deer and all other domestic and wild animals with cloven hooves. FMD is considered one of the most economically devastating diseases in the world. Most affected herds are culled. While the U.S. has been FMD-free since 1929 there is no guarantee the disease won't return – an outbreak would devastate the livestock industry. **USDA is urged to redouble investment in the development of a universal vaccine for FMD as well as biotherapeutic countermeasures that will provide immunity.**

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There are seven different types of FMD viruses and more than 60 subtypes, so vaccines must be highly specific, matched to the type and subtype present in an outbreak, to protect animals against developing clinical signs of disease. **Resources need to be devoted to investigating ways to differentiate between vaccinated and infected animals.** Current diagnostic testing methods are only validated for single sample/single animal testing. To have any hope of responding to an outbreak, pooled sample/multi-animal diagnostic tests must be developed and validated.

African Swine Fever (ASF) is a highly contagious hemorrhagic disease of pigs that produces a wide range of clinical signs and lesions that closely resemble those of classical swine fever. **There is no treatment for ASF, and all attempts to develop a vaccine have so far been unsuccessful.** Prevention depends on ensuring that neither infected live pigs nor pig meat products are introduced into areas free of ASF. All successful eradication programs have involved the rapid diagnosis, slaughter, and disposal of all animals on infected premises. Introduction of this disease into the U.S. would have a devastating effect on the American swine industry. **USDA has developed surveillance programs for the early detection of FMD and ASF. These programs are awaiting validation in order to be approved for deployment to the veterinary diagnostic laboratories.** In addition, the current sample types (oral swabs for FMD and whole blood for ASF) are not routinely included in most swine diagnostic samples submitted to the veterinary diagnostic laboratories. Additional **sample types (such as oral fluids or tonsil) need to be developed and validated. The funding necessary to support surveillance enhancement, validation and implementation need to be prioritized.**

Cattle Fever Tick (CFT) and Bovine Babesiosis: B*abesia is* emerging health threats to both animals and humans in the U.S. Accelerated research at USDA is needed to prevent catastrophic economic losses due to CFT and bovine babesiosis. Additionally there are impacts from human babesiosis due to cattle-associated *Babesia divergens* and *Babesia divergens*-like organisms which has led to an increase in the number of cases of human babesiosis over the past 25 years. **Research on novel technologies to manage and eliminate foreign livestock pests and tick-borne diseases** from south Texas is needed to protect the U.S. cattle industry from suffering losses similar to those faced by Brazil ($3 billion) and Mexico ($573 million). Movement of CFT infested wildlife (i.e., white-tailed deer and nilgai across the Mexican border) exacerbates our need to protect the U.S. cattle industry and human health.

At present, Texas is issuing temporary preventive quarantines on multiple premises in the CFT-free zone of the U.S.; however, that is not a permanent solution. We need methods for integrated eradication to control and eliminate CFT outbreaks involving wildlife, expedited area-wide tests of innovative technologies to control CFT infestation, and to adapt protocols for research in wildlife. **Technology innovation involves anti-tick vaccines; longer-acting acaricide formulations; safer acaricides; alternative acaricide delivery systems; tick growth regulators; acaropathogenic fungi and nematodes; remote surveillance and delivery systems**; and algorithms to assess return on investment for the implementation of adaptive area-wide integrated CFT eradication protocols. Resistance to acaricides commonly used to prevent/treat CFT infestation renders those treatments ineffective, and **drugs to prevent bovine babesiosis are not approved for use in the U.S. Funding is needed to research new methods to prevent further spread of CFT and to mitigate the risk for the re-emergence of bovine babesiosis.**

Animal Welfare Research

The welfare of animals used in or impacted by agricultural practices is an under-emphasized subject area. Much of the research that does exist is fragmented or industry-funded which reduces its influence in the public sphere. There are multiple areas which require concerted and transparent research efforts including: **validation of welfare assessment methods and certification schemes; stress reduction during transportation of animals; the role of genetics on welfare; outcomes for neonatal animals such as male chicks and dairy calves; welfare-friendly and practical animal housing; reduction of the use of painful procedures; and development rapid depopulation methods that are humane and acceptable to society.** In order to protect the sustainability and reputation of the agricultural sector the AVMA encourages congress to support and fund USDA research opportunities in the aforementioned areas.

AVMA & Coalition Partner Requests

AVMA joins coalitions in support of federal programs to advance food and agricultural research, animal health and welfare, food safety and antibiotic resistance.

- ✓ Animal Agriculture Coalition
- ✓ Wildlife Services Coalition
- ✓ Supporters of Agriculture Research
- ✓ AFRI Coalition
- ✓ National Coalition for Food and Agriculture Research
- ✓ Friends of ARS
- ✓ National Association for the Advancement of Animal Science
- ✓ S-FAR (U.S. Stakeholder Forum on Antimicrobial Resistance)
- ✓ Informal Coalition on Biodefense and Public Health Preparedness

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