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Purpose Statement

The Secretary of Agriculture established the Animal and Plant Health Inspection Service (APHIS) on April 2, 1972, under the authority of Reorganization Plan No. 2 of 1953 and other authorities. The mission of the Agency is to protect the health and value of American agriculture and natural resources.

Together with its stakeholders, APHIS promotes the health of animal and plant resources to facilitate their movement in the global marketplace and to ensure abundant agricultural products and services for U.S. customers. APHIS strives to assure its stakeholders that it is on guard against the introduction or re-emergence of animal and plant pests and diseases that could limit agricultural production and damage export markets. At the same time, APHIS also monitors and responds to potential acts of agricultural bio-terrorism, invasive species, diseases of wildlife and livestock, and conflicts between humans and wildlife. The Agency also manages and resolves sanitary (animal) and phytosanitary (plant) trade barriers and addresses certain issues relating to the humane treatment of animals. Finally, APHIS ensures that biotechnology-derived agricultural products are safe for release in the environment.

APHIS' mission is carried out using three major areas of activity, as follows:

Safeguarding and Emergency Preparedness/Response

In addition to APHIS' domestic monitoring, APHIS monitors plant and animal health throughout the world and uses the information to set effective agricultural import policies to prevent the introduction of foreign plant and animal pests and diseases. APHIS and the Department of Homeland Security cooperate to ensure that these policies are enforced at U.S. ports of entry. These policies prevent the entry of many invasive pests, including crop, pollinator, woodland, and livestock pests. APHIS also develops and conducts pre-clearance programs to ensure that foreign agricultural products destined for the United States do not present a risk to U.S. agriculture. The Agency engages in cooperative programs to control pests of imminent concern to the United States and to strengthen foreign plant protection and quarantine organizations. APHIS certifies plants and plant products for export to the United States and regulates imports and exports of designated endangered plant species. APHIS assists U.S. exporters and the Foreign Agricultural Service in revising foreign plant and animal import regulations to encourage and increase U.S. agricultural exports.

Should a pest or disease enter the United States, APHIS works cooperatively with other Federal, State, and industry partners to conduct plant and animal health monitoring programs to rapidly determine if there is a need to establish new pest or disease management programs. APHIS, in conjunction with States, industry, and other stakeholders, protects American agriculture by eradicating harmful pests and diseases or, where eradication is not feasible, by minimizing their economic impact. The Agency monitors endemic pests and diseases through surveys to detect their location and through inspection to prevent their spread into non-infested parts of the country.

The Agency maintains a cadre of trained professionals prepared to respond immediately to potential animal and plant health emergencies. Program personnel investigate reports of suspected exotic pests and diseases and take emergency action if necessary. To facilitate these efforts, APHIS develops pathway studies and thoroughly investigates the progression of outbreaks to determine the origin of plant and animal pests and diseases. APHIS also actively engages State, Tribal, and local governments, and industries to advance their emergency preparedness and response capabilities.

Through its Wildlife Services program, APHIS protects agriculture from detrimental animal predators through identification, demonstration, and application of the most appropriate methods of control. APHIS also develops methods to control animals and pests that are detrimental to agriculture, wildlife, and public safety. The Agency's regulatory structure brings the benefits of genetic research to the marketplace, while protecting against the release of potentially harmful organisms into the environment. APHIS also conducts diagnostic laboratory activities that support the Agency's veterinary disease prevention, detection, control, and eradication programs. The Agency also provides and directs technology development in coordination with other groups in APHIS to support plant protection programs of the Agency and its cooperators at the State, national, and international levels.

Safe Trade and International Technical Assistance

Sanitary (animal) and phytosanitary (plant) (SPS) regulations can have a significant impact on market access for the United States as an exporter of agricultural products. APHIS plays a central role in resolving technical trade issues to ensure the smooth and safe movement of agricultural commodities into and out of the United States. This is done through negotiating access to new markets, preserving existing markets, and expanding existing markets. APHIS' role is to negotiate animal and plant health certification requirements, assist U.S. exporters in meeting foreign regulatory requirements, ensure requirements are proportional to risk without being excessively restrictive, and provide any necessary technical information to support the safety of U.S. agricultural products destined for foreign markets.

APHIS helps to protect the United States from emerging plant and animal pests and diseases while meeting obligations under the World Trade Organizations SPS agreement by assisting developing countries in improving their safeguarding systems. APHIS collaborates with other Federal agencies including the Foreign Agricultural Service, the U.S. Agency for International Development, the State Department, and the Office of the U.S. Trade Representative, to implement technical and regulatory capacity building projects with shared resources. APHIS develops and implements programs designed to identify and reduce agricultural pest and disease threats while still outside of U.S. borders, to enhance safe agricultural trade, and to strengthen emergency response preparedness.

Animal Welfare

The Agency conducts regulatory activities to ensure the humane care and treatment of certain animals and horses as required by the Animal Welfare Act of 1966 as amended (7 U.S.C. 2131-2159), and the Horse Protection Act of 1970 as amended (15 U.S.C. 1821-1831). These activities include inspection of certain establishments that handle animals intended for research, exhibition, and sale as pets, and monitoring of certain horse shows.

Statutory Authorities

APHIS operates under the following authorities:

General:

7 U.S.C. 450	Talmadge-Aiken Act (cooperation with States)
21 U.S.C. 136-136a	User Fees
31 U.S.C. 9701	User Fees
7 U.S.C. 3291a(3)	Authority to provide technical assistance and training
7 U.S.C. 5680	Farm Security and Rural Investment Act of 2002-reporting on SPS issues and trade barriers
7 U.S.C. 5925	Food, Agriculture, Conservation, and Trade Act of 1990-authorizes funding for national honeybee pest survey
7 U.S.C. 2279g	Marketing Services; cooperative agreements

Animal Health:

7 U.S.C. 8301-8317	The Animal Health Protection Act
49 U.S.C. 80502	28-Hour Law (feed, water, and rest for animals)
19 U.S.C. 1202, Part I, Item 100.01	Purebred animal duty-free entry
7 U.S.C. 1622	Section 203 of the Agricultural Marketing Act of 1946
7 U.S.C. 1624	Section 205 of the Agricultural Marketing Act of 1946
7 U.S.C. 430	Section 101(d) of the Organic Act of l944

Animal Health (continued):

7 U.S.C. 3801-3813	Swine Health Protection Act
7 U.S.C. 851-855	Anti-hog cholera serum and hog cholera virus
7 U.S.C. 2274	Firearms (tick inspectors)
7 U.S.C. 1901 note	Transportation of Equines to Slaughter
21 U.S.C. 151-159	Virus-Serum-Toxin Act
21 U.S.C. 113a	Authority to establish research facilities for FMD and other diseases
21 U.S.C. 618	Section 18 of the Federal Meat Inspection Act, as amended, as it pertains to the issuance of certificates of condition of live animals for export
7 U.S.C. 8401	Title II, Subtitles B and C of the Agricultural Bioterrorism Act of 2002
7 U.S.C. 8318	Section 10504 of the Farm Security and Rural Investment Act of 2002 (training of accredited veterinarians)

Plant Health:

7 U.S.C. 7701-7772; and 7781-7786	Plant Protection Act
7 U.S.C. 1581-1611	Title III, Federal Seed Act
7 U.S.C. 2801 note; 2814	Federal Noxious Weed Act
7 U.S.C. 281-286	Honeybee Act
7 U.S.C. 2279e and 2279f	Title V of the Agricultural Risk Protection Act of 2000 (penalties for interfering with inspection animals)
16 U.S.C. 1531-1544	Endangered Species Act (plants)
16 U.S.C. 3371-3378	Lacey Act (importation or shipment of injurious mammals, birds, fish)
7 U.S.C. 8401 and 8411	Title II, Subtitle B, of the Agricultural Bioterrorism Protection Act of 2002
39 U.S.C. 3015	Alien Species Prevention and Enforcement Act of 1992

Wildlife Services:

7 U.S.C. 426-426d	Control of predatory and other wild animals

Animal Welfare:

7 U.S.C. 2131-2159	Animal Welfare Act
15 U.S.C. 1821-1831	Horse Protection Act

There were 5,520 permanent full-time employees and 2,201 other than permanent full-time employees as of September 30, 2015. Of the total, 1,155 full-time employees were located at headquarters. APHIS manages programs on a national basis through 2 regional offices and 433 field offices, including area offices, work stations, technical centers, and animal import centers. APHIS conducts much of its work in cooperation with State and local agencies, private groups, and foreign governments. APHIS performs work in the 50 States, Washington, D.C., Guam, Puerto Rico, Virgin Islands, Mexico, Central America, South America, the Caribbean, Western Europe, Asia, and Africa.

Each year, the Office of Inspector General (OIG) and the Government Accountability Office (GAO) audits selected programs to examine the efficiency of the programs and operations including program results, compliance with applicable laws and regulations, and fair presentation of financial reports. Audits in which APHIS has been involved during 2015 – 2016 include those listed below. If an audit has no specific recommendations for APHIS, the audit will not be included in this listing for APHIS.

OIG Audits – In Progress

#33601-01- 23 Plant Protection and Quarantine Preclearance Program. OIG Report was issued in November 2014 with 16 recommendations for APHIS. APHIS has until December 2015 to implement the recommendations.

#33601-01- 41 APHIS Oversight of Research Facilities. OIG Report was issued on December 11, 2014 with 15 recommendations for APHIS. APHIS has until December 2015 to implement the recommendations.

#33601-02-41 APHIS Wildlife Services – Wildlife Damage Management Start Date. OIG Report was issued in September 2015 with seven recommendations for APHIS. APHIS has until January 2016 to implement the recommendations.

#50601-01-32 Controls Over APHIS' Introduction of Genetically Engineered Organisms. OIG Report was issued in September 2015 with 13 recommendations for APHIS. APHIS has until July 2016 to implement the recommendations.

#50601-04-31 USDA Response to Antibiotic Resistance. The OIG Audit started October 2, 2014. Audit is still ongoing.

GAO Reports – Completed

#321050 Cargo Preferences for Food Aid. GAO Report was issued in August 2015 and did not contain recommendations for APHIS.

#361560 Executive Branch Efforts to Address Fragmentation in Federal Oversight of Food Safety. The GAO Report was issued in December 2014 and did not contain recommendations for APHIS.

#361569 Climate Change and Public Health. The GAO Report was issued in October 2015, and did not contain recommendations for APHIS.

#361617 Aquatic Invasive Species. The GAO Report was issued in November 2015 and did not contain recommendations for APHIS.

GAO Audits – In Progress

#361161 Horse Welfare. The GAO Report was issued in June 2011 with four recommendations for APHIS. APHIS implemented all four recommendations and is currently waiting for GAO to provide final closure.

#361330 Agricultural Quarantine Inspections. GAO Report was issued in September 2012 with three recommendations for APHIS. APHIS is currently implementing the recommendations.

#361562 Federal Veterinarian Workforce. GAO Report was issued in May 2015 with one recommendation for APHIS. APHIS is currently implementing the recommendation.

#361589 Genetically Engineered Crops. GAO Audit started November 4, 2014. APHIS awaits the issuance of the GAO draft report for Agency comment.

#361600 Federal Actions to Promote Bee Health. GAO Audit started September 24, 2014. Audit is still ongoing.

#361615 Emerging Swine Diseases. GAO Draft Report was issued in November 2015 with three recommendations for APHIS. APHIS awaits the issuance of the GAO Final Report.

#441231 Evolution of the National Biosurveillance Integration Center. GAO Audit started June 17, 2014. APHIS awaits the issuance of the GAO Final Report.

Available Funds and Staff Years (SYs)
(Dollars in thousands)

Item	2014 Actual		2015 Actual		2016 Enacted		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Salaries and Expenses:								
Discretionary Appropriations	$821,721	4,695	$871,315	4,713	$894,415	4,732	$901,196	4,807
Citrus Greening…a/	20,000	-	-	-	5,500	-	-	-
Sub-Total Disc Funding	841,721	4,695	871,315	4,713	899,915	4,732	901,196	4,807
Mandatory Appropriations: Farm Bill	58,900	15	57,938	15	58,250	15	62,500	15
Agricultural Quarantine Inspection User Fees:								
Total Collections	588,073	1,121	634,004	1,250	722,599	1,250	753,900	1,250
Buildings and Facilities:								
Discretionary Appropriations	3,175	-	3,175	-	3,175	-	3,175	-
Trust Funds:								
Mandatory Funding	8,618	50	8,139	50	8,911	50	9,000	50
Foreign Service National Separation Liability Trust	-	-	673	-	500	-	500	-
Transfers In	-	-	1,007,018	543	-	-	-	-
Transfers Out	-362,526	-	-467,463	-	-515,810	-	-534,515	-
Adjusted Appropriations	1,137,961	5,881	2,114,799	6,571	1,177,540	6,047	1,195,756	6,122
Balance Available, SOY	225,642	222	287,393	245	399,030	642	280,189	280
Other Adjustments (NET)	32,467	-	15,362	-	3,581	-	-	-
Total Available	1,396,070	6,103	2,417,554	6,816	1,580,151	6,689	1,475,945	6,402
Lapsing Balances	-4,812	-280	-2,332	-549	-	-	-	-
Balance Available, EOY	-287,393	-245	-399,030	-642	-280,189	-280	-237,350	-187
Subtotal Obligations, APHIS	1,103,865	5,578	2,016,192	5,625	1,299,962	6,409	1,238,595	6,215
Obligations under other USDA appropriations:								
Agricultural Marketing Service:								
for administrative and technical support	7,276	-	7,319	-	7,328	-	7,335	-
Agricultural Research Service:								
for administrative and technical support	3,995	-	4,539	-	4,545	-	4,549	-
Farm Service Agency:								
for administrative and technical support	-	-	25	-	25	-	25	-
Food Safety and Inspection Service								
for administrative and technical support	418	-	391	-	392	-	392	-
Foreign Agricultural Service:								
for administrative and technical support	3,675	-	4,848	-	4,854	-	4,859	-
Forest Service:								
for administrative and technical support	612	-	780	-	781	-	782	-
Grain Inspection, Packers and Stockyards Admin.:								
for administrative and technical support	1,594	-	1,635	-	1,637	-	1,639	-
National Appeals Divison:								
for administrative and technical support	10	-	15	-	15	-	15	-
National Institute of Food and Agriculture:								
for administrative and technical support	-	-	25	-	25	-	25	-
Natural Resources Conservation Service:								
for administrative and technical support	-	-	1,292	-	1,294	-	1,295	-
Office of Budget and Program Analysis:								
for administrative and technical support	32	-	-	-	-	-	-	-
Office of Human Resources Management:								
for administrative and technical support	-	-	213	-	214	-	214	-
Office of Operations:								
for administrative and technical support	-	-	4	-	4	-	4	-
Rural Development:								
for administrative and technical support	6	-	3	-	3	-	3	-
Total, Agriculture Appropriations	17,618	-	21,089	-	21,115	-	21,136	-

Item	2014 Actual		2015 Actual		2016 Enacted		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Other Federal Funds:								
DOD, U.S. Air Force	7,040	-	7,653	-	7,663	-	7,670	-
DOD, U.S. Coast Guard	36	-	2	-	2	-	2	-
DOD, Air National Guard	2,248	-	2,061	-	2,063	-	2,065	-
DOD, U.S. Navy	4,907	-	5,127	-	5,133	-	5,139	-
DOD, U.S. Marine Corps	796	-	866	-	867	-	868	-
DOD, U.S. Army	771	-	572	-	573	-	573	-
DOD, U.S. Army Corp of Engineers	1,108	-	2,657	-	2,660	-	2,663	-
DOD, Defense Finance and Accounting Services	1,053	-	-	-	-	-	-	-
Department of Energy	136	-	207	-	208	-	208	-
Department of Health and Human Services	10	-	585	-	586	-	586	-
DHS: for AQI and other services and support	1,339	-	1,426	-	1,428	-	1,430	-
Federal Emergency Management Agency	-	-		-		-		-
National Aeronautics and Space Administration	351	-	192	-	192	-	192	-
USDOI, Geological Survey, National Park Service, Office of Insular Affairs	1,396	-	829	-	830	-	831	-
USDOI, Bureau of Land Management & Reclamation: for administrative and technical support	26	-	521	-	522	-	523	-
USDOI, Fish and Wildlife Services: for natural resources and endangered species	2,299	-	3,295	-	3,299	-	3,302	-
USDOT: Federal Aviation Administration	1,463	-	1,176	-	1,177	-	1,178	-
Department of State: for miscellaneous services	363	-	249	-	250	-	250	-
Department of Veterans Affairs	-	-	30	-	30	-	30	-
EPA, IACB: for miscellaneous services	935	-	1,295	-	1,296	-	1,298	-
GSA: for miscellaneous services	2	-	17	-	17	-	17	-
Other Federal Funds	193	380	985	380	986	380	987	380
Total, Other Federal Funds	26,472	380	29,747	380	29,783	380	29,813	380
Non-Federal Funds:								
Funds from States and local entities for wildlife services support	50,768	601	52,419	640	52,483	645	52,536	645
Import-Export User Fees	43,947	320	44,894	342	44,949	347	44,993	347
Phytosanitary Certificate User Fees	17,858	95	18,153	101	18,176	104	18,194	104
Reimburseable Overtime	6,615	80	8,205	85	8,215	88	8,223	88
Veterinary Diagnostics User Fees	5,292	57	6,191	60	6,199	60	6,205	60
Other User Fees	-	-	4	-	4	-	4	-
Non-Federal	737	-	267	-	267	-	267	-
Subtotal, Reimburseable Salaries and Expenses	169,307	1,533	180,969	1,608	181,190	1,624	181,371	1,624
Total Obligations, Animal and Plant Health Inspection Service	$1,273,172	7,111	$2,197,161	7,233	$1,481,152	8,033	$1,419,966	7,839

a/ The Consolidated Appropriations Act 2014, included $20M in one-time funding via a General Provision for control, management and associated activities directly related to a multiple-agency response to citrus greening. The Consolidated Appropriations Act 2016, included $5.5M in one-time funding via a General Provision for control, management and associated activities directly related to a multiple-agency response to citrus greening.

Permanent Positions by Grade and Staff Year Summary

Item	2014 Actual			2015 Actual			2016 Enacted			2017 Estimate		
	Hdqts	Field	Total	Hdqts	Field	Total	Hdqts	Field	Total	Hdqts	Field	Total
Senior Executive Service.....	29	10	39	31	10	41	31	10	41	31	10	41
GS-15……	66	52	118	66	54	120	66	54	120	66	54	120
GS-14……	306	273	579	305	266	571	313	271	584	313	290	603
GS-13……	259	452	711	267	464	731	267	466	733	271	508	779
GS-12……	193	911	1,104	195	917	1,112	203	922	1,125	207	967	1,174
GS-11……	89	823	912	94	801	895	99	822	921	99	839	938
GS-10……	2	7	9	2	6	8	2	7	9	2	7	9
GS-09……	83	416	499	75	422	497	83	425	508	83	428	511
GS-08……	5	257	262	7	248	255	7	257	264	7	257	264
GS-07……	82	473	555	75	566	641	82	566	648	82	566	648
GS-06……	6	241	247	8	239	247	8	241	249	8	241	249
GS-05……	4	174	178	5	184	189	5	184	189	5	184	189
GS-04……	9	28	37	6	33	39	9	33	42	9	33	42
GS-03……	3	4	7	-	16	16	-	16	16	-	16	16
GS-02……	-	1	1	-	1	1	-	1	1	-	1	1
Other Graded Positions.....	21	116	137	19	138	157	21	138	159	21	138	159
Total Perm. Employment EOY.....	1,157	4,238	5,395	1,155	4,365	5,520	1,196	4,413	5,609	1,204	4,539	5,743
Unfilled Positions EOY.....	34	119	153	25	88	113	23	80	103	18	65	83
Total Permanent Positions.....	1,191	4,357	5,548	1,180	4,453	5,633	1,219	4,493	5,712	1,222	4,604	5,826
Staff Year Estimate.....	1,384	5,727	7,111	1,408	5,825	7,233	1,563	6,470	8,033	1,525	6,314	7,839

Size and Composition of Agency Motor Vehicle and Aircraft Fleet

1. Size, Composition, and Cost of Motor Vehicle Fleet

APHIS uses vehicles to deliver mission critical services. The Agency's veterinarians, animal health technicians, inspectors, plant protection and quarantine officers, wildlife biologists, and other technical personnel use motor vehicles in their daily responsibilities, which entail travel between inspection sites, farms, ranches, ports, nurseries, and other commercial firms. In some cases, APHIS' cooperators use Agency vehicles as authorized in program cooperative agreements.

In many instances, using Government-Owned Vehicles is more cost effective than either leasing or using privately-owned vehicles. The U.S. Department of Agriculture's Strategic Sourcing Initiative goal is to acquire vehicles through the best channel (lease vs. owned) and right-size the fleet inventory. To maximize the life span of vehicles, operators are required to keep historical maintenance records and submit the vehicles' operational and cost data for review and reporting at least once a year. Periodic maintenance surveys and reviews of consolidated vehicle fleet data ensure optimal use of each vehicle in the fleet.

Replacement criteria. APHIS replaces vehicles in accordance with Title 41, CFR § 102–34.280. Agency programs replace and retire vehicles using data on utilization, age, condition, and funding availability. APHIS has implemented efforts to both increase the number of alternative fuel vehicles and extend the life cycle of each vehicle.

Reductions to the motor vehicle fleet. During FY 2015, APHIS supported the highly pathogenic avian influenza (HPAI) emergency, which increased the leased fleet by 80 vehicles. The reduction in APHIS-owned vehicles, coupled with the HPAI leased fleet, resulted in a net increase of only 10 vehicles in the fleet. Until the HPAI emergency is abated, we will not be able to reduce the fleet any further.

Planned changes to the motor vehicle fleet. For FY 2017, APHIS' fleet will remain at the FY 2016 level; however, APHIS will replace approximately 900 owned vehicles with leased vehicles in accordance with the USDA Strategic Sourcing Initiative. Within the FY 2016 level, the Agency expects to reduce the number of light duty vans by 2, and increase the number of medium duty trucks/vans/sports utility vehicles by 2.

Replacement of passenger motor vehicles. For FY 2017, the Agency proposes replacing 5 of the 290 vehicles currently in the Agency fleet that APHIS' technical personnel use in the field. Vehicles designated for disposal meet the General Service Administration's (GSA's) standards for replacement by having mileage of 60,000 or more, or by being three years of age or older.

Process Improvements. In FY 2015, APHIS implemented a new fleet management system, resulting in increased accuracy of its reporting.

Impediments to managing the motor vehicle fleet. Currently there are no impediments to APHIS being able to manage its motor vehicle fleet.

Size, Composition, and Annual Operating Costs of Vehicle Fleet

Fiscal Year	Number of Vehicles by Type*									Annual Operating Costs ($ in 000)
	Passenger Motor Vehicles (e.g. Sedans & Station Wagons)	Light Duty Vehicles				Medium Duty Vehicles		Heavy Duty Vehicles	Total Number of Vehicles	
		Vans	SUVs	Trucks		Buses	Trucks, Vans and SUVs			
				4x2	4x4					
2014	300	196	1,027	356	2,268	0	494	14	4,655	15,086
Change	-10	-8	+13	+30	-70	0	+53	+2	+10	+106
2015	290	188	1,040	386	2,198	0	547	16	4,665	15,192
Change	0	-1	0	-2	+3	0	0	0	0	+432
2016	290	187	1,040	384	2,201	0	547	16	4,665	15,624
Change	0	-2	0	0	0	0	+2	0	0	+2,941
2017	290	185	1,040	384	2,201	0	549	16	4,665	18,565

* Numbers include vehicles owned by the Agency, and leased from commercial sources or GSA.

2. Size and Composition of Aircraft Fleet

APHIS uses aircraft to conduct aerial resource and surveillance surveys, aerial application tests, methods development and testing, and equipment demonstration and testing; control and/or eradicate destructive plant pests to keep them from attacking agricultural crops; and alleviate or control wildlife damage to agricultural products.

The Appropriations Act provides APHIS with authority to replace up to five aircraft of which two shall be for replacement; the Agency replaces aircraft when necessary to maintain fleet safety and efficient operating conditions.

The APHIS aircraft fleet consists of 7 operable aircraft for domestic plant pest and disease management programs, and 61 aircraft used for the wildlife damage management programs. Of the 61 aircraft used for the wildlife damage management programs: 52 are owned, 5 are borrowed from State cooperators, and 4 are rented. Of the 52 owned aircraft, 11 of them are non-operational. APHIS uses the non-operational aircraft for parts and plans to dispose of 2 fixed-wing aircraft in FY 2016.

Congress provided $8 million in FY 2016 that APHIS intends to use to increase our operational aircraft fleet that support activities related to wildlife services.

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Salaries and Expenses:

For necessary expenses of the Animal and Plant Health Inspection Service, including up to $30,000 for representation allowances and for expenses pursuant to the Foreign Service Act of 1980 (22 U.S.C. 4085), [$894,415,000],$901,196,000, of which [$470,000]$476,000, to remain available until expended, shall be available for the control of outbreaks of insects, plant diseases, animal diseases and for control of pest animals and birds ("contingency fund") to the extent necessary to meet emergency conditions; of which [$11,520,000]$8,270,000, to remain available until expended, shall be used for the cotton pests program for cost share purposes or for debt retirement for active eradication zones; of which [$35,339,000,]$36,941,000 to remain available until expended, shall be for Animal Health Technical Services; of which [$697,000]$705,000 shall be for activities under the authority of the Horse Protection Act of 1970, as amended (15 U.S.C. 1831); of which [$55,340,000]$55,597,000, to remain available until expended, shall be used to support avian health; of which $4,251,000, to remain available until expended, shall be for information technology infrastructure; of which [$158,000,000]$146,076,000, to remain available until expended, shall be for specialty crop pests; of which, [$8,826,000]$8,902,000, to remain available until expended, shall be for field crop and rangeland ecosystem pests; of which [$54,000,000]$45,933,000, to remain available until expended, shall be for tree and wood pests; of which [$3,973,000]$5,723,000, to remain available until expended, shall be for the National Veterinary Stockpile; of which $5,973,000, to remain available until expended, shall be for the implementation of the Lacey Act (16 U.S.C. 3371–3378); of which up to $1,500,000, to remain available until expended, shall be for the scrapie program for indemnities; of which $2,500,000, to remain available until expended, shall be for the wildlife damage management program for aviation safety: *Provided*, That of amounts available under this heading for wildlife services methods development, $1,000,000 shall remain available until expended: *Provided further*, That of amounts available under this heading for the screwworm program, $4,990,000 shall remain available until expended: *Provided further,* That no funds shall be used to formulate or administer a brucellosis eradication program for the current fiscal year that does not require minimum matching by the States of at least 40 percent: *Provided further*, That this appropriation shall be available for the operation and maintenance of aircraft and the purchase of not to exceed five, of which two shall be for replacement only: *Provided further*, That in addition, in emergencies which threaten any segment of the agricultural production industry of this country, the Secretary may transfer from other appropriations or funds available to the agencies or corporations of the Department such sums as may be deemed necessary, to be available only in such emergencies for the arrest and eradication of contagious or infectious disease or pests of animals, poultry, or plants, and for expenses in accordance with sections 10411 and 10417 of the Animal Health Protection Act (7 U.S.C. 8310 and 8316) and sections 431 and 442 of the Plant Protection Act (7 U.S.C. 7751 and 7772), and any unexpended balances of funds transferred for such emergency purposes in the preceding fiscal year shall be merged with such transferred amounts: *Provided further*, That appropriations hereunder shall be available pursuant to law (7 U.S.C. 2250) for the repair and alteration of leased buildings and improvements, but unless otherwise provided the cost of altering any one building during the fiscal year shall not exceed 10 percent of the current replacement value of the building.

In fiscal year [2016]2017, the agency is authorized to collect fees to cover the total costs of providing technical assistance, goods, or services requested by States, other political subdivisions, domestic and international organizations, foreign governments, or individuals, provided that such fees are structured such that any entity's liability for such fees is reasonably based on the technical assistance, goods, or services provided to the entity by the agency, and such fees shall be reimbursed to this account, to remain available until expended, without further appropriation, for providing such assistance, goods, or services.

Salaries and Expenses

Lead-off Tabular Statement
Current Law

Budget Estimate, 2017	$901,196,000
2016 Enacted	894,415,000
Change in Appropriation	6,781,000

Summary Of Increases and Decreases - Current Law
(Dollars in thousands)

	2014 Actual	2015 Change	2016 Change	2017 Change	2017 Estimate
Discretionary Appropriations:					
Safeguarding and Emergency Preparedness/Response					
Animal Health Technical Services	$35,339	-	-	+$1,602	$36,941
Aquatic Animal Health	2,253	-	-	+29	2,282
Avian Health	52,340	-	+3,000	+257	55,597
Cattle Health	92,500	-	-1,000	+715	92,215
Equine, Cervid & Small Ruminant Health	19,500	-	-	+158	19,658
National Veterinary Stockpile	3,722	+251	-	+1,750	5,723
Swine Health	22,250	+2,000	+550	+171	24,971
Veterinary Biologics	16,417	-	-	+143	16,560
Veterinary Diagnostics	31,540	-	+5,000	-4,697	31,843
Zoonotic Disease Management	9,523	-	-	+10,000	19,523
Subtotal, Animal Health	285,384	+2,251	+7,550	+10,128	305,313
Agricultural Quarantine Inspection (Appropriated)	26,900	-	+1,000	+1,927	29,827
Cotton Pests	12,720	-1,200	-	-3,250	8,270
Field Crop & Rangeland Ecosystems Pests	8,826	-	-	+76	8,902
Pest Detection	27,446	-	-	+190	27,636
Plant Protection Methods Development a/	20,549	+137	-	+184	20,870
Specialty Crop Pests	151,500	+4,500	+2,000	-11,924	146,076
Tree & Wood Pests a/	58,000	-4,000	-	-8,067	45,933
Subtotal, Plant Health	305,941	-563	+3,000	-20,864	287,514
Wildlife Damage Management	87,428	+2,599	+11,150	-15,258	85,919
Wildlife Services Methods Development	18,856	-	-	+214	19,070
Subtotal, Wildlife Services	106,284	+2,599	+11,150	-15,044	104,989
Animal & Plant Health Regulatory Enforcement	16,224	-	-	+186	16,410
Biotechnology Regulatory Services	18,135	+740	-	+121	18,996
Subtotal, Regulatory Services	34,359	+740	-	+307	35,406
Contingency Fund	470	-	-	+6	476
Emergency Preparedness & Response	16,966	-	-	+27,189	44,155
Subtotal, Emergency Management	17,436	-	-	+27,195	44,631
Subtotal Safeguarding and Emergency Preparedness/Response	749,404	+5,027	+21,700	+1,722	777,853

	2014 Actual	2015 Change	2016 Change	2017 Change	2017 Estimate
Safe Trade and International Technical Assistance					
Agriculture Import/Export	14,099	-	+1,000	+4,652	19,751
Overseas Technical & Trade Operations	20,114	+2,000	-	+113	22,227
Subtotal Safe Trade and International Technical Assistance	34,213	+2,000	+1,000	+4,765	41,978
Animal Welfare					
Animal Welfare	28,010	-	+400	+286	28,696
Horse Protection	697	-	-	+8	705
Subtotal, Animal Welfare	28,707	-	+400	+294	29,401
Agency Wide Programs					
APHIS Information Technology Infrastructure	4,251	-	-	-	4,251
Physical/Operational Security	5,146	-	-	-	5,146
Rental and DHS Security Payments	-	+42,567	-	-	42,567
Subtotal, Agency Management	9,397	+42,567	-	-	51,964
General Provision 748 b/	20,000	-20,000	-	-	-
General Provision 764 c/	-	-	+5,500	-5,500	-
Total, Discretionary Appropriation	841,721	+29,594	+28,600	+1,281	901,196

a/ Reflects reprogramming of National Clean Plant Network appropriated discretionary funds in FY 2014 to Tree and Wood Pests for ALB efforts.

b/ The FY 2014 General Provision 748 provides $20 million in one-time funding for control, management and associated activities directly related to the multiple-agency response to citrus greening. Funds were available until September 30, 2015.

c/ The FY 2016 General Provision 764 provides $5.5 million to remain available until September 30, 2017, for one-time control and management and associated activities directly related to the multiple-agency response to citrus greening.

Salaries and Expenses

Project Statement
Appropriations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	2014 Actual		2015 Actual		2016 Estimate		Inc. or Dec.			2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount		SYs	Amount	SYs
Discretionary Appropriations:											
Safeguarding and Emergency Preparedness/Response											
Animal Health Technical Services	$35,339	64	$35,339	64	$35,339	64	+$1,602	1a	+92	$36,941	156
Aquatic Animal Health	2,253	22	2,253	22	2,253	22	+29	1b	-9	2,282	13
Avian Health	52,340	196	52,340	196	55,340	196	+257	1c	+51	55,597	247
Cattle Health	92,500	555	92,500	555	91,500	551	+715	1d	-78	92,215	473
Equine, Cervid & Small Ruminant Health	19,500	120	19,500	120	19,500	120	+158	1e	-	19,658	120
National Veterinary Stockpile	3,722	1	3,973	1	3,973	1	+1,750	1f	+6	5,723	7
Swine Health	22,250	120	24,250	128	24,800	130	+171	1g	+16	24,971	146
Veterinary Biologics	16,417	109	16,417	109	16,417	109	+143	1h	-8	16,560	101
Veterinary Diagnostics	31,540	190	31,540	190	36,540	190	-4,697	1i	-39	31,843	151
Zoonotic Disease Management	9,523	45	9,523	45	9,523	45	+10,000	1j	+19	19,523	64
Subtotal, Animal Health	285,384	1,422	287,635	1,430	295,185	1,428	+10,128		+50	305,313	1,478
Agricultural Quarantine Inspection (Appropriated)	26,900	360	26,900	360	27,900	369	+1,927	1k	+3	29,827	372
Cotton Pests	12,720	58	11,520	58	11,520	58	-3,250	1l	-7	8,270	51
Field Crop & Rangeland Ecosystems Pests	8,826	58	8,826	58	8,826	58	+76	1m	+19	8,902	77
Pest Detection	27,446	145	27,446	145	27,446	145	+190	1n	+45	27,636	190
Plant Protection Methods Development	20,549	141	20,686	141	20,686	141	+184	1o	-10	20,870	131
Specialty Crop Pests	151,500	688	156,000	688	158,000	688	-11,924	1p	+30	146,076	718
Tree & Wood Pests	58,000	319	54,000	319	54,000	319	-8,067	1q	-18	45,933	301
Subtotal, Plant Health	305,941	1,769	305,378	1,769	308,378	1,778	-20,864		+62	287,514	1,840
Wildlife Damage Management	87,428	620	90,027	620	101,177	628	-15,258	1r	-70	85,919	558
Wildlife Services Methods Development	18,856	163	18,856	163	18,856	163	+214	1s	-38	19,070	125
Subtotal, Wildlife Services	106,284	783	108,883	783	120,033	791	-15,044		-108	104,989	683
Animal & Plant Health Regulatory Enforcement	16,224	142	16,224	142	16,224	142	+186	1t	-26	16,410	116
Biotechnology Regulatory Services	18,135	92	18,875	92	18,875	92	+121	1u	+4	18,996	96
Subtotal, Regulatory Services	34,359	234	35,099	234	35,099	234	+307		-22	35,406	212
Contingency Fund	470	5	470	5	470	5	+6	1v	-	476	5
Emergency Preparedness & Response	16,966	90	16,966	90	16,966	90	+27,189	1w	+117	44,155	207
Subtotal, Emergency Management	17,436	95	17,436	95	17,436	95	+27,195		+117	44,631	212
Subtotal Safeguarding and Emergency Preparedness/Response	749,404	4,303	754,431	4,311	776,131	4,326	+1,722		+99	777,853	4,425
Safe Trade and International Technical Assistance											
Agriculture Import/Export	14,099	92	14,099	92	15,099	94	+4,652	2a	-10	19,751	84
Overseas Technical & Trade Operations	20,114	76	22,114	86	22,114	86	+113	2b	-31	22,227	55
Subtotal Safe Trade and International Technical Assistance	34,213	168	36,213	178	37,213	180	+4,765		-41	41,978	139
Animal Welfare											
Animal Welfare	28,010	218	28,010	218	28,410	220	+286	3a	+12	28,696	232
Horse Protection	697	6	697	6	697	6	+8	3b	-	705	6
Subtotal, Animal Welfare	28,707	224	28,707	224	29,107	226	+294		+12	29,401	238
Agency-Wide Programs											
APHIS Information Technology Infrastructure	4,251	-	4,251	-	4,251	-	-	4a	-	4,251	-
Physical/Operational Security	5,146	-	5,146	-	5,146	-	-	4b	+5	5,146	5
Decentralized GSA Rental and DHS Security Payments	-	-	42,567	-	42,567	-	-	4c	-	42,567	-
Subtotal, Agency Management	9,397	-	51,964	-	51,964	-	-		+5	51,964	5
Subtotal, Appropriated	821,721	4,695	871,315	4,713	894,415	4,732	+6,781		+75	901,196	4,807

Program	2014 Actual		2015 Actual		2016 Estimate		Inc. or Dec.		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
General Provision 748	20,000	-	-	-	-	-	-	-	-	-
General Provision 764	-	-	-	-	5,500		-5,500	-	-	-
Subtotal, Discretionary Appropriated	841,721	4,695	871,315	4,713	899,915	4,732	+1,281	+75	901,196	4,807
Authority from Offsetting collections	198,803	1,500	187,990	1,509	187,686	1,685	+564	-	188,250	1,685
Sequester Restored…Offsetting Collections	900	-	-	-	-	-	-	-	-	-
Subtotal, Offsetting Collections	199,703	1,500	187,990	1,509	187,686	1,685	+564	-	188,250	1,685
Mandatory Funding:										
Farm Bill, Section 10007	62,500	15	62,500	15	62,500	15	-	-	62,500	15
Sequester P.L. 113-6…Farm Bill	-3,600	-	-4,563	-	-4,250	-	+4,250	-	-	-
Subtotal, Farm Bill	58,900	15	57,937	15	58,250	15	+4,250	-	62,500	15
Trust Funds	8,618	50	8,140	50	9,000	50	-	-	9,000	50
Sequester Restored P.L. 113-6…Trust Funds	95	-	95	-	-	-	-	-	-	-
Foreign Service National Separation Liability Trust	-	-	673	-	500	-	-	-	500	-
Agricultural Quarantine Inspection User Fees:										
Total Collections	603,369	1,250	636,047	1,250	727,200	1,250	+26,700	-	753,900	1,250
Less: Transfer to DHS	-362,526	-	-467,463	-	-515,810	-	-18,705	-	-534,515	-
Sequester P.L. 113-6 ...AQI	-42,806	-	-44,849	-	-49,450	-	+49,450	-	-	-
Sequester Restored ...AQI	27,510	-	42,806		44,849	-	-44,849	-	-	-
AQI User Fees (APHIS)	225,548	1,250	166,541	1,250	206,789	1,250	+12,596	-	219,385	1,250
Subtotal, Mandatory Funding	293,161	1,315	233,387	1,315	274,539	1,315	+16,846	-	291,385	1,315
Total Appropriations	1,334,584	7,510	1,292,691	7,537	1,362,140	7,732	+18,692	+75	1,380,831	7,807
Transfers In:										
CCC	20,897	-	1,006,916	543	-	-	-	-	-	-
Departmental	102	-	102	-	-	-	-	-	-	-
Transfers Out:										
Working Capital Fund	-1,500	-	-	-	-	-	-	-	-	-
Subtotal, Transfers	19,499	-	1,007,018	543	-	-	-	-	-	-
Balance Available, SOY	406,476	211	491,031	330	590,774	792	-112,518	-301	478,256	491
Sequester P.L. 113-6 …Trust Funds	-95	-	-96	-	-89	-	+89	-	-	-
Recoveries Trust Funds	168	-	229	-	-	-	-	-	-	-
Recoveries	13,919	-	14,251	-	-	-	-	-	-	-
Total Available	1,774,552	7,721	2,805,124	8,410	1,952,826	8,524	-93,738	-226	1,859,087	8,298
Lapsing Balances	-15,011	-280	-21,624	-385	-	-	-	-	-	-
Balance Available, EOY	-491,031	-330	-590,774	-792	-478,256	-491	+36,135	+32	-442,121	-459
Total Obligations	1,268,510	7,111	2,192,726	7,233	1,474,570	8,033	-57,603	-194	1,416,966	7,839

Salaries and Expenses

Project Statement
Obligations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	2014 Actual		2015 Actual		2016 Enacted		Inc. or Dec.			2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount		SYs	Amount	SYs
Discretionary Obligations:											
Safeguarding and Emergency Preparedness/Response											
Animal Health Technical Services	$34,507	64	$34,290	64	$35,250	64	+2,116	1a	+92	$37,365	156
Aquatic Animal Health	2,185	21	2,201	21	2,253	22	+29	1b	-9	2,282	13
Avian Health	50,252	185	60,041	225	53,340	201	+257	1c	+46	53,597	247
Cattle Health	90,716	509	90,423	488	91,500	551	+715	1d	-78	92,215	473
Equine, Cervid & Small Ruminant Health	20,392	120	20,817	114	19,300	120	-410	1e	-	18,890	120
National Veterinary Stockpile	3,214	2	3,121	2	4,414	3	+2,309	1f	+4	6,723	7
Swine Health	22,046	120	24,244	128	24,800	130	+171	1g	+16	24,971	146
Veterinary Biologics	16,243	102	16,398	92	16,417	109	+143	1h	-8	16,560	101
Veterinary Diagnostics	31,540	183	31,519	173	36,540	190	-4,697	1i	-39	31,843	151
Zoonotic Disease Management	9,462	43	9,516	43	9,523	45	+10,000	1j	+19	19,523	64
Subtotal, Animal Health	280,557	1,349	292,571	1,350	293,336	1,435	+10,634		+43	303,970	1,478
Agricultural Quarantine Inspection (Appropriated)	26,712	356	26,850	356	27,900	369	+1,927	1k	+3	29,827	372
Cotton Pests	12,286	58	12,071	58	13,500	61	-4,930	1l	-10	8,570	51
Field Crop & Rangeland Ecosystems Pests	8,694	56	9,169	61	9,311	60	+91	1m	+17	9,402	77
Pest Detection	27,256	143	26,446	143	27,446	145	+190	1n	+45	27,636	190
Plant Protection Methods Development	20,166	131	20,685	131	20,686	141	+184	1o	-10	20,870	131
Specialty Crop Pests	143,984	634	163,447	631	158,000	688	-3,924	1p	+30	154,076	718
Tree & Wood Pests	70,080	294	55,061	259	54,000	319	-7,467	1q	-18	46,533	301
Subtotal, Plant Health	309,179	1,672	313,730	1,639	310,843	1,783	-13,929		+57	296,914	1,840
Wildlife Damage Management	86,893	550	89,991	543	101,075	628	-15,156	1r	-70	85,919	558
Wildlife Services Methods Development	18,742	153	18,825	143	18,856	163	+214	1s	-38	19,070	125
Subtotal, Wildlife Services	105,635	703	108,816	686	119,931	791	-14,942		-108	104,989	683
Animal & Plant Health Regulatory Enforcement	16,102	138	16,218	126	16,224	142	+186	1t	-26	16,410	116
Biotechnology Regulatory Services	16,864	90	18,831	88	18,875	92	+121	1u	+4	18,996	96
Subtotal, Regulatory Services	32,967	228	35,049	214	35,099	234	+307		-22	35,406	212
Contingency Fund	-	-	2,379	15	2,000	5	-1,250	1v	-4	750	1
Emergency Preparedness & Response	16,813	90	16,889	90	16,966	90	+27,189	1w	+117	44,155	207
Subtotal, Emergency Management	16,813	90	19,268	105	18,966	95	+25,939		+113	44,905	208
Subtotal Safeguarding and Emergency Preparedness/Response	745,151	4,042	769,435	3,994	778,176	4,338	+8,008		+83	786,184	4,421
Safe Trade and International Technical Assistance											
Agriculture Import/Export	13,992	90	13,999	87	15,099	94	+4,652	2a	-10	19,751	84
Overseas Technical & Trade Operations	20,052	66	21,977	60	22,114	86	+113	2b	-31	22,227	55
Subtotal Safe Trade and International Technical Assistance	34,044	156	35,975	147	37,213	180	+4,765		-41	41,978	139
Animal Welfare											
Animal Welfare	27,903	209	28,009	202	28,410	220	+286	3a	+12	28,696	232
Horse Protection	687	6	681	6	697	6	+8	3b	-	705	6
Subtotal, Animal Welfare	28,590	215	28,690	208	29,107	226	+294		+12	29,401	238
Agency-Wide Programs											
APHIS Information Technology Infrastructure	4,182	-	3,944	-	4,600	-	-269	4a	-	4,331	-
Physical/Operational Security	5,133	-	5,146	-	5,146	-	-	4b	+5	5,146	5
Decentralized GSA Rental and DHS Security Payments	-	-	42,567	-	42,567	-	-	4c	-	42,567	-
Subtotal, Agency Management	9,316	-	51,657	-	52,313	-	-269		+5	52,044	5
General Provision 748	4,260	-	15,738	-	-	-	-		-	-	-
General Provision 764	-	-	-	-	1,000	-	+3,500		-	4,500	-
Subtotal, Discretionary	821,361	4,413	901,495	4,349	897,809	4,744	+16,298		+59	914,107	4,803

Program	2014 Actual		2015 Actual		2016 Enacted		Inc. or Dec.		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Mandatory Obligations:										
Agricultural Quarantine Inspection User Fees	193,890	1,121	199,283	1,138	210,000	1,250	+2,000	-	212,000	1,250
Farm Bill	57,286	15	57,657	15	58,327	15	+4,173	-	62,500	15
Trust Funds	7,807	29	10,352	27	9,000	50	-	-	9,000	50
Foreign Service National Separation Liability Trust	-	-	673	-	500	-	-	-	500	-
Subtotal, Mandatory	258,984	1,165	267,965	1,180	277,827	1,315	+6,173	-	284,000	1,315
Other Obligations:										
CCC	12,947	-	838,501	96	114,537	350	-79,050	-253	35,488	97
Obligations from Offsetting collections	169,301	1,533	180,969	1,608	181,190	1,624	+181	-	181,371	1,624
Homeland Security, HUB Relo, & Department	128	-	102	-	-	-	-	-	-	-
H1N1	4,741	-	2,830	-	3,207	-	-1,207	-	2,000	-
Refunds for equipment sold	1,047	-	864	-	-	-	-	-	-	-
Subtotal, Other	188,165	1,533	1,023,266	1,704	298,934	1,974	-80,075	-253	218,859	1,721
Total, Obligations	1,268,510	7,111	2,192,726	7,233	1,474,570	8,033	-57,605	-194	1,416,966	7,839
Lapsing Balances	15,011	355	21,624	385	-	-	-	-		
Balance Available, EOY	491,031	255	590,774	792	478,256	491	-36,135	-32	442,121	459
Total, Available	1,774,552	7,721	2,805,124	8,410	1,952,826	8,524	-93,740	-226	1,859,087	8,298
Transfers In:										
CCC	-20,897	-	-1,006,916	-543	-	-	-	-	-	-
Departmental	-102	-	-102	-	-	-	-	-	-	-
Transfers Out:										
Working Capital Fund	1,500	-	-	-	-	-	-	-	-	-
Sequester P.L. 113-6	95	-	96	-	89	-	-89	-	-	-
Balance Available, SOY	-406,476	-211	-491,031	-330	-590,775	-792	+112,519	+301	-478,256	-491
Recoveries: Other (Net)	-14,087	-	-14,480	-	-	-	-	-		
Total, Appropriation	1,334,584	7,510	1,292,691	7,537	1,362,140	7,732	+18,691	+75	1,380,831	7,807

Justification of Increases and Decreases
Salaries and Expenses

A large portion of APHIS' budget is in support of personnel compensation. The request includes a total of $7,245,000 to cover increases in pay for associated employees including $1,519,300 to cover the annualization of the 1.3 percent 2016 pay increase and $5,725,700 is for the 1.6 percent increase in 2017. Of the total cost, $6,174,000 is requested in the budget and $1,071,000 will be absorbed by the programs.

APHIS is requesting to redistribute staff years. We conducted an analysis of data from the financial and personnel systems since 2012, when the Agency transitioned to a new budget structure and converted to a financial system that provides greater levels of detailed spending. The staff year shifts in each program are reflective of this analysis and better align the workload with each of our programs/projects/activities appropriated by Congress. Please note that there are also staff year changes proposed as a result of requested budgetary changes.

(1) A net increase of $1,722,000 and a net increase of 99 staff years for Safeguarding and Emergency Preparedness/Response:

A net increase of $10,128,000 and a net increase of 50 staff years for Safeguarding and Emergency Preparedness/Response - Animal Health.

(a) An increase of $1,602,000 and 92 staff years for Animal Health Technical Services program ($35,339,000 and 64 staff years available in 2016).

APHIS' Animal Health Technical Services (AHTS) program enhances the tools available for acquiring and managing information vital for maintaining and improving global market access. Incorporating national surveillance data standards into data management applications enables animal health information, which Federal, State, Tribal, and private individuals enter in multiple systems, to be compiled nationally, thus leveraging the work of animal health professionals nationwide to meet local, State and national veterinary health objectives. Private veterinarians trained and accredited by APHIS help producers meet export requirements and disease program standards, allowing U.S. animals and animal products to compete in the global economy. Disease transmission and spread models, developed and shared by the Agency, allow improved planning and management of animal health incidents.

The national Animal Disease Traceability (ADT) framework allows Federal, State, Local, Tribal, and private animal health professionals to work together to identify diseased animals in a timely manner, quickly trace their movements, and control disease spread to protect the U.S. livestock industry, whose production value was approximately $85 billion in 2014 (National Agricultural Statistics Service, USDA). Knowing where diseased and at-risk animals are located helps preserve animal health, reduce animal illnesses and deaths if outbreaks occur; ensure a rapid response to an animal disease event; and decrease the cost to producers, consumers, and the government. Such a system assures our trading partners that USDA is committed and able to rapidly contain an animal disease event. This program continues to progress toward developing a traceability system that is effective, flexible, and increases the timeliness of retrieving traceability data. Each year, APHIS provides cooperative agreement funds to States to help them establish and maintain their own ADT plans. All States receiving these funds now have ADT strategic plans in place, compared with 89 percent at the end of FY 2014. In addition, the Agency is working with States and industries to increase the availability of electronic interstate certificates of veterinary inspection (ICVI), which are the primary documents used to obtain animal movement information. This practice minimizes the regulatory burden on producers when they ship livestock to other States. ICVIs are easier to search than paper documents and increase the efficiency of animal health officials. This program continues to progress toward developing a system that is effective, flexible, and increases the timeliness of retrieving traceability data.

The AHTS program develops new information management systems, and maintains and improves existing data systems and applications. These systems are vital for national animal health surveillance and response activities. APHIS makes these systems available to States and Tribal Nations, who use them to support their ADT plans and other animal health activities. The AHTS program has fully adopted a national animal health surveillance system, known as Surveillance Collaboration Services. This system allows quicker development of meaningful functionality and consolidation of information technology systems, thereby increasing data efficiency and providing a streamlined national approach. The software is available for State and Federal animal health officials nationwide. This system has enhanced communication and data accuracy and availability, and has created significant lifecycle and maintenance efficiencies. This project also provided the ability to retire several legacy IT systems. Efficient data integration has become vital due to the number of data sources from several partners, IT systems, and locations. A few highlights of other activities in FY 2015 are as follows.

- The program increased data records by 13 percent to a new total of approximately 724 million.
- The program implemented the Laboratory Threshold Engine, a module that provides for a rules-driven, real-time answer to the question, "should these samples be collected and tested?" based on epidemiologically established surveillance thresholds. The module prevents expensive over-collection/sampling of test samples.
- The program deployed IBM Cognos Query Studio to allow for ad-hoc reporting. The tool provides the ability for epidemiologists to custom design reports from SCS data marts. Advanced filtering, sorting, and crosstab capabilities allows users to further peer into their data.

More than 65,000 highly-trained accredited veterinarians act as the first line of defense for reportable domestic and foreign animal diseases. The voluntary National Veterinary Accreditation Program (NVAP) authorizes private veterinary practitioners to work cooperatively with Federal veterinarians and State animal health officials to report these diseases when they are suspected. This provides the first step in rapid diagnosis, quarantine, and other control measures to safeguard U.S. animal and human health. Accredited veterinarians also provide official animal, flock, and herd health certifications, disease testing, and traceability practices for millions of animals each year. Through the NVAP, APHIS leverages the medical expertise and community relationships of private veterinarians to deliver vital Federally-regulated animal health services to protect animal and public health. In addition, USDA-accredited veterinarians certify exports to facilitate international market access for a rapidly growing number of U.S. producers. APHIS has integrated formal NVAP training into the curriculum of all U.S. veterinary schools, building knowledge among new veterinary professionals. The Agency develops and uses models to gain understanding of historical events, estimate consequences, and inform strategic, logistical, and budgetary decisions by evaluating varying interventions. APHIS uses these models for contingency planning, evaluates control strategies, estimates consequences of disease introduction and spread, designs surveillance and control programs, and prioritizes interventions and supporting resource management and allocation. Among other activities conducted in FY 2015, APHIS analyzed the highly pathogenic avian influenza outbreak, examining mechanisms of disease spread and economic impacts of the outbreak as well as comparing alternative control strategies such as improved detection of disease, increased biosecurity measures, and vaccination in the event of future outbreaks.

Overall, approximately 50 percent of the program's funding supports salaries and benefits of personnel, 20 percent funds contracts and agreements, 16 percent funds major IT system costs, and the remainder supports normal operating costs such as travel, supplies, rent, and utilities.

National Select Agent Registry (NSAR) Database (+$1.518 million)

The Select Agents program provides oversight of registered entities that possess, use, or transfer select agents and toxins, and ensures the safe and secure importation and interstate transport of all other animal pathogens. The Agency will enhance this program by increasing support for development and maintenance of the NSAR database, which was established by the Center for Disease Control and Prevention (CDC), and used by APHIS. This database contains all the statutory required information for registered entities to possess, use, or transfer select agents and toxins, including the names of persons, location, and identification of the select agents that are possessed, used, or transferred by the registered entities. APHIS

and the CDC jointly fund the development and maintenance of the database. Although APHIS' annual share for maintaining the database is $1.4 million, additional funding will be needed in FY 2017 to further develop and enhance the system. The database can no longer be updated based on current technologies to provide the features required by the program. The system improvements will allow the program to have a more modern system of data maintenance and make the information available on registered entities closer to real-time. The new database platform will be known as eNSAR. It will be more efficient and user-friendly, and allow stakeholders to submit entity information electronically (currently, only paper submissions are possible).

Pay (+$99,000)

The request includes a total of $99,000 to cover increases in pay for associated employees, of which $21,000 is for the annualization of the 1.3 percent 2016 pay increase and $78,000 is for the 1.6 percent increase in 2017.

Program reduction (-$15,000)
Operating costs for the program will be reduced by $15,000.

Staff year redistribution (+92)

The request includes an increase of 92 staff years.

(b) An increase of $29,000 and a decrease of 9 staff years for the Aquatic Animal Health program ($2,253,000 and 22 staff years available in 2016).

The Aquatic Animal Health program safeguards the health of farm-raised aquatic animals and supports U.S. aquaculture industries by facilitating and leveraging domestic and international trade. This program protects the animal health of the U.S. aquaculture industry, valued at $1.4 billion in 2013 (National Agricultural Statistics Service, 2013 Census of Aquaculture). This program carries out activities consistent with the National Aquatic Animal Health Plan (NAAHP) by providing national coordination, surveillance, and testing for high-consequence aquatic animal diseases. The NAAHP is a set of principles and recommendations for protecting the health of our nation's farmed and wild aquatic animal resources. APHIS, the National Oceanic and Atmospheric Administration (NOAA), and the U.S. Fish and Wildlife Service (FWS) are responsible for overseeing aquatic animal health. These agencies developed and signed the NAAHP with input from key stakeholders, including the National Aquaculture Association and several State agencies involved with aquaculture. These agencies are working with industry to prioritize NAAHP elements and develop an implementation plan for related activities to meet the plan's objectives.

This program relies heavily on collaborations with other agencies to protect the health and value of aquatic animals. In FY 2015, APHIS worked with the National Aquaculture Association to continue developing Commercial Aquaculture Health Program Standards (CAHPS). This voluntary, non-regulatory effort will help position commercial producers in domestic and international trade markets, and help the commercial aquaculture industry demonstrate adherence to sound practices for aquatic animal health. Also in FY 2015, APHIS and the National Aquaculture Association refined CAHPS principles and concepts, and created outreach and focus groups to gather stakeholder input that will inform further refinement and development of the standards. In addition, APHIS continued working with the Virginia Institute of Marine Sciences, the Rutgers University Haskins Shellfish Research Laboratories, the New Jersey Sea Grant Consortium, and the Virginia Sea Grant to address disease-related impediments to shellfish commerce in the eastern United States. The entities established key working groups to develop and pilot select solutions (e.g., hatchery certification standards, regional database, and a regional advisory board) from commercial, regulatory, and pathology/scientific community perspectives.

The Aquatic Animal Health program is following a 5-year business plan, which was developed in FY 2014, to outline priorities, objectives, strategies, and field activities. This plan is a critical tool for guiding the Agency's spending and collaborations with stakeholders to strategically prioritize and plan for program

needs. Overall, the program improves preparedness, surveillance, and response to aquatic animal health issues, and reduces the likelihood of disease spread resulting in larger and more serious disease outbreaks. APHIS will continue these activities in FY 2017.

Approximately 75 percent of the Aquatic Animal Health program funding supports salaries and benefits, less than 5 percent is for cooperative agreements and programmatic contracts, and the remaining funding supports normal operating costs such as travel, supplies, and rent, and utilities.

Pay (+$34,000)

The request includes $34,000 to cover increases in pay for associated employees, of which $7,000 is for the annualization of the 1.3 percent 2016 pay increase and $27,000 is for the 1.6 percent pay increase in 2017.

Program reduction (-$5,000)
Operating costs for the program will be reduced by $5,000.

Staff year redistribution (-9)

The request includes a decrease of 9 staff years.

(c) An increase of $257,000 and 51 staff years for the Avian Health program ($55,340,000 and 196 staff years available in 2016).

The Avian Health program protects the U.S. poultry industry, valued at $48.3 billion in 2014 (USDA - National Agricultural Statistics Service) while facilitating trade in poultry and poultry products. This program consists of the avian influenza (AI) prevention and control program, the National Poultry Improvement Plan (NPIP), avian health and management studies, disease threat planning and response, comprehensive poultry disease surveillance, and zoonotic disease prevention and response. APHIS' surveillance programs detect foreign, zoonotic, and domestic diseases that could substantially impact domestic production and the economy. Surveillance information can facilitate trade and protect public health by demonstrating that certain diseases do not exist in poultry populations. The Agency also maintains regulations and national standards and guidelines that direct avian health activities at the Federal, State, and Tribal levels. Maintaining these standards supports interstate and international commerce by providing assurances regarding the health of avian species and products being moved or traded.

To address AI, APHIS works to survey, diagnose, control, and prevent the spread of H5 and H7 subtypes; improve biosecurity, sanitation, and disease control in commercial poultry, the Live Bird Marketing System (LBMS), and high-risk poultry sectors; and minimize AI effects on the U.S. LBMS and commercial poultry industry. This program particularly focuses on notifiable avian influenza (NAI), which includes all forms of highly pathogenic avian influenza (HPAI), as well as the H5 and H7 forms of low pathogenicity avian influenza. Annually, this line item funds more than two million tests in commercial poultry and more than 200,000 tests in smaller premises, such as backyard birds and the LBMS. LBMS testing is vital to prevent and control disease in markets, but also among production premises and poultry distributors that supply those markets. NAI findings are investigated or addressed to prevent low pathogenic strains from mutating into highly pathogenic strains that can devastate domestic poultry, close export markets to U.S. poultry and poultry products, and cause human disease and death. In FY 2015, APHIS worked with State officials, the U.S. Department of the Interior, and the U.S. Department of Health and Human Services to respond to multiple NAI outbreaks in the Pacific, Central, and Mississippi flyways.

APHIS' overarching HPAI Response Plan describes how Federal actions are conducted and coordinated with States and industry during an HPAI outbreak. This joint preparedness, which includes regular exercises involving State and Tribal agencies, the poultry industry, and academia, helps ensure that APHIS can respond quickly and effectively to outbreaks. Through the LBMS Program Uniform Standards, APHIS provides guidance to States on conducting surveillance for and responding to NAI in the LBMS and the farms and distributors that supply these markets. In 2015, APHIS developed a comprehensive HPAI

preparedness plan to enhance prevention efforts and guard against the possibility of expanded outbreaks in the winter of 2015 when birds migrate south from their northern breeding grounds. By working with producers, State partners, academia, and other stakeholders to identify additional means for improvement and to prepare better for additional cases, the Agency has worked to improve response capabilities to provide the most effective services possible. The request includes increases in general response line items to further preparedness than can be done within current resource levels. Maintaining confidence in the United States' ability to rapidly respond to AI in U.S. poultry is critical to manage exports of U.S. poultry and poultry products.

Internationally, USDA works with organizations such as the World Organisation for Animal Health (OIE), the Food and Agriculture Organization (FAO) of the United Nations, and the OIE/FAO Network of Expertise on AI to rapidly identify and respond to AI. APHIS provides training and support overseas to respond to AI outbreaks to prevent the disease from entering the United States, and helps foreign governments reduce the severity of these outbreaks. In addition, the Agency follows a U.S./Mexico Wildlife Disease Border Surveillance Plan, which allows cross border surveillance. APHIS also works with the USDA Foreign Agricultural Service and the U.S. Trade Representative's Office to maintain a coordinated, strategic approach to resolving avian health issues that affect U.S. exports. To open markets for U.S. poultry, APHIS negotiates protocols for the trade of poultry and related products. When markets close to certain States or regions in response to NAI detections, APHIS provides science-based rationales to reopen markets, coordinates informational exchanges, facilitates the U.S. industry's access to foreign decision-makers, and participates in negotiations. By helping countries prepare for, manage, or eradicate AI outbreaks, APHIS reduces the risk of the disease spreading from other countries to the United States.

The NPIP is a cooperative Federal-State-industry program through which diagnostic technology can be used to guard against disease incursion and enhance the marketability of poultry and poultry products. It enables the United States to certify to our trading partners that many classes of poultry originate from flocks that are monitored or are free of diseases. More than 95 percent of the commercial broiler, turkey, and egg industries and the entire commercial poultry breeding industry participate in the NPIP. In addition, the NPIP has 98 authorized laboratories with trained technicians approved to provide diagnostic testing. Every three years, the NPIP conducts a service review of all NPIP-authorized laboratories. The reviews assess aspects such as check test proficiency, technician training, laboratory protocol, and State site visits. In addition, each State conducts annual reviews of the laboratories. APHIS provides most of the funding for the NPIP through cooperative agreements with States to enhance NAI surveillance and control and to aid in the diagnosis, control, and prevention of the spread of NAI in poultry. By supporting the poultry industry's ability to market, the NPIP supports thousands of jobs in the major poultry producing States.

APHIS works with primary breeders in the United States to establish the U.S. H5/H7 AI Clean Compartment Classification (AICCC) for defined subpopulations of primary breeding turkeys, and modified AICCCs for defined subpopulations of primary egg-type breeding chickens and primary meat-type breeding chickens. These classifications are based on OIE compartmentalization guidelines. If these AICCCs become internationally recognized, they would add an option for producers to ensure uninterrupted trade in breeding establishment flocks and products in case of an AI outbreak. In addition, establishing the H5/H7 AICCC for primary breeding turkeys and modifying the existing AICCC for primary breeding egg-type chickens and meat-type chickens will give producers additional options for international trade if the compartments are internationally recognized.

To protect the U.S. poultry industries, APHIS works with local, State, Tribal, and Federal government agencies and food and agriculture industries to develop and implement AI emergency preparedness and response capability and planning. To ensure the poultry industry maintains competitiveness worldwide, it is vital to quickly detect and address endemic, emerging and foreign disease threats. To address these threats, APHIS is developing comprehensive surveillance activities to optimize sampling strategies and minimize the costs to achieve surveillance goals.

In addition, APHIS sponsors the Crisis Management Center for Animal Health at the Food and Agriculture Organization of the United Nations. This Center is an emergency response branch of FAO's Animal

Health Services that helps countries respond to and contain animal disease threats. It provides assessments, guidance, and resources to enable rapid response to animal disease outbreaks such as HPAI in countries where the United States would have difficulties placing personnel or responding bilaterally. This approach reduces the threat of disease outbreaks such as AI from becoming widespread and potentially a pandemic event. In addition, APHIS ensures that our trading partners adhere to the Sanitary and Phytosanitary rules set forth by the World Trade Organization and other relevant international standards-setting organizations.

Approximately 50 percent of the Avian Health funding will be used for salaries and benefits, 45 percent will be used for cooperative agreements and programmatic contracts. The remaining funding supports normal operating costs such as travel, supplies, rent, and utilities.

Pay (+$302,000)

The request includes a total of $302,000 to cover increases in pay for associated employees, of which $63,000 is for the annualization of the 1.3 percent 2016 pay increase and $239,000 is for the 1.6 percent increase in 2017.

Program reduction (-$45,000)
Operating costs for the program will be reduced by $45,000.

Staff year redistribution (+51)

The request includes an increase of 51 staff years.

(d) An increase of $715,000 and a decrease of 78 staff years for the Cattle Health program ($91,500,000 and 551 staff years available in 2016).

The Cattle Health program protects cattle health and improves the quality, productivity, and economic viability of the U.S. cattle industry, which was valued at $81 billion for 2014 (National Agricultural Statistics Service). The program goal is to (1) rapidly detect diseases that could significantly affect the U.S. cattle and bison population and harm the economy and human and/or environmental health, and (2) prevent the spread of newly detected, devastating diseases in the United States as well as endemic domestic cattle and bison diseases of concern. APHIS activities include surveillance and monitoring, disease prevention, and disease investigation and response actions. In addition, APHIS maintains regulations, national program standards, and guidelines that direct cattle health activities at the Federal, State, and Tribal level. Maintaining these standards is a vital Federal responsibility that supports interstate and international commerce by providing assurances about the health of animals and products being moved or traded.

Domestically, APHIS conducts surveillance and monitoring activities for diseases to protect the health of U.S. cattle and facilitate trade by demonstrating to trading partners that certain diseases do not exist in the U.S. domestic cattle and bison population. These activities are designed to quickly detect foreign, emerging, zoonotic and domestic animal diseases that could substantially impact domestic producers and the economy; erode consumer confidence in the U.S. food supply; and/or have substantial economic impact to responding State, Tribal, and Federal animal health agencies. Quickly detecting and containing devastating diseases such as foot-and-mouth disease (FMD) is vital; an article published in the Journal of Veterinary Diagnostics and Investigations estimated that losses climb from $2.3 billion if an FMD outbreak is identified at day 7 to $69 billion if the outbreak is not detected until day 22. Surveillance information verifies and documents that certain diseases do not exist in the cattle population, thus facilitating trade and protecting public health. Surveillance information on bovine spongiform encephalopathy (BSE) from the APHIS Cattle Health program has been instrumental in allowing the United States to maintain export markets for all beef, which were worth approximately $6 billion in FY 2014. APHIS, States, Tribes, and industry exchange ideas on policy and guidelines. APHIS enters into cooperative agreements with State animal health and wildlife agencies and Native American Tribes to carry out surveillance and response programs.

Internationally, APHIS conducts preventive programs to exclude exotic pests and diseases from the country. The Agency works with neighboring countries to prevent the entrance of cattle diseases such as bovine Tuberculosis (TB), FMD, BSE, and screwworm. Preventing the spread of screwworm into the United States is estimated to save approximately $53 million annually. A 1976 screwworm outbreak in Texas resulted in an estimated $113 to $150 million in losses. This translates to an estimated $474 to $629 million in 2015 dollars. Most Central American countries have now been declared screwworm-free. APHIS prevents the reestablishment of screwworm in the United States by working with Colombia, Panama, Mexico, and Central American countries to maintain a screwworm-free barrier zone in the Darien Gap, a narrow 102-mile stretch of jungle along the border of Colombia and Panama. In addition to screwworm, APHIS works cooperatively with Mexico and Central American countries to assist in the detection and control of FMD and BSE, and works through the Binational Committee with Mexico to discuss issues of mutual concern such as cattle fever tick (CFT), brucellosis, and TB. The agency also works with international trading partners to facilitate safe trade in cattle and cattle products.

APHIS has reduced the prevalence rate of bovine TB in cattle to less than 0.001 percent. APHIS' goal for FY 2017 is to maintain the number of States recognized as TB-free at 49. California is the remaining State; although the State does not currently have any affected herds there were a few detected in recent months. APHIS will promptly review a request from the State for status change once it has been received. In addition, the Agency's BSE surveillance effort is designed to detect one BSE case in one million adult cattle with 95 percent confidence. This goal exceeds the standard required by the World Organisation for Animal Health (OIE). In FY 2015, APHIS tested approximately 41,000 samples for BSE, with no new cases detected. According to the OIE, the United States has a negligible risk status for transmitting BSE. The Federal-State brucellosis eradication effort has eradicated bovine brucellosis from domestic cattle and bison herds. All 50 States, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands have been Class Free for this disease since July 2009. APHIS' main focus for brucellosis in livestock is the Greater Yellowstone Area because the disease is endemic there in wild elk and bison. In addition, through cooperative efforts between APHIS and the State of Texas, the Cattle Health program has prevented CFT from spreading within the United States. This program's goal for FY 2017 is to continue to eliminate all CFT outbreaks that occur outside the quarantine area within 12 months.

Funding for this program increases preparedness, surveillance, and response to cattle health issues. APHIS will continue these activities in FY 2017, reducing the likelihood of disease spread resulting in larger and more serious disease outbreaks.

Approximately 56 percent of the Cattle Health funding is for salaries and benefits, 22 percent is for cooperative and programmatic contracts, such as those that support BSE sampling, cattle fever tick treatment, and lab/blood sampling. The remaining funds support normal operating costs such as travel, supplies, rent, and utilities.

Pay (+$839,000)

The request includes a total of $839,000 to cover increases in pay for associated employees, of which $176,000 is for the annualization of the 1.3 percent 2016 pay increase and $663,000 is for the 1.6 percent increase in 2017.

Program reduction (-$124,000)
Operating costs for the program will be reduced by $124,000.

Staff year redistribution (-78)

The request includes a decrease of 78 staff years.

(e) An increase of $158,000 for the Equine, Cervid and Small Ruminant Health program ($19,500,000 and 120 staff years available in 2016).

The Equine, Cervid, and Small Ruminant Health (ECSRH) program protects the health and improves the quality, productivity, and economic viability of the equine, cervid, sheep, and goat industries. APHIS activities include monitoring and surveillance, investigation and response, and disease prevention and preparedness actions taken when health issues are identified. The Agency's monitoring and surveillance activities detect foreign, emerging, zoonotic, and domestic diseases that could substantially impact the economy. APHIS works with international and domestic trading partners to facilitate safe trade in equine, cervids, and small ruminants and their products, and ensure that cases of diseases of trade concern are reported to the World Organisation for Animal Health (OIE). In FY 2015, the ECSRH program conducted disease surveillance and/or monitoring for the following diseases: scrapie, bovine tuberculosis (TB), chronic wasting disease (CWD), vesicular stomatitis virus, contagious equine metritis, Eastern equine encephalitis, Western equine encephalitis, equine herpes virus, equine piroplasmosis, equine infectious anemia (EIA), and West Nile virus (WNV). The status of disease program activities are highlighted below.

The National Scrapie Eradication Program (NSEP) focuses on improving the health of national sheep flocks and goat herds, relieving sheep and goat producers of scrapie-associated economic losses and increasing international marketing opportunities. To eradicate this disease, APHIS performs live-animal, necropsy, and slaughter testing to identify infected animals; genetic testing to reduce the susceptibility of sheep flocks to scrapie and to identify which scrapie-exposed sheep from infected and source flocks need to be removed to reduce the risk of recurrence; and testing of exposed animals that have moved out of infected flocks and animals exposed due to sale or movement of exposed or positive animals. Since 2003, the percentage of positive scrapie sheep found at slaughter has decreased by 98 percent. In FY 2015, APHIS tested 40,862 samples from sheep and goats for scrapie, compared to 48,102 samples tested in FY 2014. This decrease was largely due to APHIS' redirection of field personnel as part of the highly pathogenic avian influenza response. At the end of FY 2015, the percent of cull sheep found positive at slaughter and adjusted for face color was 0.004 percent compared to 0.019 percent in FY 2014.

To aid in the eradication of TB in the United States, APHIS provides a voluntary herd accreditation program for captive cervids, and requires testing of cervids before interstate movement. APHIS tests approximately 15,000 captive cervids for TB each year.

The Agency's voluntary national CWD herd certification program (HCP) helps States, Tribes, and the cervid industry control CWD in farmed cervids by allowing interstate movement only from certified herds at low risk for CWD. This measure is aimed at reducing the risk of CWD spread between States, and disease transmission between wild and farmed cervids. APHIS evaluates State CWD HCPs and conducts periodic reviews to ensure that they comply with national requirements. The Agency also supports confirmatory testing of presumptive cases. Currently, 30 States participate in the national CWD HCP – 29 have Approved Status and one has Provisional Approved Status. States that meet all the CWD HCP requirements have Approved Status, and States that do not meet all CWD HCP program requirements but have developed a work plan and time frame with APHIS to complete those requirements have Provisional Approved Status.

APHIS protects the equine industry by helping State animal health officials monitor equine diseases that threaten animal and human health. The Agency supports State and industry responses to outbreaks with coordination, diseases-specific technical guidance, epidemiological expertise, database maintenance, diagnostic assistance, and situation reports. APHIS is required to report to OIE on any cases of foreign animal disease in the United States, including contagious equine metritis. States are requested to report annually any cases of domestic equine diseases such as equine herpes virus, EIA, Eastern and Western equine encephalitis, and WNV. APHIS provides information on testing and treatment protocols for select non-foreign equine diseases such as WNV. APHIS collects information, and coordinates response efforts and testing protocols for domestic equine diseases.

Continued program funding increases the preparedness, surveillance, and response capability for equine, cervid, sheep, and goat health issues, while decreasing the likelihood of disease spread.

Approximately 65 percent of the Equine, Cervid, and Small Ruminant Health funding will be used for salaries and benefits, less than 8 percent for cooperative agreements and programmatic contracts, and the remaining supports normal operating costs such as travel, supplies, rent, and utilities.

Pay (+$185,000)

The request includes a total of $185,000 to cover increases in pay for associated employees, of which $39,000 is for the annualization of the 1.3 percent 2016 pay increase and $146,000 is for the 1.6 percent increase in 2017.

Program reduction (-$27,000)
Operating costs for the program will be reduced by $27,000.

(f) An increase of $1,750,000 and 6 staff years for the National Veterinary Stockpile program ($3,973,000 and 1 staff year available in 2016).

The National Veterinary Stockpile (NVS) is a vital component of USDA's emergency preparedness and response efforts. As the nation's repository for critical veterinary countermeasures, it serves as a primary source of materials, supplies, and equipment for the response to, control of, and containment of significant animal disease outbreaks, including those involving foreign animal diseases. NVS' goals are to deploy the countermeasures needed to respond to significant animal disease outbreaks for use by first responders within 24 hours of detection; and to help States, tribes, and territories request, receive, process, and distribute these countermeasures during an incident. Examples of these countermeasures include animal handling equipment, animal vaccines, pharmaceutical products, other veterinary supplies, and transportation and response support services. In preparation for response to an incident, the NVS conducts outreach with these partners to develop their logistical plans, conduct logistical training, and conduct full-scale logistical test exercises. Rapid deployment of veterinary countermeasures through the NVS can help reduce the magnitude of animal health events reducing costs incurred by producers, consumers, and response agencies. NVS has the capability to protect a team of 1,500 responders for 63 days and maintain antivirals to support 3,000 responders for 6 weeks. Currently, this program is prepared to respond to 15 high-consequence animal diseases and has specific countermeasures ready to deploy within 24 hours of detection for 5 of these diseases. A high-consequence disease is one that poses a severe threat to U.S. animal health and, in some cases, the economy and human health.

The NVS helps States, Tribes, and Territories with planning, training events, and test exercises in the rapid acquisition, processing, and distribution of these countermeasures during an event. To maximize cost-efficiency and response, APHIS personnel work with academia and industry modelers to develop a scientifically defensible estimate of the quantity of supplies to stockpile for each of the high-consequence diseases to which the Agency is prepared to respond, and continuously evaluate supply chains seeking opportunities to reduce delivery time. The NVS partners with several Federal agencies for scientific input on commercially available veterinary countermeasures such as vaccines, and develops criteria for deployment and determines ways to leverage stockpiles. The stockpile's capacity is commensurate with the resource level. Without NVS' efforts, outbreak response efforts would quickly deplete State and industry response inventories and overwhelm the private sector, leading to larger and more serious disease outbreaks.

In FY 2015, NVS procured the Rift Valley Fever vaccine, Classical Swine Fever vaccine (which differentiates infected from vaccinated animals), and additional poultry depopulation equipment. During FY 2015, APHIS awarded contracts to two companies to manufacture doses of avian influenza vaccine to be added to the stockpile. NVS also replaced expired inventory, such as the 24-Hour Push Packs, which consists of personal protective equipment (PPE) and decontamination supplies, and acquired additional bulk PPE. In addition, the program sought opportunities to lead, support, or coordinate various NVS

preparedness activities in several States. These efforts enhanced the preparedness of many Federal and State officials to respond logistically to a significant outbreak. In addition to outreach activities, NVS partnered internally with other Agency logistics personnel to conduct training to improve communication, collaboration, and integration during a logistics emergency response. These activities enabled the program, as well as participating stakeholders and partners, to refine their preparedness procedures. Throughout FY 2015, NVS continued to coordinate training and exercises to prepare APHIS personnel and stakeholders to respond to damaging animal disease outbreaks. This training allowed the NVS program and its partners to refine their skills before deployment. In FY 2016 and 2017, the program will maintain its capabilities to address high consequence diseases, effectively manage its inventories, and continue to seek ways to best address the Agency's response capabilities by quickly deploying animal health response resources. Also in FY 2017, the program will continue monitoring new technologies and conducting market research to enhance capabilities in the areas of depopulation, disposal, and decontamination. The NVS will add vaccine and therapeutic countermeasures for additional animal disease threats as technologies become available. The program also plans to update its deployment plans that outline the delivery of countermeasures.

Approximately 6 percent of the NVS program funding supports salaries and benefits. Approximately 66 percent funds contracts and agreements. The remainder supports normal operating costs such as travel, supplies, rent, and utilities.

Emergency Preparedness Tools and Tactics (+$1,749,000)

APHIS will fund cost increases associated with maintaining stockpiles of foot-and-mouth (FMD) disease vaccines at the North American FMD Vaccine Bank. The Vaccine Bank is a strategic reserve of antigens for the rapid production of vaccine in case the FMD virus is accidentally or intentionally introduced in North America. The antigens are acquired from foreign manufacturers, and are tested periodically for potency and efficacy, as are the resulting vaccines. Currently, the Agency spends approximately $1.4 million per year to maintain these stockpiles. With the requested increase, APHIS will address cost increases associated with acquiring antigens. In addition, the Agency will begin modernizing the FMD vaccine bank by moving forward with approaches that begin to include manufacturer-held vaccine stocks to supplement the traditional antigen stockpile APHIS has traditionally used.

Pay (+$1,000)

The request includes a total of $1,000 to cover increases in pay for associated employees, of which $300 is for the annualization of the 1.3 percent 2016 pay increase and $700 is for the 1.6 percent increase in 2017.

Staff year redistribution (+6)

The request includes an increase of 6 staff years.

(g) An increase of $171,000 and 16 staff years for the Swine Health program ($24,800,000 and 130 staff years available in 2016).

The Swine Health program protects the health and improves the quality, productivity, and economic viability of the swine industry. The 2014 production value of the swine industry was approximately $24.2 billion (National Agricultural Statistics Service). In addition, the program facilitates trade in swine and pork products, and addresses swine health issues at the human-swine interface and between wildlife and domestic swine. APHIS activities include: 1) comprehensive integrated surveillance (CIS), 2) emergency preparedness and response planning, 3) disease investigation and control activities, 4) zoonotic disease prevention and response, 5) swine health studies and special projects, 6) collaborations on emerging issues, and 7) outreach and communication with stakeholders. In addition, the Agency maintains regulatory and programmatic guidelines that direct activities at the Federal, State, and Tribal levels. Establishing and maintaining these national standards directly supports interstate and international commerce by ensuring the health of animals and products being moved or traded.

Early detection of devastating diseases, such as foot-and-mouth disease (FMD) or classical swine fever (CSF) is vital. APHIS' conducts CIS activities to quickly detect foreign, emerging, zoonotic, and domestic swine diseases that could substantially impact domestic producers and the national economy; reduce consumer confidence in the U.S. food supply; and/or have substantial economic impact to responding State, Tribal, and Federal animal health agencies. CIS includes:

1) field work and epidemiological investigations,
2) designated surveillance streams to collect biologic samples,
3) a veterinary diagnostic laboratory infrastructure,
4) data management systems, and
5) methodologies for data analysis and reporting.

As part of CIS, the Agency collects and tests more than 350,000 animals per year from various surveillance streams such as veterinary diagnostic laboratories, slaughter plants, high risk producer premises, livestock markets, and feral swine during elimination projects. These surveillance streams are flexible and scalable as priorities and needs change. In FY 2015, APHIS collected and tested samples for pseudorabies virus (PRV), swine brucellosis, CSF, influenzas that affect swine, swine enteric coronavirus disease, and porcine reproductive and respiratory syndrome. Surveillance testing supports the swine industry by assuring trading partners and other stakeholders that the United States is free of foreign animal diseases (FADs). In addition, it supports stakeholder participation in a system to rapidly detect FADs in swine. The Agency will continue to monitor for these diseases in FY 2017.

Although APHIS has eliminated PRV and swine brucellosis from all U.S. commercial swine herds, domestic swine remains at risk from diseases such as these, primarily due to increasing feral swine populations in the United States. To address this risk, APHIS tests feral swine during wildlife sampling of several swine diseases of concern. When a herd tests positive, APHIS and State partners investigate and quarantine infected herds, conduct testing to determine prevalence in the herd, and perform whole herd depopulation or removal of infected animals through a test-and-removal strategy to rid the disease from these herds. These response efforts protect commercial herds that may be exposed to infected backyard herds. APHIS continues to modernize regulatory and surveillance activities to reflect a comprehensive, risk-based, and science-based monitoring/swine surveillance program to support trade efforts while reducing the burden on States and producers.

APHIS is responsible under the Swine Health Protection Act to license and inspect swine production facilities that feed cooked garbage to swine, and to search for unlicensed facilities that feed raw garbage to swine. This practice can transmit infectious diseases such as African swine fever, FMD, or CSF to swine. By ensuring that food waste fed to swine does not contain active disease organisms that threaten domestic swine, APHIS protects the commerce, health, and welfare of U.S. citizens. APHIS will continue to inspect these types of facilities in FY 2017.

APHIS, States/Tribes, and industry collaborate regularly on policy and guidelines. The Agency also works with international trading partners to facilitate safe trade in swine and swine products. APHIS enters into cooperative agreements with State animal health and wildlife agencies and Native American Tribes to carry out surveillance and response programs.

Approximately 65 percent of the Swine Health funding is used for salaries and benefits, and 5 percent is used for cooperative agreements. The remaining funds support normal operating costs such as travel, supplies, and rent, and utilities.

Pay (+$201,000)

The request includes a total of $201,000 to cover increases in pay for associated employees, of which $42,000 is for the annualization of the 1.3 percent 2016 pay increase and $159,000 is for the 1.6 percent increase in 2017.

Program reduction (-$30,000)
Operating costs for the program will be reduced by $30,000.

Staff year redistribution (+16)

The request includes an increase of 16 staff years.

(h) An increase of $143,000 and a decrease of 8 staff years for the Veterinary Biologics program ($16,417,000 and 109 staff years available in 2016).

APHIS' Center for Veterinary Biologics (CVB) regulates veterinary biological products under the Virus-Serum-Toxin Act to ensure that these products are pure, safe, potent, and effective. These products, which include vaccines, bacterins, and diagnostic test kits, are valued at more than $1.35 billion domestically and are developed for the diagnosis, prevention, and treatment of animal diseases. They are used in all of the major farmed species (cattle, poultry, swine, and sheep), as well as horses, dogs, cats, and other pets. The CVB develops regulations concerning the production and licensing of veterinary biologics, evaluates pre-licensing dossiers and issuance of licenses and permits, tests products submitted for licensure, inspects facilities and products, approves product certifications, investigates non-compliance; and conducts post-marketing surveillance to ensure that manufacturers comply with all laws, regulations, and policies relating to this industry. This program's comprehensive regulatory approach is the most effective way to ensure that only quality, Federally-licensed, veterinary biological products are available to U.S. consumers, and plays an essential role in protecting animal health and agriculture.

APHIS licenses and inspects facilities to ensure that all veterinary biologics produced and distributed in, or imported into, the United States are of the highest quality, and are not worthless, contaminated, dangerous, or harmful. Before the Agency began regulating veterinary biologics, farmers and animal health officials found products to be ineffective or contaminated with harmful diseases, including foreign animal diseases (FADs). In FY 2015, APHIS received 129 applications for new and renewal licenses and issued 41 licenses/permits for the prevention, diagnosis, management, or cure of existing or new/emerging animal diseases. In FY 2015, the Agency licensed 97 manufacturers for approximately 1,724 active veterinary biological product licenses/permits. These products are vital for protecting American agriculture, facilitating trade, and enhancing agricultural economic opportunities.

Licensed products used for domestic animal diseases prevent illness and lost production in livestock; these products are also used to control and prevent zoonotic diseases such as rabies and influenza. APHIS expedites licensing for economically significant and/or zoonotic diseases. At the end of FY 2015, there were 220 animal diseases for which APHIS had issued a pure, safe, potent, and effective veterinary biologics product, including porcine epidemic diarrhea virus. This represents an increase of two diseases from FY 2014, and the Agency plans to maintain this level for fiscal years 2016 and 2017. Also in FY 2015, APHIS reviewed/processed 2,396 Certificates of Licensing and Inspection, and reviewed/processed 911 export certificates for veterinary biological products. The United States and foreign countries require import and export certificates to certify that products are prepared according to the Virus-Serum-Toxin Act. APHIS processed 98.8 percent of all export certificates within 4 days, and processed all certificates of licensing and inspection within 28 days. Timely processing helps ensure that markets are accessible for manufacturers who export their product. The Agency's main strategy is to gain and maintain compliance with its regulations by educating both licensed and unlicensed entities. APHIS annually inspects an average of at least 45 biologics manufacturing sites to assure compliance. More than 99 percent of the unlicensed entities investigated either move towards licensure of the product in question or cease the objectionable activity. APHIS took an average of 332 days to issue a product license in FY 2015, a reduction of 15 days from FY 2014. The Agency projects a timeframe of 340 days for FY 2016 and 2017. This demonstrates significant progress from FY 2010 when it took 541 days to issue a product license.

APHIS works with domestic agricultural research organizations, veterinary biologics manufacturers, commodity producers, and veterinary diagnostic organizations to address animal disease issues from a holistic approach. The Agency also gathers input from organizations such as the American Veterinary

Medical Association, and international groups such as the Veterinary International Cooperation on Harmonization (VICH) of Technical Requirements for the Registration of Veterinary Medicinal Products, to develop and harmonize veterinary biologics standards, promoting the industry's economic viability abroad. The VICH is a World Organisation for Animal Health-sponsored committee that reviews the international harmonization of technical requirements for veterinary medicinal products (both biologics and pharmaceuticals). APHIS also cooperates with veterinarians and the biologics industry to monitor any undesirable outcomes from using animal vaccines and other biological products. This surveillance serves as an alert system for detecting the possibility that a product may not be performing as intended. It also provides essential baseline information about the behavior of a vaccine or other biological product under everyday field conditions. In FY 2014, the VICH finalized new pharmacovigilance guidelines which include mandatory adverse event reporting. APHIS is incorporating these changes into a previously proposed rule, which is targeted for public comment in 2016.

Veterinary biologics derived from biotechnology and other modern technologies have greatly benefited livestock production and trade, animal well-being, and zoonotic disease protection. In June 2014, for example, APHIS conditionally licensed the first vaccine for porcine epidemic diarrhea virus. This vaccine was manufactured using virus-like particles—a new biotechnology that allows for the rapid development and manufacturing of vaccines for newly emerging disease threats.

Overall, approximately 60 percent of the program's funding supports salaries and benefits of personnel and less than 1 percent of funding is for contracts and agreements. The remaining funds support substantial costs related to supplies and normal operating costs such as travel, rent, and utilities.

Pay (+$168,000)

The request includes a total of $168,000 to cover increases in pay for associated employees, of which $35,000 is for the annualization of the 1.3 percent 2016 pay increase and $133,000 is for the 1.6 percent increase in 2017.

Program reduction (-$25,000)
Operating costs for the program will be reduced by $25,000.

Staff year redistribution (-8)

The request includes a decrease of 8 staff years.

(i) A net decrease of $4,697,000 and a decrease of 39 staff years for the Veterinary Diagnostics program ($36,540,000 and 190 staff years available in 2016).

Laboratory and diagnostic services are vital components of the U.S. animal health infrastructure. APHIS' Veterinary Diagnostics program develops and maintains accurate, rapid laboratory diagnostic support for national animal disease prevention, detection, control, and eradication programs; maintains national and international laboratory recognition with the highest quality reference assistance; assists other Federal agencies and State laboratories, educational institutions, and foreign governments in diagnosing animal diseases; and conducts developmental projects for rapidly advancing technologies. APHIS' reference laboratory services for animal disease diagnosis provide direct veterinary diagnostic capabilities and assistance to other diagnostic laboratories through animal disease information, technical guidance, reagents, and reference materials.

The Veterinary Diagnostics line item provides partial funding for APHIS' National Veterinary Services Laboratories (NVSL), which is the only national reference and confirmatory laboratory for agricultural animal diseases, and also provides expertise and guidance on diagnostic techniques for these diseases both in the United States and overseas. This line item also supports the National Animal Health Laboratory Network (NAHLN), which is a national network of laboratories managed by State governments and universities that provides animal disease surveillance and testing services, both daily and in the event of a

large-scale animal disease outbreak. The NAHLN is a coordinated animal disease surveillance and monitoring system that integrates and interconnects Federal and State laboratory resources and uses standardized diagnostic protocols and procedures to improve the security of the nation's livestock. It consists of 58 State and university laboratories in 42 States, as well as 4 Federal laboratories. The network laboratories perform approximately 300,000 diagnostic tests to support APHIS' animal health surveillance programs. The NVSL trains NAHLN personnel to ensure proficiency and standardization for performing diagnostic tests. In addition, the NAHLN conducts exercises and drills to prepare participating laboratories for animal disease outbreak scenarios. This enables the laboratories to remain proficient in animal disease testing. It also enables them to generate a rapid, local preliminary diagnostic result while confirmatory testing is performed at the NVSL. The program certifies laboratories to conduct tests on behalf of USDA for animal health program diseases, as well as movement and export certification. The program also validates diagnostics for program use, increasing the national capacity and efficiency of meeting veterinary diagnostic needs. APHIS' involvement in certification and proficiency testing programs of U.S. veterinary diagnostic laboratories maintains the credibility of U.S. diagnostic test results in the international marketplace. The funding supports NAHLN personnel, infrastructure for a portion of the participating laboratories, and travel for laboratory staff to attend NAHLN meetings. Additionally, the line item funds the NAHLN portal (a secure means of communication among NAHLN laboratories), personnel providing information management system support, and online quality management training used by the labs to maintain qualifications related to each NAHLN-approved laboratory's quality management system.

Diagnostic testing of surveillance samples improves the security of the nation's livestock. In FY 2015, APHIS managed more than 400,500 diagnostic tests and 42,200 accessions (one or more diagnostic samples received from the same submitter on the same day), and produced and provided more than 105,000 reagents representing more than 600 types of products, many of which are only available to stakeholders through APHIS. Because many of these tests and reagents are not available to customers from other sources, stakeholders depend on APHIS to provide them. APHIS also validated new test methods and platforms, and provided training and assistance to U.S. and international laboratories upon request.

International Organization for Standardization (ISO)-accredited bodies conduct annual peer reviews and external audits for this program. Based on these reviews, APHIS takes corrective actions and monitors improvements made to support the laboratories' internationally-recognized ISO 17025-accreditation for quality. The program also participates in international proficiency panel checks to compare the quality of testing techniques used by APHIS to those used by other countries.

APHIS conducts proficiency testing of Federal, State, and university sponsored laboratories to ensure they use standardized, rapid diagnostic techniques and to maintain the credibility of U.S. diagnostic test results in the international marketplace. APHIS generally conducts proficiency tests annually. This program needs to maintain proficiency for an indefinite period of time for eradicated diseases, and needs to constantly monitor these diseases to maintain readiness in case of an outbreak. In addition, the Food and Agriculture Organization of the United Nations has designated NVSL as a Reference Centre for foot-and-mouth disease and other vesicular diseases of the Americas and the Caribbean, animal influenza, and exotic Newcastle disease, as well as for bovine tuberculosis and Johne's disease. NVSL's services improve science-based decisions in disease detection and quarantine, which minimize the impacts and disruptions to important domestic and international export markets. In FY 2015, 23 percent of the proficiency tests supplied by the NVSL were accredited by the ISO. APHIS' goal is to increase that percentage to 34 percent in FY 2016 and to 40 percent in FY 2017.

Approximately 50 percent of the Veterinary Diagnostics funding will be used for salaries and benefits, and 6 percent will be used for cooperative agreements. The remaining supports operating costs such as equipment, supplies, travel, rent, and utilities.

Decrease of $4,946,000 for support for the NAHLN

This program supports the NAHLN by providing national leadership and coordination of laboratories and other services such as training of laboratory personnel, infrastructure support, and reimbursement for

animal disease testing conducted by the laboratories. APHIS certifies laboratories to conduct tests for animal health program diseases, as well as movement and export certification. The NAHLN enables Federal and State laboratories to test for economically devastating and potentially zoonotic diseases such as foot-and-mouth disease, influenza in avian and swine species, bovine spongiform encephalopathy, and swine enteric coronavirus diseases. With the requested decrease, the program will continue working with the NAHLN on the highest-priority animal health issues. While the additional laboratory capacity would be beneficial, funding is critically needed to support the Agency's overarching animal health readiness efforts. The Agency's readiness initiative consists primarily of increasing the number of emergency responders and training these responders to ensure that an adequate workforce is in place when threats arise.

Pay (+$292,000)

The request includes a total of $292,000 to cover increases in pay for associated employees, of which $61,000 is for the annualization of the 1.3 percent 2016 pay increase and $231,000 is for the 1.6 percent increase in 2017.

Program reduction (-$43,000)
Operating costs for the program will be reduced by $43,000.

Staff year redistribution (-39)

The request includes a decrease of 39 staff years.

(j) An increase of $10,000,000 and 19 staff years for the Zoonotic Disease Management program ($9,523,000 and 45 staff years available in 2016).

The Zoonotic Disease Management (ZDM) program enhances State, national, and international collaborative efforts to promote healthy animals, people, and eco-systems. This integrated approach is known as "One Health." Zoonotic diseases are those that pass between animals and people. Most new and emerging human pathogens are zoonotic, and are thought to have originated from animals. These statistics support a One Health approach to problem-solving and policy development. APHIS provides national leadership in addressing the animal health component of One Health by contributing animal health expertise, infrastructure, and networks. The Agency collaboratively develops strategies, policies, and training programs to help animal health stakeholders engage with their public health counterparts by providing communication guidance and facilitating information exchanges. APHIS' efforts to address the animal health component of One Health directly impact public health through improved animal health and marketability. In addition, APHIS and the University of Minnesota (UMN) have developed and piloted a standardized framework to enhance cross-agency collaborations and improve animal, human, and environmental health. This framework is entitled, "The One Health Systems Mapping and Analysis Resource Toolkit" (OH-SMART). In FY 2015, APHIS co-led an OH-SMART collaboration with UMN that resulted in the development of facilitator, participant, and workshop planning guides that were used in courses by representatives from the Government of Indonesia and the Indonesia One Health University Network. At the State's request, APHIS used OH-SMART to conduct an after-action review of the State of Minnesota's response to the FY 2015 outbreak of highly pathogenic avian influenza.

The ZDM program monitors national and international environments for health events that may benefit from APHIS involvement. APHIS' activities extend beyond zoonotic agents to include antimicrobial resistance (AMR), food safety, chemical contamination of animals through the environment or feed, residues of veterinary drugs, and response to natural disasters to impede the spread of diseases. Human outbreaks in recent years of Ebola, avian influenza A (H7N9), and Middle East Respiratory Syndrome, caused by a coronavirus, highlight the challenges in the global response to emerging animal diseases with human pandemic potential. APHIS promotes an all-hazards approach to strengthening pandemic and animal disease preparedness, surveillance, and response. By using this approach rather than focusing on a specific disease, the Agency can be prepared for various diseases, including emerging diseases. APHIS

works with the Department of Health and Human Services Centers for Disease Control and Prevention to address animal components of zoonotic diseases. In addition, the Agency provides leadership in the North American Plan for Animal and Pandemic Influenza, strengthening trilateral preparedness and response capabilities for human and animal health in Mexico, Canada, and the United States.

This program engages in Preharvest Food Safety (PHFS) efforts, which involve on-farm interventions to reduce the risk of foodborne diseases in humans. APHIS works with stakeholders to identify risk factors, as well as on-farm practices that can enhance PHFS. APHIS' National Animal Health Monitoring System collects data about select potential foodborne pathogens and uses this data to provide benchmarks and identify trends. APHIS also works with producers to provide voluntary, on-farm consultation on PHFS. In FY 2015, APHIS partnered with the UMN to develop operational tools and new information to facilitate APHIS' work in PHFS to address risks from *Salmonella* in poultry.

AMR is a global issue affecting both public and animal health. It requires a One Health approach involving multidisciplinary coordination from both the public health and animal health sectors. As part of the President's National Strategy for Combating Antibiotic Resistant Bacteria (CARB), APHIS works with other USDA agencies to develop mitigation strategies to limit or reduce AMR prevalence. This strategy covers a broad array of potential government efforts to address AMR in human and animal health including surveillance at the farm level, collection of antimicrobial drug use data, and efforts to promote stewardship of antimicrobial drugs by animal owners and veterinarians. In FY 2015, APHIS and several other Federal agencies finalized the USDA AMR Action Plan to prioritize the issue of antibiotic resistance using an integrated approach for AMR surveillance, research and development, and outreach activities. The Plan's goals are to

(1) determine patterns, purposes, and impacts of antibiotic use in food animals;
(2) monitor antibiotic drug susceptibilities of selected bacterial organisms in food-producing animals, production environments, and meat and poultry; and
(3) identify management practices, antibiotic alternatives, and other mitigations to reduce AMR associated with food-producing animals and their production environments.

APHIS' role in this effort includes plans for AMR surveillance at the farm level, collection of antimicrobial drug use data, and work to promote stewardship of antimicrobial drugs by animal owners and veterinarians. APHIS works with State and Federal partners, veterinarians, and producers to promote the judicious use of antimicrobials, which will support a strong, healthy, and thriving U.S. animal-agriculture system as well as public health.

APHIS is also working with the Food and Drug Administration (FDA) to develop strategies to assess the impacts of policy actions related to antimicrobial drug use in livestock and poultry. The Agency also joined FDA and the non-profit Farm Foundation in delivering workshops across the United States to communicate APHIS' AMR activities. The Agency also established cooperative agreements with academic institutions for molecular studies, retrospective analyses of existing National Animal Health Monitoring System data, and longitudinal studies of antimicrobial use relative to resistance on poultry farms. APHIS has also participated in several international AMR activities. For example, the Agency provided comments on chapters of the World Organisation for Animal Health (OIE) Terrestrial Animal Health Code related to AMR. APHIS and FDA continue to provide input to the OIE's ad hoc group developing a global database on antimicrobial drug use. APHIS also continues to participate in the Transatlantic Task Force on AMR, which was formed after the 2009 U.S.–EU summit.

Coordination and collaboration across all levels of the human, livestock and wildlife health sectors are vital to meet the Global Health Security Agenda (GHSA) vision for "a world safe and secure from global health threats posed by infectious diseases." APHIS works domestically and internationally to protect the United States from global health threats posed by infectious diseases. The GHSA is an international effort across governments, non-governmental organizations, and civil society, to accelerate global capacity to address infectious disease threats. APHIS continues to coordinate USDA efforts for antimicrobial resistance, emergency operations, and emerging zoonoses through a GHSA sub-group of the USDA Joint One Health Working Group. In addition, the Agency proposed an approach to clarifying and aligning USDA's role in

GHSA, and provided briefings to the USDA One Health Joint Working Group and the Deputy Under-Secretary for Marketing and Regulatory Programs. APHIS is encouraging the use of OH-SMART workshops at the country-level as a powerful tool for strengthening interagency coordination under GHSA. In FY 2015, APHIS supported USDA attendees at White House level meetings, and represented USDA at Ministerial-level international meetings such as the GHSA meeting in Seoul in September 2015. During that meeting, the United States committed to an independent assessment to identify strengths and gaps in our global health security architecture. As another outcome of the Seoul meeting, OH-SMART is now being considered by GHSA leadership as a method/tool to accomplish certain zoonotic action package activities within GHSA.

Approximately 75 percent of ZDM funding is used for salaries and benefits, 15 percent for agreements and contracts, and the remaining funds are used for normal operating expenses such as travel, supplies, equipment, and rent, and utilities.

Increase related to AMR ($9.916 million and 19 staff years)

While each Agency's FY 2017 budget proposal focuses on their specific role and activities, all USDA AMR activities and funding are inextricably linked. This enables USDA to maximize efforts, reduce duplication, and leverage resources across the agencies in the areas of surveillance, research, education, and extension/outreach. Each Agency's proposed activities depend upon the partnering agencies fulfilling their proposed activities. This integrated approached allows the most timely and effective response to the AMR issue.

In FY 2017, APHIS will support the Administration's National Strategy for Combating Antibiotic Resistant Bacteria by implementing on-farm surveillance in two commodities, targeting on-farm sampling to supplement ongoing NAHMS studies, implementing standardized antibiotic susceptibility testing (AST) of selected animal pathogens, developing a standardized plan for voluntary AST surveillance, collaborating to study the microbial ecology associated with feeding antibiotics or antimicrobials, conducting activities to promote judicious antibiotic use, and developing a centralized database and data storage system to house laboratory data for routine reporting. With the additional funding, APHIS will increase the depth of data collection, develop monitoring programs across the food production continuum, and leverage other data sources from passive surveillance systems. These activities will enhance the understanding of on-farm levels of antibiotic usage and the impact on AMR levels. APHIS will coordinate these efforts with other Federal agencies for a more integrated Federal response effort.

Also in support of the Administration's National Strategy, APHIS and the National Agricultural Statistics Service (NASS) will continue to collect cross-sectional and longitudinal data on farm practices and animal health. APHIS will conduct surveys of antibiotic use, AMR patterns, and management practices associated with food-producing animals and their environments. NASS will conduct surveys that cover issues such as agricultural production, economics, demographics and the environment, as well as a Census of Agriculture that provides the only source of uniform, comprehensive agricultural data for every county in the nation. This information will be combined with information from the characterization of biologic samples collected by APHIS and the Food Safety and Inspection Service to evaluate and identify changes in antibiotic usage, production practices, and disease status, and to determine if efforts to impact the use of antibiotics reduce the prevalence of antibiotic resistance in animal food production and the environment.

Intramural research that the Agricultural Research Service (ARS) conducts, and competitive extramurally-funded research activities that the National Institute of Food and Agriculture (NIFA) funds, will lead to better understanding and characterization of effective AMR mitigation strategies throughout the agro-ecosystem. USDA will use data from ARS research and NIFA-funded research, education, and extension/outreach activities, to inform antimicrobial stewardship efforts conducted both within and external to government. Information from these agencies will support ongoing Economic Research Service analysis on the effects of alternative policy scenarios on farm production, profits and market outcomes. In addition, APHIS will monitor antibiotic use and develop a data system to inform decisions on antibiotic use. APHIS' efforts will inform public health entities about AMR patterns that could impact zoonotic

infections in people, and support the laboratory infrastructure, allowing broader implications for animal and human health that extends beyond AMR-related concerns. A significant amount of AMR information and data funded by private sector interests has been published in scientific journals. Commodity-specific quality assurance programs have not sufficiently assured public health interests and consumers that antibiotic use in agriculture is appropriate. Through this initiative, APHIS can help in this regard in the areas of data verification and validation, analytic capabilities, and outreach.

Pay (+$99,000)

The request includes a total of $99,000 to cover increases in pay for associated employees, of which $21,000 is for the annualization of the 1.3 percent 2016 pay increase and $78,000 is for the 1.6 percent increase in 2017.

Program reduction (-$15,000)
Operating costs for the program will be reduced by $15,000.

A net decrease of $20,864,000 and a net increase of 62 staff years for Safeguarding and Emergency Preparedness/Response – Plant Health

(k) An increase of $1,927,000 and a net increase of 3 staff years for the Agriculture Quarantine Inspection program ($27,900,000 and 369 staff years available in 2016).

APHIS conducts pre-departure agricultural quarantine inspections of passengers and cargo traveling from Hawaii and Puerto Rico to the continental United States to prevent the introduction of non-native agricultural pests and diseases into the mainland. Hawaii and Puerto Rico have tropical climates with distinct ecosystems and pests. For example, a variety of economically devastating fruit flies – particularly the Mediterranean fruit fly and Oriental fruit fly – and scale pests are present in Hawaii, and Puerto Rico experienced its first Medfly outbreak in FY 2015, along with an outbreak of the old world bollworm. These pests are easily carried long distances on fruits and other commodities and would cause significant economic damage to the mainland United States. In addition to the citrus industry that may be at risk (with a production value of more than $3 billion), cut flower and nursery stock production is also at risk from the pests and diseases present in Hawaii and Puerto Rico. Together, cut flower and nursery stock have a production value of more than $3.9 billion. Additionally, two significant cotton pests (pink bollworm and the cottonseed bug) are present in Puerto Rico that could be brought into the United States on cargo shipments without an effective inspection program. The pre-departure inspection program facilitates the movement of travelers and cargo while preventing the entry of these pests and diseases from affecting agricultural production in the continental United States.

Because of the high volume of travelers from Hawaii and Puerto Rico to the continental United States along with the risks associated with numerous fruits, vegetables, and animal products from these areas, APHIS inspects all baggage of passengers leaving these islands (approximately 11.17 million passengers in FY 2015). The program has maintained a passenger compliance rate of more than 97 percent for the last several years. The program partners with industry groups and State and Commonwealth counterparts to facilitate the safe movement of cargo. In Puerto Rico, the program oversees treatments for mangoes, cotton, and a variety of other commodities to allow them to be transported and sold in the continental United States. In Hawaii, the State Department of Agriculture conducts nursery inspections and certifies nursery stock for shipment to the U.S. mainland.

More than 92 percent of the program's resources support salaries and benefits of inspectors and other staff. The remaining resources are for normal operating expenses such as rent, utilities, travel, and supplies.

Increase for Pre-Departure Inspections ($1,430,000 and 10 staff years)

The Agriculture Quarantine Inspection program keeps interstate trade flowing smoothly and safely and allows for efficient processing of tourists, protecting both the economies of Hawaii and Puerto Rico and the agricultural health of the continental United States. This program currently spends more than 92 percent of its funding on salaries and benefits and has little flexibility to add staffing during peak travel times. In both Hawaii and Puerto Rico, airlines are expanding their hours of operation to maximize their efficiencies, requiring APHIS to increase hours of operations. For example, in one location in Hawaii, hours have expanded from 8.5 hours a day to 13 hours a day. Overall, flights from Hawaii and Puerto Rico have increased by 8.4 percent between FY 2011 and FY 2015.

APHIS is using the increase provided in FY 2016, to fill longstanding vacancies in the busiest ports. The program continues to face a need to bring on additional staff during peak travel hours and ensure coverage during airlines hours of operation. The additional funding would allow APHIS to increase staffing at peak times and accommodate airline schedules. APHIS would also use a portion of the funding to increase the number of canine teams used in inspection operations. Canine teams allow for effective and efficient inspections of passenger bags, cargo, and mail. Without additional resources, APHIS may have to reduce inspection services, potentially causing long wait times for travelers or, in the worst case, reducing the effectiveness of inspections. This request will allow the program to maintain or increase its performance target of having at least 97 percent of passengers in compliance with agricultural quarantine inspection regulations. As additional canine teams are added to the program, APHIS will increase their use in the passenger baggage arena, which will help the program maintain the current compliance rate despite the increased number of flights and potential for additional quarantine materials.

The Agricultural Quarantine Inspection program reduces the impact of agricultural pests and diseases, and protects and enhances plant health. In doing so, it works to facilitate access to safe, plentiful, and nutritious food. In addition, it supports rural communities by minimizing production losses and pest control costs, and preserving export markets for U.S. agricultural products. If funding for the pre-departure program was eliminated, the risk of pest or disease introduction from Hawaii and Puerto Rico to the mainland United States would greatly increase. Additionally, certain commodities would not be allowed entry to the continental United States without the inspections and treatments provided by the program, impacting Hawaiian and Puerto Rican producers. Maintaining the safeguards this program provides is essential, especially considering the increasing U.S. consumer demand for imported fruits and vegetables in recent years.

Pay (+$583,000)

The request includes a total of $583,000 to cover increases in pay for associated employees, of which $122,000 is for the annualization of the 1.3 percent 2016 pay increase and $461,000 is for the 1.6 percent increase in 2017.

Program reduction (-$86,000)
Operating costs for the program will be reduced by $86,000.

Staff year redistribution (-7)

The request includes a decrease of 7 staff years.

(a) A net decrease of $3,250,000 and a decrease of 7 staff years for the Cotton Pests program ($11,520,000 and 58 staff years available in 2016).

The Cotton Pests program, in cooperation with States, the cotton industry, and Mexico, has nearly eradicated the boll weevil and pink bollworm (PBW) from all cotton-producing areas of the United States and northern Mexico. For decades, these pests have cost cotton growers tens of millions of dollars each year in control costs and crop losses. APHIS provides national coordination, operational oversight,

technology development (such as sterile PBW moths), and a portion of program funding. APHIS' partners have provided more than two-thirds of the funding for the boll weevil eradication effort and most of the operational funds for PBW eradication. The program also maintains capabilities to address other cotton pests that could enter the United States. In addition, APHIS provides technical advice on trapping and treatment protocols to its partners in Mexico to aid their efforts to eradicate boll weevil and PBW. Without continued Federal funding, support and technical expertise for the final phase of the program, eradication would not be possible, and previously eradicated cotton acreage would be vulnerable to reinfestation. Additionally, U.S. cotton production may be at risk of new pests approaching the country through the Caribbean Basin and Mexico.

APHIS' cotton pests program directly protects 6.7 million acres of cotton production worth $1.7 billion in Texas (where the last remaining boll weevil population is present) and indirectly protects 10.2 million acres worth $6.8 billion nationwide. The Lower Rio Grande Valley (LRGV) is the last zone within the United States where active boll weevil eradication efforts continue. The LRGV is impacted by the neighboring Mexican cotton producing state of Tamaulipas and the area's security issues. Inclement tropical weather also has hindered progress in the LRGV region by providing a yearlong growing season favoring volunteer cotton plants, which are cotton plants growing outside the intended planted and cultivated field. While there was decreased cotton acreage planted in the LRGV in FY 2015, detections of boll weevil increased by threefold due to frequent rains, flooding, and windy conditions. The bad conditions also affected the Tamaulipas' program significantly. In FY 2015, APHIS partnered with an International Technical Advisory Committee to develop technical strategies to eradicate BW from the LRGV zone and neighboring Tamaulipas. Tamaulipas producers adjusted their late-season treatment strategies to reduce late-season weevil populations. Additionally, they have begun to heighten their efforts to reduce volunteer cotton plants along roadways and former cotton fields. APHIS has initiated efforts to survey the Rio Grande river area, near the pocket of concentrated BW captures in the LRGV. This is the area with highest BW captures early in the calendar year, but without cultivated cotton acres. During the fall sampling in 2015, there was a BW finding near Batesville, Texas. Increased trapping efforts are underway in order to assess the extent of the outbreak.

Due to the number of captures this year, the program put a hold on its goal to fully eradication BW from all cotton-producing areas of the United States and adjacent areas of northern Mexico by 2015. APHIS will continue monitoring for BW to ensure the program quickly detects any reintroductions while continuing to fully eradicate the pest in the upcoming years.

In the United States, although the volume of acreage planted with cotton varies from year to year, the PBW commonly causes cotton losses of 20 percent or more in affected areas. The PBW control program began in 1967, and APHIS, along with cooperative program partners, have eradicated the PBW from Southern California, Arizona, large areas of New Mexico, and the El Paso region of Texas. The southwestern growing areas within the United States are now in the "confirmation of eradication" phase of the program. To date, the program maintains its fully eradicated status and will begin the fourth and final year of the eradication confirmation phase in FY 2016. In the past, APHIS reared and distributed sterile insects to reduce the PBW populations in support of the eradication programs. APHIS is currently maintaining a colony during the confirmation of eradication phase. The last native moths detected in the United States (and Mexicali and San Luis, Mexico) were detected in 2012. No native moths were reported in FY 2015.

Approximately 40 percent of the program's funding covers Federal salaries and benefits, 35 percent supports cooperators' on-the-ground activities, and 15 percent supports the purchase of supplies, such as traps and pink bollworm rearing materials. The remaining funds support operating expenses such as travel, rent, and utilities.

Reduction related to progress toward eradicating PBW (-$3,326,000)

The program is on track for declaring eradication of the pink bollworm in FY 2016, and therefore will require fewer resources in FY 2017 to address this pest. The remaining resources will enable the program to continue addressing the boll weevil in areas of Texas near the border with Mexico. The program will

continue monitoring for boll weevil to ensure the program quickly detects any reintroductions while continuing to fully eradicate the pest in the upcoming years.

Pay (+$89,000)

The request includes a total of $89,000 to cover increases in pay for associated employees, of which $19,000 is for the annualization of the 1.3 percent 2016 pay increase and $70,000 is for the 1.6 percent increase in 2017.

Program reduction (-$13,000)

Operating costs for the program will be reduced by $13,000.

Staff year redistribution (-7)

The request includes a decrease of 7 staff years.

(b) An increase of $76,000 and 19 staff years for the Field Crop and Rangeland Ecosystem Pests program ($8,826,000 and 58 staff years available in FY 2016).

The Field Crop and Rangeland Ecosystem Pests (FCREP) program protects U.S. agricultural crops and rangelands from the establishment or spread of invasive or economically significant pests. In addition, it facilitates safe international trade and domestic commerce, preserves economic opportunities for U.S. farmers, and fosters healthy ecosystems in rangelands and other areas. APHIS conducts survey and suppression activities in western States to reduce grasshopper and Mormon cricket (GMC) infestations that could cause significant economic losses for livestock producers by requiring them to buy supplemental feed or sell their livestock at reduced prices. In addition, the Agency develops treatments for land managers to remove imported fire ant (IFA) from their products and prevent re-infestation; conducts regulatory activities to prevent Karnal bunt (KB) and IFA from "hitchhiking" on regulated articles (i.e., nursery stock and farm equipment) to uninfested areas of the United States and foreign countries through trade; and, conducts survey, treatment, and regulatory activities for witchweed infestations in North and South Carolina to protect U.S. corn and sorghum crops. The FCREP program prevents an estimated $6.3 billion annually in damage to agriculture, industry, and homeowners. This program directly protects more than 230,000 acres of wheat and corn worth more than $18 million. It indirectly protects all U.S. wheat and corn production, which was worth more than $64 billion in FY 2014, from the spread of KB and witchweed.

Nearly all western U.S. rangeland is located near rural communities where livestock production is vital to the local economy. A 2012 University of Wyoming report entitled "An Economic Analysis of the Comprehensive Uses of Western Rangelands" determined that the value of rangeland forage averages $13 per acre, and the comprehensive value of rangeland for use as wildlife habitat, stabilizing soils and filtering water, recreation, and other uses is 2-3 times greater. When grasshopper populations reach outbreak levels, they can decimate grasslands. APHIS' GMC program monitors and protects 661 million acres of rangeland each year worth a total of nearly $8.7 billion. APHIS identified significantly higher than expected grasshopper populations on three Indian reservations in Montana in FY 2015. The Agency conducted treatments on the Northern Cheyenne, Crow, and Flathead reservations, protecting more than 384,000 acres and preventing a larger outbreak from developing next year. The program also addresses witchweed, a parasitic plant that can significantly damage corn, sorghum, and sugarcane. If witchweed were to spread throughout the Corn Belt, crop yields for corn and sorghum could decrease by 10 percent and trade in commodities from these areas could be negatively impacted. Predictive models suggest that APHIS' IFA program is preventing up to 10 additional States from becoming infested. APHIS will continue conducting surveys and other activities to manage these pests in FY 2017.

Also as part of the FCREP program, APHIS coordinates an annual voluntary survey of the grain delivered to elevators to check for KB across the country and conducts regulatory activities to prevent the spread of

the disease from the remaining infested area in Arizona. APHIS is able to issue export certificates that are required by countries importing U.S. wheat due to our quarantine and survey efforts. These certificates demonstrate to trading partners the safety of U.S. wheat exports, retaining export markets and facilitating wheat movement into international markets. If there was an interruption of the program's ability to certify wheat exports, USDA's Economic Research Service estimated in 2010 that there would be a cumulative reduction of national net farm income of $8 billion over the next eight years. If KB funding was eliminated, the disease could enter the grain market system and directly impact almost every State. Many trading partners will not accept U.S. wheat exports unless the commodity is certified to be from areas where KB is not known to occur. Working with cooperators, APHIS has reduced the wheat production areas regulated for KB from all or portions of four States to approximately 200,000 acres in Arizona since 1996. APHIS will continue survey and regulatory activities aimed at keeping KB from causing damage and/or trade disruptions in FY 2017.

APHIS cooperates with Federal, State, Tribal, and local agencies, organizations, and institutions to conduct the program's activities. These cooperators are held accountable for meeting their obligations through the terms of cooperative agreements, which include work and financial plans that APHIS and the cooperators develop that specify when accomplishment reports and results must be submitted. APHIS provides national coordination, threat assessment, development of pest control strategies and regulatory requirements, and pest inspections.

Approximately 46 percent of the program's resources support salaries and benefits of APHIS' employees and 31 percent supports cooperators' operations. Another 13 percent goes toward contracts and the purchase of supplies, including those needed for treatments. The remaining resources are for normal operating expenses such as rent, utilities, travel, and equipment.

Pay (+$89,000)

The request includes a total of $89,000 to cover increases in pay for associated employees, of which $19,000 is for the annualization of the 1.3 percent 2016 pay increase and $70,000 is for the 1.6 percent increase in 2017.

Program reduction (-$13,000)
Operating costs for the program will be reduced by $13,000.

Staff year redistribution (+19)

The request includes an increase of 19 staff years.

(c) An increase of $190,000 and 45 staff years for the Pest Detection program ($27,446,000 and 145 staff years available in 2016).

The goal of the Pest Detection Program is to document the distribution of plant pests and diseases of Federal regulatory significance in the United States. The program serves as the early warning system for the detection of plant pests of economic and environmental significance. The information provides the basis for APHIS' emergency response, regulatory efforts, and pest management programs that preserve economic opportunities for farmers (i.e., interstate commerce and international trade) and safeguards U.S. agricultural and natural resources. The program uses a multi-pronged strategy that includes: identifying and prioritizing plant pest and disease threats; using scientifically sound pest diagnostics and survey protocols; procuring essential survey materials (traps, lures, etc.); conducting pest surveys; providing direction and support for survey data management and quality control; posting survey results to the Agency's website to provide a clear distribution of pests and identify pest-free areas on a timely basis; and, notifying States of significant pest detections through established protocols. APHIS works with Federal agencies, State departments of agriculture, Tribes, academic institutions, and industry partners to conduct these program activities. APHIS and its State cooperators carry out surveys through the Cooperative Agricultural Pest Survey program.

APHIS provides national coordination for the program and develops policies and procedures for commodity-based and resource-based surveys. These surveys enable APHIS and cooperators to target high-risk hosts and commodities, gather data about pests specific to a commodity, and provide accurate assessments of pest distribution, including pest-free areas. Negative data from Pest Detection surveys for globally important pests such as European grapevine moth (EGVM), light brown apple moth (LBAM), and Khapra beetle, to name a few, supports U.S. market access for several important commodities by demonstrating that the pests are not present. Early pest detection is important to avert economic and environmental damage; once a pest becomes established or spreads significantly, the mitigation costs can reach millions of dollars, in addition to lost farm revenues and damage to ecosystems. Additionally, while many entities are involved in protecting crops and resources, APHIS verifies that U.S. products do not pose risks to other countries. For example, when the pale cyst nematode was first detected in Idaho (through a Pest Detection survey), the program had data demonstrating negative survey results in other potato-producing States that kept export markets open for U.S. potatoes. According to the Global Trade Atlas, the value of the market that remained open was $186 million in 2012. Without the Pest Detection funding, APHIS would not be able to conduct surveys for high-risk pests or provide funding to cooperators for these surveys. As a result of APHIS' funding, highly skilled, national cadres of surveyors are in the field on a daily basis looking for high-risk pests. In FY 2015, the program and its cooperators are conducting surveys for 248 individual pests, pathogens, and noxious weeds, exceeding its goal of 200. The program is also conducting 120 commodity- and taxon-based surveys, with an average of 7 pests per survey (surpassing the goal of 5 per survey).

The Pest Detection program communicates and develops partnerships through cooperative agreements with State departments of agriculture and natural resources, universities, industry partners, tribal and local governments and communities, non-profit organizations, and individuals in all 50 states. These entities have common objectives, and initiate activities to safeguard agriculture and the environment from the introduction of harmful plant pests, and to facilitate safe trade by demonstrating absence of pests of phytosanitary significance. Parties are held accountable through required reporting of activities.

In FY 2017, the program and its cooperators will conduct surveys for a minimum of 200 individual pests, pathogens, and noxious weeds, as well as conduct 110 commodity- and taxon-based surveys, with an average of at least 5 pests per survey. The program expects to continue conducting surveys for an average of 15 pests in each State.

Approximately 54 percent of the program's funding supports Federal salaries and benefits, 36 percent is for cooperative agreements with States and other partners listed above, and the remaining 10 percent is for other operating expenses such as travel, rent, utilities, and supplies.

Pay (+$223,000)

The request includes a total of $223,000 to cover increases in pay for associated employees, of which $47,000 is for the annualization of the 1.3 percent 2016 pay increase and $176,000 is for the 1.6 percent increase in 2017.

Program reduction (-$33,000)
Operating costs for the program will be reduced by $33,000.

Staff year redistribution (+45)

The request includes an increase of 45 staff years.

(d) An increase of $184,000 and a decrease of 10 staff years for the Plant Protection Methods Development program ($20,686,000 and 141 staff years requested in the 2016).

The goal of the Plant Protection Methods Development (PPMD) program is to develop scientifically viable and practical tools for exotic plant pest exclusion, detection, and management. These tools preserve economic opportunities for farmers and industries that engage in interstate commerce and international trade, and safeguard U.S. agricultural and natural resources from invasive plant pests. One area of focus is the development of biological control technologies to manage a variety of damaging pests and weeds. The program plays an essential role in APHIS' mission by developing tools for the detection of exotic pests in survey programs; developing molecular diagnostic tests and identification tools for pest identification; developing integrated pest management methods, including biological control, to help eradicate or manage invasive pests; and developing phytosanitary treatments to support interstate and international trade.

APHIS' nationwide pest detection surveys and pest management programs depend on accurate and effective tools. The PPMD program supports development of pest trapping, identification, and survey technologies. Digital pest identification tools and molecular diagnostics developed through PPMD funding supports both domestic programs and import pest identification responsibilities. APHIS uses these tools to conclusively identify exotic species introductions in order to take appropriate regulatory actions. The program also develops pest management techniques that APHIS national programs use to manage or eradicate invasive pest threats. The program recently developed an improved fruit fly trapping lure that is safer and easier to handle to support exotic fruit fly survey programs, and a modification of a fruit fly rearing diet that will save eradication programs over $200,000 annually. APHIS also developed area-wide pest management and biological control methods for the Asian citrus psyllid, the vector for citrus greening. APHIS is currently transferring technology to produce the biological control agents to California, Texas, and Puerto Rico. In 2015, APHIS also permitted the environmental release of a new parasite for the emerald ash borer (EAB), an invasive beetle that is devastating ash species across the eastern United States and Canada. In FY 2016, APHIS plans to begin production of this species and make it available to cooperators. This will bring the number of biological agents released to support long-term mitigation of EAB to four.

The PPMD program partners with States, universities, Tribes, other Federal agencies, and international partners to accomplish its goals. APHIS collaborates with stakeholders through participation in scientific review panels, technical working groups, and interagency and cooperative agreements. These partnerships and cooperative agreements allow APHIS to quickly access scientific knowledge on a new pest issue to develop exclusion, detection and management techniques. Coordination of biological control activities for the emerald ash borer is a good example that involves each of these stakeholder groups. APHIS is also partnering with USDA's Agricultural Research Service, the University of Maryland, and the University of Hawaii to manage and control varroa mites, small hive beetles, and other pests and diseases harmful to honey bee health. Moving forward, APHIS will look at factors affecting disease incidence such as weather, geography, and management practices.

The program has consistently met or exceeded its performance measure targets. For example, the program is on track to meet its 2015 target by developing the technology and completing analysis for the permitting of the new parasitoid for EAB, bringing the cumulative number of biological control projects implemented to a total of 78. The program will also meet its annual performance target of developing or improving at least 5 phytosanitary commodity treatments, resulting in an increase in trade and a reduction in methyl bromide fumigations. The PPMD program conducts reviews of each project area with APHIS program managers on at least an annual basis. These reviews are designed to evaluate project progress, ensure the projects are meeting APHIS program needs, and prioritize future work. APHIS will continue to conduct these activities in FY 2017. Without this program, APHIS would not be able to provide the tools needed to carry out plant pest eradication and detection programs. In FY 2017, the program and its cooperators will develop a minimum of five new/improved regulatory treatments for commodities of trade.

Approximately 70 percent of the program's funding supports Federal salaries and benefits, and another 14 percent supports contracts and agreements. The remaining resources are for normal operating expenses such as rent, utilities, travel, and equipment.

Pay (+$216,000)

The request includes a total of $216,000 to cover increases in pay for associated employees, of which $45,000 is for the annualization of the 1.3 percent 2016 pay increase and $171,000 is for the 1.6 percent increase in 2017.

Program reduction (-$32,000)
Operating costs for the program will be reduced by $32,000.

Staff year redistribution (-10)

The request includes a decrease of 10 staff years.

(e) A net decrease of $11,924,000 and an increase of 30 staff years for the Specialty Crop Pests program ($158,000,000 and 688 staff years available in the 2016).

The goal of the Specialty Crop Pests (SCP) Program is to protect U.S. fruits and vegetables, tree nuts, horticulture, and nursery crops from adverse impacts associated with invasive pests, such as crop damage or threats to international trade and interstate commerce. APHIS works in coordination with State, Tribal, university, and industry partners to prevent or mitigate impacts for invasive pests of Federal regulatory significance. These activities include verifying pest distribution, creating conditions that prevent long distance spread of the pest, developing and implementing diagnostic tools and pest mitigation strategies, and communicating with the public to gain support for program strategies and modify behaviors that introduce or spread pests. These efforts promote the ability of U.S. farmers and producers to export their products, prevent damage to specialty crop production (helping to ensure the availability of fresh fruits and vegetables), and protect natural resources, including forests and residential landscapes. Specialty crops are grown in all 50 States, and they have a high value. APHIS' SCP program directly protects production (including citrus, grapes, potatoes, nursery stock, and tree fruit) worth more than $9.8 billion in FY 2014 (based on internal analysis using data from the Census of Agriculture and USDA's National Agricultural Statistics Service). APHIS is currently using SCP resources to address the following pests and diseases: pale cyst nematode (PCN), the light brown apple moth (LBAM), plum pox virus (PPV), exotic fruit flies, glassy-winged sharpshooter (GWSS), European grapevine moth (EGVM), and a variety of citrus diseases (including huanglongbing, or citrus greening) among others.

While Federal response activities take place in concentrated areas where the infestations occur (e.g., PCN in Idaho or LBAM in California), they also protect all at-risk States producing specialty crops. For example, the SCP program works to address the PCN in Idaho and conduct nationwide surveys for the pest, protecting fresh potato export markets worth $186 million in FY 2012 (according to the Global Trade Atlas). The program also addresses PPV in New York. In FY 2015, the program eradicated an outbreak in one area of the State but found a new detection in another part of the State. PPV is a devastating viral disease of stone fruit, and addressing it in New York protects more than 1 million acres of stone fruit across the United States. Without the SCP program, a variety of export markets for U.S. specialty crops would be at risk—the program protected trade worth more than $8.9 billion in 2014.

The SCP program partners with affected industries, States, Tribes, academic institutions, and other Federal agencies, to deliver domestic programs. Additionally, the program works with its counterparts in foreign countries to address pest risks offshore. For example, the SCP program works with Mexico and Guatemala to mitigate the risk of exotic fruit flies entering the United States. The program has kept the United States free of Mediterranean fruit fly (Medfly) and Mexican fruit fly (Mexfly) for many years by conducting preventative releases of sterile insects to disrupt normal population growth in at-risk areas; detecting and responding to outbreaks when they occur; and maintaining a barrier against the natural spread of the

Medfly in Mexico and Central America. Medfly has been recorded infesting 300 cultivated and wild fruits. The Mexfly also has a wide-ranging host list and presents a particular threat to the Texas citrus industry due to its proximity to infested areas in Mexico. APHIS and cooperators maintain 150,000 fruit fly traps in vulnerable areas to ensure that any introductions of exotic fruit flies are detected quickly. In FY 2015, the program responded to 12 outbreaks of exotic fruit flies, including Medfly outbreaks in California and Puerto Rico and Mexfly outbreaks in Texas. Without the program's efforts to detect and eradicate these outbreaks when they occur, many important crops would become impossible to grow due to fruit fly infestations. APHIS will continue activities to detect and prevent outbreaks in FY 2017.

To protect the U.S. grape and wine industries, APHIS has partnered with California grape growers to eradicate EGVM and prevent the spread of GWSS into grape-producing areas. In the collaborative effort against EGVM, APHIS provides funding, expertise, and operational support for surveys and regulatory efforts to find and prevent the spread of the target pests, while industry funds and conducts the necessary control treatments (with technical guidance from APHIS and State officials). APHIS and its State, county, and industry partners have had significant success in eliminating EGVM from California—only 446 square miles remain quarantined out of the 85,000 square miles initially impacted. No moths were detected in FY 2015, and APHIS expects to be able to remove the remaining quarantine restrictions in FY 2016. APHIS will continue surveys in FY 2017 and several additional years after to confirm that EGVM has been eliminated. Eradicating this pest dramatically lowers growers' production costs and protects or expands export opportunities.

APHIS also works with citrus producing States and industry groups to support industry's ability to grow and market U.S. citrus despite the presence of devastating diseases such as citrus greening, or huanglongbing (HLB). Because of the ongoing threat posed by HLB, APHIS is expanding its partnership with the citrus industry to explore new strategies and opportunities, such as those done with the HLB Multi-Agency Coordination (MAC) group, for supporting and preserving U.S. citrus production and markets. The MAC Group has funded research to quickly combat HLB. Examples of projects include biological control methods to control Asian citrus pysillid, or ACP (an insect that spreads HLB), field testing of anti-microbial treatments against HLB, using detector dogs to find newly infected trees, developing HLB-tolerant rootstock, treating infected trees with thermal therapy, and developing best management practices for citrus groves in ACP or HLB-affected areas. With biological control projects already underway, APHIS and cooperators are increasing the number of biological control agents reared and released from approximately 4 million per year in FY 2014 to more than 12 million per year by the end of FY 2016. Biological control shows promise for managing ACP in both urban areas and citrus groves. As the biological control agents become established, APHIS will track the impact on ACP populations and evaluate how decreases in ACP populations reduce new HLB infestations. Overall, APHIS will track the percent of techniques and tools developed through the HLB MAC that are adopted by growers and/or commercialized. By the end of FY 2015, growers and commercial firms had already adopted 13 percent of the tools funded through HLB-MAC projects. APHIS is hopeful that the solutions found through this funding will help citrus growers in the near future, while research into long-term solutions for HLB continues. APHIS will continue to address to citrus greening and other citrus diseases in FY 2017.

Approximately 55 percent of the program's resources support cooperators' on-the-ground operations, such as surveys, regulatory inspections, and outreach to affected growers and the public as well as methods development activities at other USDA agencies. These cooperators are held accountable for meeting their obligations through the terms of cooperative agreements, which include work plans and financial plans developed by APHIS and the cooperating entity that specify when accomplishment reports and results must be submitted. Approximately 30 percent of program funding is for salaries and benefits for oversight, national coordination, threat assessment, development of pest control strategies and regulatory requirements, and on-the-ground inspections and trapping activities for some pests, among other things. The remaining funds support services, supplies, equipment, rent, and other operating expenses.

In addition to the activities and functions specifically described in the budget request, current year and budget year base funds will be used to carry out activities and functions consistent with the full range of authorities and activities delegated to the agency.

Reduction to adjust cost-share rates (-$12,818,000)

APHIS is requesting an overall decrease of $12.818 million for the SCP program in FY 2017 related to cost-sharing adjustments for three pest and disease programs that will allow for more equitable Federal contributions to the programs. APHIS works as a partner with its cooperators at the State, local, and industry levels to achieve overall program goals. Our goal is to have a 50-50 cost share with States and industry. However, we take many factors into account when determining an appropriate level of cost share to pursue. The decrease includes:

- A reduction of $7.223 million for the Citrus Health Response Program, which would reduce the Federal cost-share rate from 94 percent to 80 percent. While the citrus industry spends considerable resources on fighting citrus greening, State partners in the four main citrus growing States (Florida, California, Arizona, and Texas) have contributed approximately $3 million per year collectively over the last 5 years while APHIS has used between $42 and $46 million per year. Given the economic benefits each State receives from the presence of the citrus industry (such as jobs for citizens), additional State contributions would be more equitable.
- A reduction of $2.153 million for the GWSS program, which would reduce the Federal cost-share rate from 53 percent to 47 percent. The California grape growers contribute $16.7 million per year for this effort, while the State uses minimal funds to support this program. APHIS spends approximately $18 million per year. California benefits greatly from the presence of the grape industry (the benefits include jobs, tourism, and tax revenue among others). Accordingly, additional State contributions would be more equitable.
- A reduction of $3.442 million for the LBAM program, which would reduce the Federal cost-share rate from 100 percent to 49 percent. Since FY 2011, cooperators have contributed a cumulative amount of $311,000 for this program. Its benefits include keeping export markets open for many fruits and vegetables from areas quarantined because of LBAM. Accordingly, additional State and industry contributions would be more equitable.

Pay (+$1,049,000)

The request includes a total of $1,049,000 to cover increases in pay for associated employees, of which $220,000 is for the annualization of the 1.3 percent 2016 pay increase and $829,000 is for the 1.6 percent increase in 2017.

Program reduction (-$155,000)
Operating costs for the program will be reduced by $155,000.

Staff year redistribution (+30)

The request includes an increase of 30 staff years.

(f) A net decrease of $8,067,000 and a decrease of 18 staff years for the Tree and Wood Pests program ($54,000,000 and 319 staff years available in the 2016).

America's forests are valuable resources that provide jobs and recreation opportunities and create habitat for wildlife. They provide economic opportunities and ecosystem services worth an estimated $1.2 trillion. APHIS works with various Federal and State agencies, local governments, industry groups, and other partners to protect forests, urban landscapes, private working lands, and other natural resources from harmful pests and diseases. Through the Tree and Wood Pests (TWP) program, APHIS addresses devastating pests such as the Asian longhorned beetle (ALB), emerald ash borer (EAB), and European gypsy moth. Numerous native hardwood tree species that are common throughout U.S. forests and urban landscapes are hosts to these pests. Conserving forests enhances the economic vitality of rural communities by protecting the value of forest-related industries, the tourism and recreational value of lands and their related commercial activities, and the environmental and ecological value of lands. When forest

pests like EAB kill large numbers of trees in urban and suburban areas, they can cause tremendous, wide-ranging impacts to communities, landscapes, and commerce. In addition, exports of forest products such as logs and timber could be at risk due to trade restrictions put in place by other countries. Nationwide, APHIS programs protect 596 million acres of forested land by preventing the spread of damaging pests. With each acre of forested land valued between $1,000 and $2,000, the program protects land/property valued on average at $21,000 for each dollar it spends.

APHIS cooperates with State and local agencies and organizations in 48 States to conduct various activities to manage and, when feasible, eradicate these pests. These activities include conducting surveys, developing and enforcing regulations, implementing control measures, developing methods and processes to combat pests, and conducting outreach efforts to prevent pest spread. APHIS' role in the TWP program is to oversee the regulatory framework to prevent the human-assisted movement of these pests and to provide national oversight and coordination for program activities to detect and eradicate or manage the pests. APHIS and its cooperators continue to improve program delivery and to create more efficient projects.

APHIS works with a variety of partners in State departments of agriculture and natural resources, other Federal agencies, Tribal representatives, local governments and communities, university scientists, industry groups, and private citizens to protect forests and urban trees. For example, APHIS and the U.S. Forest Service worked together to develop a computer-based survey design tool that State and local agencies can use to implement EAB surveys and provide more accurate representations of established EAB populations. APHIS also works with State cooperators to release biological control agents in 17 States, with releases in 83 individual counties. Additionally, APHIS is working with USDA's Agricultural Marketing Service (AMS) and the American Firewood Producers and Distributors Association to develop a firewood certification program that will help mitigate the spread of EAB and other forest pests. AMS will manage a third-party certification program, which would allow firewood dealers to demonstrate that their products meet pest mitigation standards, thus facilitating commerce and preventing the spread of damaging insect pests to new areas.

In FY 2017, APHIS will continue addressing ALB outbreaks in Massachusetts, Ohio, and New York (including the most recently detected infestation on Long Island); pursuing biological control options as a long-term EAB management strategy; and slowing the spread of gypsy moth through inspections and regulatory activities.

Approximately 45 percent of TWP funding supports personnel costs, 15 percent is for cooperative agreements, 28 percent supports contracts, and the remaining 12 percent funds other expenses. APHIS typically awards contracts to tree companies for surveys, treatments, and tree removal. Agreements may be made with Federal, State, Tribal, and local government agencies; nongovernmental organizations; and academic and research institutions to conduct survey, management and control activities; develop and oversee outreach efforts; and develop new methods to combat these pests.

Reductions related to cost-share rates (-$8,481,000)

APHIS is requesting a decrease of $8.481 million for the TWP program in FY 2017 related to cost-sharing adjustments for two pest and disease programs that will allow for more equitable Federal contributions to the programs. APHIS is requesting a decrease of $8.481 million for the TWP program in FY 2017 related to cost-sharing adjustments for two pest and disease programs that will allow for more equitable Federal contributions to the programs. The pests and diseases that APHIS addresses have a direct impact on State and local conditions. Since States, localities, and industry are beneficiaries of the programs, it is appropriate that all parties accept their share of responsibility by devoting resources to address the outbreak before significant economic damage occurs. APHIS works as a partner with its cooperators at the State, local, and industry levels to achieve overall program goals. We can accomplish more when program partners help support the programs that directly benefit them. The decrease includes:

- A reduction of $6.505 million for the ALB program, which would reduce the Federal cost-share rate from 95 percent to 80 percent. State partners most impacted by ALB (New York, Massachusetts, Ohio, and New Jersey) contributed approximately $1.9 million collectively in FY 2015 while APHIS spent approximately $54 million. The annual contribution of forest-based manufacturing and forest-related tourism and recreation to the economies of Ohio, New York, and New England is approximately $35 billion. Additional State contributions are reasonable given the benefit derived from these industries.
- A reduction of $1.976 million for the EAB, which would reduce the Federal cost-share rate from 97 percent to 75 percent. In FY 2015, State partners contributed approximately $170,000 per year collectively while APHIS spent approximately $11 million. Annually, forest pests could cost local governments up to $1.7 billion due to tree damage and removal, and $830 million in lost residential property values according to a 2011 study conducted through the National Center for Ecological Analysis and Synthesis Working Group. Additional State contributions would be more equitable given the potential of greater costs associated with not controlling EAB for State and local governments.

Pay (+$486,000)

The request includes a total of $486,000 to cover increases in pay for associated employees, of which $102,000 is for the annualization of the 1.3 percent 2016 pay increase and $384,000 is for the 1.6 percent increase in 2017.

Program reduction (-$72,000)
Operating costs for the program will be reduced by $72,000.

Staff year redistribution (-18)

The request includes a decrease of 18 staff years.

A net decrease of $15,044,000 and a decrease of 108 staff years for Safeguarding and Emergency Preparedness/Response – Wildlife Services

(g) A net decrease of $15,258,000 and a decrease of 70 staff years in the Wildlife Damage Management program ($101,177,000 and 628 staff years available in the2016).

The Wildlife Damage Management (WDM) program resolves human/wildlife conflicts and protects agriculture, human health and safety, personal property, and natural resources from wildlife damage and wildlife-borne diseases in the United States. This program protects livestock from predators, manages invasive species, such as feral swine and beavers, conducts a national rabies management program, and manages various wildlife species and diseases.

Livestock losses attributed to predators cost producers more than $138 million annually, according to the most recent surveys by National Agriculture Statistics Service. Cost-benefit analyses have shown that for each dollar spent on livestock protection, APHIS saves producers between $2 and $7 in losses. APHIS prevents and reduces livestock predation through education, technical assistance to producers, and management programs. In FY 2015, APHIS' WDM program helped producers in the western United States with livestock valued at more than $2.5 billion.

APHIS' natural resource protection includes protecting natural areas and native wildlife from invasive species such as the brown tree snake (BTS), nutria, and feral swine. An article published by the University of Hawaii indicates that the annual projected economic impacts of the potential translocation of the BTS from Guam into Hawaii would range from $593 million to $2.4 billion. In FY 2015, APHIS intercepted approximately 21,500 BTS in Guam to prevent movement into Hawaii and the continental United States.

Feral swine have quickly established themselves throughout the nation, increasing from 1 million animals in 17 States to about 5 million animals in 41 States, resulting in one of the fastest growing invasive species in the United States. In FY 2015, APHIS made significant progress by working with State and local partners to remove feral swine, reduce the damage they cause, and monitor for significant animal diseases such as swine influenza, pseudorabies, brucellosis, porcine reproductive and respiratory syndrome, influenza, toxoplasmosis, tularemia, and trichinellosis. In FY 2015, APHIS published a draft environmental impact statement in the *Federal Register* that outlined options for implementing the feral swine program. After careful review of all comments, APHIS is proceeding with a nationally coordinated, integrated response to reduce and, in some areas, eliminate the risks and damage inflicted by feral swine to agriculture, property, natural and cultural resources, and human health beginning in FY 2015. APHIS will serve as the lead Federal agency in a cooperative effort with other agency partners, states, territories, tribes, organizations, and local entities that share a common interest in reducing or eliminating problems cause by feral swine. APHIS also established operational programs on 130 million acres. With the use of new technology, such as camera equipped Unmanned Aircraft Systems, APHIS successfully eliminated feral swine from four States. The Agency will continue to monitor these States for the next two years to ensure feral swine do not reestablish themselves in those areas, and continue to conduct disease surveillance and monitoring to protect the health of domestic swine.

In FY 2015, APHIS distributed more than 10.1 million oral rabies vaccine baits over more than 190,000 square kilometers. This program has led to the elimination of canine rabies in coyotes, resulting in the United States being declared canine free in 2007, the near elimination of gray fox rabies from Texas, and the containment of raccoon rabies in the eastern United States.

Overall, APHIS' WDM activities benefit private landowners, businesses, and Federal, State, county, and city government offices. They enable farmers and ranchers to be profitable, feed consumers domestically and abroad, and contribute to our communities. Without these WDM services, people might use methods that compromise America's agriculture, human health and safety, personal property, and natural resources.

This program estimates that it will use 62 percent of its funding on personnel costs, 1 percent on contracts and cooperative agreements, and the remaining 37 percent to support normal operating costs such as travel, supplies, rent, and utilities.

A decrease of $16,032,000 in the Wildlife Damage Management program and 31 staff years
In FY 2017, APHIS proposes to reduce $16.032 million in funding that supports the Agency's work to minimize impacts from wildlife on forests, urban landscapes, rangelands and other natural resources, private lands, as well as other activities that reduce the impact of wildlife damage.

A decrease of $2,564,000 for the oral rabies vaccination program
In FY 2017, APHIS proposes to reduce funding for rabies activities in States outside of the barrier zone. APHIS will work with impacted States to provide services on a reimbursable basis. APHIS plans to use approximately $23.563 million to conduct rabies programs in FY 2017.

A decrease of $7,667,000 and 31 staff years for activities related to the protection of natural resources
APHIS proposes to reduce funding for activities to protect natural resources and public roadways from problematic wildlife while allowing APHIS to focus on higher priority Agency activities related to the protection of the American Agriculture such as feral swine. Specifically, the proposed decrease will reduce the Agency's current activities related to the protection of natural resources, and wildlife that cause damage to public and provide lands, and damage infrastructure. Since FY 2012, cooperators have provided an average of 59 percent of the funding for activities related to wildlife damage management. The cooperators that directly benefit from these services should assume a greater share of the program costs. APHIS is committed to working with affected States and localities to provide these services on a reimbursable basis. Cooperators may also contract with private vendors who provide wildlife damage services.

A decrease of $5,801,000 for aircraft equipment and safety needs

APHIS proposes to decrease funding related to aircraft equipment purchases. In FY 2016, Congress provided an additional $8 million to APHIS for aircraft equipment and safety needs. APHIS will use the increase to engage in a one-time capital investment to replace aging aircrafts and hangars for them. In FY 2017, APHIS will use a portion ($2.199 million) of the additional funding provided in FY 2016 to provide training, maintenance support, and ensure the newly acquired aircrafts are ready for induction into the Agency's operational fleet.

Pay (+$908,000)

The request includes a total of $908,000 to cover increases in pay for associated employees, of which $190,000 is for the annualization of the 1.3 percent 2016 pay increase and $718,000 is for the 1.6 percent increase in 2017.

Program reduction (-$134,000)

Operating costs for the program will be reduced by $134,000.

Staff year redistribution (-39)

The request includes a decrease of 39 staff years.

(h) An increase of $214,000 and decrease of 38 staff years for the Wildlife Services Methods Development program ($18,856,000 and 163 staff years available in 2016).

APHIS provides the only dedicated Federal leadership in managing wildlife problems and developing methods to resolve human-wildlife-agricultural conflicts. The Wildlife Services Methods Development (WSMD) program works with cooperators to conduct research and develop socially responsible methods to prevent and mitigate damage caused by wildlife and invasive species on agricultural productions, and to detect and prevent wildlife diseases that may impact animal health and agricultural biosecurity. This program provides scientific information to support the development and implementation of socially-acceptable methods for managing wildlife damage. These methods enable APHIS, cooperators, and individuals to protect crops, livestock, natural resources, property, and public health and safety.

In recent years, APHIS' WSMD program has developed methods to mitigate the spread of feral swine; improve the use of livestock protection dogs in Idaho, Montana, Oregon, and Washington; and distribute aerial baits in Guam that have reduced the population of brown tree snakes by 75 percent in the targeted area. Each of these examples has reduced damage to property, agriculture, human health and safety, and/or native wildlife and ecosystems. Additionally, the WSMD program develops data to register products that enable the private sector to further manage human-wildlife conflicts. An example of this type of technology transfer is the registration of a contraceptive to control the white-tail deer population, with the U.S. Environmental Protection Agency and the Food and Drug Administration. The program also explores ways to reduce the spread and transmission of zoonotic diseases, and develops disease diagnostic methods. In addition, the program develops strategies to monitor wildlife pathogens, assesses risks to agriculture and human health and safety, and assists APHIS' operational programs with surveillance and monitoring. These methods are essential to cooperators, and preserve businesses and regional employment opportunities.

The WSMD program serves as an international leader in non-lethal research to reduce wildlife damage. In FY 2015, the program initiated 162 studies and published 92 scientific studies in 51 different professional scientific journals and book chapters. Without continued resources, the WSMD program will not be able to develop and evaluate new tools and strategies to manage wildlife damage, including managing the expanding feral swine population, registering safe toxicants, and developing new methods for improving trapping and oral bait delivery systems.

The program estimates that it will use 68 percent of its funding on personnel costs, 7 percent on contracts and cooperative agreements, and the remaining 25 percent to support normal operating expenses such as facility maintenance, supplies, travel, security, and other research related operational costs.

Pay (+$251,000)

The request includes a total of $251,000 to cover increases in pay for associated employees, of which $53,000 is for the annualization of the 1.3 percent 2016 pay increase and $198,000 is for the 1.6 percent increase in 2017.

Program reduction (-$37,000)
Operating costs for the program will be reduced by $37,000.

Staff year redistribution (-38)

The request includes a decrease of 38 staff years.

An increase of $307,000 and a net decrease of 22 staff years for Safeguarding and Emergency Preparedness/Response – Regulatory Services

(i) An increase of $186,000 and a decrease of 26 staff years for the Animal and Plant Health Regulatory Enforcement program ($16,224,000 and 142 staff years available in 2016).

The Animal and Plant Health Regulatory Enforcement (APHRE) program promotes the integrity of APHIS programs by providing effective and efficient investigative and enforcement services. APHIS' four regulatory programs, along with the Agricultural Quarantine Inspection activities at the Department of Homeland Security Customs and Border Protection, are all national programs that require Federal investigative and enforcement support to promote compliance and program integrity, and ultimately, protect American agriculture. The APHRE program centralizes this function into one national program, thereby promoting greater efficiency, effectiveness, and consistency than would not be possible if each program handled these functions independently. The program serves as APHIS' primary liaison with USDA's Office of Inspector General (OIG) and Office of the General Counsel (OGC), the U.S. Department of Justice (DOJ), and other Federal and State law enforcement organizations.

The APHRE program ensures compliance through comprehensive investigations, sound enforcement actions, and strong educational efforts. The program uses monetary penalties and alternative enforcement actions, including non-monetary settlement agreements, and works with OIG, OGC, and/or DOJ to pursue administrative, civil, or criminal action, as appropriate, in response to alleged violations of APHIS-administered laws. This helps to foster deterrence of those who may attempt to circumvent U.S. agricultural laws. Program activities serve to deter individuals and companies from engaging in acts that could otherwise cause extensive economic damage and/or excessive expenses related to eradication or mitigation efforts designed to protect the American agriculture system.

APHIS developed and applies criteria to focus resources on the highest priority cases. In doing so, the Agency is able to expedite the processing time for enforcement actions involving violations that pose the greatest risk to animal and plant health, while expeditiously resolving hundreds of lower priority cases to reduce the overall backlog of cases. By streamlining business processes and focusing on the highest priority investigations for APHIS' animal and plant health programs, APHRE achieved the long-term performance measures that it established for itself in FY 2011. As of August 2015, the program reduced: (1) its inventory of open investigations by 80 percent (from roughly 2,100 to 420 open investigations); and (2) the time to complete an investigation and resulting enforcement action by 50 percent (from 632 days to 314 days). The APHRE program also issued 801 Official Warnings and 431 pre-litigation settlements that resulted in the collection of $619,117 in stipulated penalties, and obtained administrative orders assessing $78,550 in civil

penalties. The program will continue to focus on the highest priority investigations and timely enforcement in FY 2017.

Approximately 88 percent of funds are used for salaries and benefits, 1 percent for information technology management, and 11 percent for normal operating expenses, including travel for mission-critical investigative and enforcement activities, supplies, printing, rent, and utilities.

Pay (+$218,000)

The request includes a total of $218,000 to cover increases in pay for associated employees, of which $46,000 is for the annualization of the 1.3 percent 2016 pay increase and $172,000 is for the 1.6 percent increase in 2017.

Program reduction (-$32,000)
Operating costs for the program will be reduced by $32,000.

Staff year redistribution (-26)

The request includes a decrease of 26 staff years.

(j) An increase of $121,000 and 4 staff years for the Biotechnology Regulatory Services program ($18,875,000 and 92 staff years available in the 2016).

The biotechnology industry—valued worldwide at $280 billion—develops innovative products that can greatly benefit the public. On the plant health side, genetically engineered (GE) crops benefit farmers through improved yields and consumers through improved traits, such as healthier oils and reduced exposure to potential carcinogens. Every day, American farmers and consumers benefit from USDA's role in bringing biotech products to the marketplace in support of USDA's strategic goal to "Help America promote agricultural production and biotechnology exports as America works to increase food security." However, before any of these products can be brought to market, it is essential to demonstrate, through rigorous, scientific review, that they do not pose a risk to America's agricultural and natural resources. USDA ensures new GE crops will not pose plant health risks when released into the environment. According to the USDA Economic Research Service, more than 90 percent of the soybeans, corn, and cotton grown by U.S. farmers are developed using biotechnology. USDA's reviews and regulatory determinations support producers of new and innovative GE technologies in their efforts to enter commerce and the worldwide marketplace, supporting global strategies to meet the need for food security, healthier food, energy production, carbon offsets, and the economic sustainability of farms. These controls instill confidence in the public and in our trading partners that GE products produced in the United States are safe and of the highest quality.

APHIS ensures that developers, growers, and others take the important steps to prevent unauthorized releases of GE organisms. Depending on the characteristics of the GE organism, the developer files an application in the form of either a permit or a notification. A permit is more restrictive than a notification, and is generally issued for GE organisms that may pose a greater plant pest risk. A notification is a streamlined permit for GE organisms that are less likely to pose plant pest risk. In FY 2015, APHIS authorized 1,500 notifications and permits throughout the United States.

When reviewing notifications and permit applications, APHIS requires that developers are in compliance, meaning they meet conditions to ensure the GE organisms are confined and do not persist in the environment when the field trial is completed. To ensure that GE organisms meet standards outlined in the permit or notification, APHIS inspects fields, equipment, and other facilities. In FY 2015, APHIS and the States (authorized by APHIS) conducted more than 688 site inspections; 39 of which were unannounced inspections. Approximately 96 percent of those inspected were in compliance with APHIS biotechnology regulations.

Once a developer can demonstrate that a GE crop does not pose a risk to plant health, the developer can seek determination of nonregulated status (also known as deregulation) of the crop. USDA review and deregulation of these GE crops are essential in making these products available in the marketplace. In FY 2015, USDA completed eight petitions, surpassing its goal of five determinations of nonregulated status. These determinations of nonregulated status include a low-browning apple, two varieties of cotton, two varieties of soybeans, reduced lignin alfalfa, a low-acrylamide potato that has a reduced tendency for black spot bruising, and a blight resistant potato. In FY 2015, APHIS reached a cumulative total of 117 determinations. Determinations of nonregulated status have been an immense benefit to farmers, producers, and consumers. Agricultural biotechnology gives farmers and producers more tools to address pest, disease, and weed management issues, contributes to the adoption of no-till and low-till practices, and helps safeguard crops against disease. USDA expects the number of determinations of nonregulated status to increase from 117 in FY 2015 to 126 in FY 2017.

APHIS enabled more rapid and predictable availability of biotechnology products to farmers, ultimately providing technologies to growers sooner and more choices for consumers. APHIS identified and implemented solutions to significantly improve the speed and predictability of the petition process without affecting the quality of decision-making. In FY 2015, using an improved petition process, APHIS reduced the time to prepare a plant pest risk assessment from three to five years to 1.8 years (on average), while simultaneously almost eliminating the backlog of petitions. In FY 2017, APHIS will continue to devote resources to petitions to meet target timelines and expects to meet its improved target timelines for any petitions (not requiring an EIS) submitted during the fiscal year.

As USDA moves into FY 2017, the Agency will use the experience gained from improving the petition process, and identify effective methods, to continue to reduce regulatory incidences in permitted field trials. USDA will explore the current regulations in an adaptable way to manage risk and address regulatory issues in the least burdensome manner possible while ensuring the best available science is used in the analyses. For example, in FY 2015, APHIS took a fresh look at an underutilized regulatory provision that allows APHIS to identify regulated GE organisms similar to deregulated GE organisms, and process those deregulations in a streamlined, extension approach.

In addition to the petition process, the APHIS' "Am I Regulated?" (AIR) process considers whether an organism is a regulated article under current APHIS biotechnology regulations. If developers are unsure whether their GE organism meets the definition of a regulated article, they can send a letter to APHIS. The letter must include scientific data, the technology used, and other information about the GE organism. APHIS will evaluate the description of the product and inform the developer if the GE organism is or is not regulated by APHIS under the biotechnology regulations. APHIS publishes their responses to AIR letters on its website. In FY 2015, APHIS responded to 12 AIR inquiries.

Under the Coordinated Framework for the Regulation of Biotechnology, USDA works with the Environmental Protection Agency and the Food and Drug Administration to ensure the safe development of products derived through genetic engineering. The program partners with the National Plant Board to allow State inspectors to conduct inspections of field release sites. This partnership makes additional staff available for inspections and ensures cost-effective use of resources. Also, APHIS routinely notifies Tribal governments of regulatory activities and decisions that have the potential to affect tribal lands or resources offering government-to-government consultation to better understand their issues and concerns.

APHIS works with international partners to enhance the coordination of regulatory approaches for the safe use of GE organisms and provides capacity building assistance to developing countries for the regulation of GE crops. For example, in FY 2015, APHIS worked closely with Mexico and Canada on technical and regulatory biotechnology issues in bilateral, regional, and multi-lateral international venues. APHIS also meets with foreign visitors who are interested in understanding how the United States regulates the safe use of biotechnology derived crops. These interactions include foreign visitors representing the press, politicians, government ministry officials, scientists, and consumer groups. In FY 2015, APHIS provided technical support to USDA's Foreign Agriculture Service, State, and other

U.S. government agencies in outreach activities related to participation in the Meeting of the Parties to the Cartagena Protocol on Biosafety held in South Korea (currently 170 countries are Parties). This work is aimed at enhancing coordination of regulatory approaches and providing capacity building assistance for the regulation of GE crops. APHIS will continue to engage in activities that promote U.S. exports of GE products.

Overall, approximately 80 percent of the program's funding supports salaries and benefits of personnel, 10 percent funds contracts and agreements, 5 percent funds major IT system costs, and 5 percent supports normal operating costs such as travel, supplies, and rent, and utilities.

Pay (+$142,000)

The request includes a total of $142,000 to cover increases in pay for associated employees, of which $30,000 is for the annualization of the 1.3 percent 2016 pay increase and $112,000 is for the 1.6 percent increase in 2017.

Program reduction (-$21,000)
Operating costs for the program will be reduced by $21,000.

Staff year redistribution (+4)

The request includes an increase of 4 staff years.

An increase of $27,195,000 and 117 staff years for Safeguarding and Emergency Preparedness/Response – Emergency Management

(k) An increase of $6,000 for the Contingency Fund ($470,000 and 5 staff years available in 2016).

The APHIS Contingency Fund provides the Agency with resources to implement emergency, short term activities that are relatively small in scale and not otherwise supported by the Agency's commodity line items within the appropriation. The Agency can quickly access the resources needed for the control of outbreaks of plant and animal diseases, and for the control of insects, pest animals, and birds to the extent necessary to meet emergency conditions. For example, the Agency was able to initiate activities to effectively address outbreaks of the European grapevine moth, rabies, contagious equine metritis, giant African land snail, feral swine, and most recently, outbreaks of cattle fever ticks in Texas.

In FY 2015, APHIS used the contingency fund to respond to the detection of cattle fever ticks in Texas. Cattle fever ticks can carry bovine babesiosis, a severe and often fatal disease of cattle. To eliminate the threat of bovine babesiosis, cattle fever ticks were eradicated from the United States in 1943, except for a small, permanent quarantine zone in the Lower Rio Grande Valley along the Mexican border. APHIS maintains a cattle fever tick monitoring program along this zone. Between May 2014 and November 2014, APHIS and Texas officials found 11 premises outside the quarantine zone with cattle fever ticks. APHIS and the Texas Animal Health Commission implemented an emergency response program with a temporary quarantine to eradicate these outbreaks. This effort involved inspecting and treating all premises, livestock, and other hosts within the temporarily quarantined area, as well as controlling the movement of livestock and hunted animal trophies. The cattle fever tick and bovine babesiosis have the potential to cripple the U.S. cattle industry if not contained, potentially costing the industry up to $100 billion. The availability of the contingency fund allowed APHIS to begin this intensive program in a timely manner, preventing the ticks from spreading further and potentially becoming established in the United States again.

Approximately 11 percent of the program's funding supports salaries and benefits, 70 percent is for contracts and agreements, and the remaining 19 percent is for other operating expenses such as postage, equipment, travel and supplies.

Pay (+$7,000)

The request includes a total of $7,000 to cover increases in pay for associated employees, of which $1,000 is for the annualization of the 1.3 percent 2016 pay increase and $6,000 is for the 1.6 percent increase in 2017.

Program reduction (-$1,000)
Operating costs for the program will be reduced by $1,000.

(l) An increase of $27,189,000 and 117 staff years for the Emergency Preparedness and Response program ($16,966,000 and 90 staff years available in 2016).

The Emergency Preparedness and Response (EPR) Program improves APHIS' capability to prevent, prepare for, respond to, and recover from animal and plant health emergencies. These emergencies range from small-scale incidents to catastrophic events caused by various hazards. This program also carries out specific preparedness and response functions outlined in the National Response Framework, which establishes how Federal response efforts are coordinated to support State, Tribal, and local authorities. In addition, APHIS provides technical support to the Federal Emergency Management Agency for the care of household pets and service animals during natural or man-made disasters. Further, the EPR program implements and oversees compliance with the *Public Health Security and Bioterrorism Preparedness Response Act of 2002*, which authorizes APHIS to regulate select agents or toxins that threaten animals, plants, or animal and plant products. These actions safeguard the health and value of U.S. agriculture.

The EPR program develops strategies and policies for incident management and response coordination, and maintains an animal health emergency reserve corps of approximately 3,000 private veterinarians, animal health technicians, and veterinary students. In addition, the program ensures that APHIS' emergency management policies, strategies, and responses meet national and international standards. This program's goal is to continue to respond to an animal health event within 24 hours from the time a decision is made to respond. Further, the program develops and makes available to State animal health officials and industry partners guidance documents covering the major components of an animal health emergency response. These documents support greater national preparedness and enable swift and efficient local responses. The EPR program coordinates investigations and disseminates information about suspected outbreaks of FADs and other animal health emergencies. The program also participates in joint Federal, State, and local animal health and all-hazards test exercises to improve response plans and capabilities, and perform reviews after exercises or actual incidents. These reviews lead to corrective action plans that are used to update national guidance documents and help States enhance their response plans. In addition, the EPR program facilitates planning sessions with all major commodity groups to develop business continuity plans that would ensure the continuous movement of livestock products during an animal health emergency.

Overall, approximately 85 percent of the program's funding supports salaries and benefits of personnel, 10 percent funds contracts and agreements, and the remainder supports normal operating costs such as travel, supplies, rent, and utilities.

In recent years, APHIS has responded to outbreaks of swine enteric coronavirus disease (SECD) and highly pathogenic avian influenza (HPAI) that have caused significant industry impacts. In FY 2015, APHIS worked with State and industry partners to eliminate the HPAI virus on 232 infected premises and depopulated, disposed, and appraised the value of approximately 50 million birds. The Agency deployed more than 700 employees and contracted more than 2,700 personnel to address this unprecedented outbreak. These and similar incidents have exposed areas that need critical improvements. APHIS was fortunate to receive emergency funding to address recent outbreaks, but now requires sustained funding to maintain a higher state of readiness. Emergency funds do not allow the Agency to backfill all weaknesses such as supporting ongoing expert, trained staff or capacities, or address problems quickly enough to keep pace with a new threat as it unfolds. It is essential to provide sufficient and sustained funding on a continued basis to make sure that capabilities are in place, established, and well-tested when threats arise.

While APHIS was prepared on some level to respond to the SECD and HPAI outbreaks, the Agency vitally needs enhanced preparedness. For many years, researchers have warned of the potential for an accelerated emergence and re-emergence of infectious diseases. Our Federal, State, Tribal, territorial, private sector, non-governmental organizations and other partners expect APHIS to continue leading emergency preparedness and response for foreign and emerging disease incidents, and providing support for other animal health events. Effective response to foreign and emerging animal health events requires advance and continuous preparation. This preparation must be detailed and followed with training and exercises to enable a rapid response when needed. The amount of movement and integration in animal industries makes it problematic to spend weeks after an outbreak begins to finalize implementation details. Expanded readiness will enable APHIS to respond more rapidly and effectively to emergency events, lessening the impact of those events on producers, consumers, taxpayers, and the overall economy. This initiative supports USDA's goal of ensuring access to safe, nutritious, balanced meals and protecting agricultural health by minimizing major diseases and pests.

Without the resources and infrastructure to adequately maintain and develop APHIS' readiness, the potential for foreign and emerging animal health events to have significant, negative consequences on food supplies, trade (valued at $261.7 billion in FY 2014 according to the USDA – Economic Research Service), and the overall U.S. economy will continue to increase. The requested increase consists of multiple components aimed at improving the Agency's animal health readiness capacity as follows.

- $21.013 million and 86 staff years to further improve the depth of trained response personnel

  Sufficient and sustained funding will ensure that capabilities are in place, established and well-tested when threats arise. APHIS will expand the breadth and depth of the Agency's readiness to detect, analyze, and respond to foreign and emerging animal health events. This initiative supports USDA's goal of ensuring access to safe, nutritious, balanced meals and protecting agricultural health by minimizing major diseases and pests.

  APHIS will use $20.04 million to build a more robust, optimally-staffed workforce and expand the Agency's readiness and response capabilities. When an animal disease of national concern is detected, the Agency needs to quickly conduct epidemiologic investigations to minimize the potential for continued spread of animal pathogens. The Agency has seen a reduction of more than 200 animal health professionals in the Veterinary Services organizational unit over the last decade. APHIS will hire veterinarians and animal health technicians, as well as safety and health officers, and biosecurity officers, to ensure additional depth in these capabilities. APHIS responders need thorough training and appropriate equipment to effectively exercise their response roles and responsibilities and reduce start-up time for operations during an animal health event. APHIS has developed an extensive library of response plans, including working with cooperators to develop continuity of business plans for use during outbreaks. The HPAI outbreak in FY 2015 revealed that the Agency must take planning to a greater level of granularity and must exercise the plans appropriately for the Agency's extensive library of response plans to be ready to implement. For example, while APHIS had the basic concepts for deploying members of the National Animal Health Emergency Response Corps (NAHERC – a voluntary pre-approved group of animal health professionals), it took weeks during the HPAI outbreak to determine deployment details. APHIS will determine the training and experience required to use the NAHERC as a reserve corps capable of deploying with less notice and training. APHIS will improve the number of responders and their level of training will enable us to reduce start-up times during emergencies, ensure a coordinated response, and quickly carry out investigations and response operations to minimize the potential for continued spread of animal pathogens. APHIS also will add greater detail to several of its activation and response plans, and more fully test the implementation readiness of these plans. The Agency will carry out response training and exercises to practice implementation of roles and responsibilities to ensure a coordinated response among internal and external stakeholder emergency responders. Also, in FY 2017, APHIS will train a core group of employees to serve in unit leader and branch chief roles. These individuals would deploy to incident management teams when they need a fuller complement of staff. The Agency also will develop and train Strike Teams and Task Forces to support response activities. In addition, APHIS will develop

physical standards for responders and expand training to address biosecurity scenarios. As a result of these efforts, the Agency will be able to develop procedures for two key response tasks and exercise them, and provide 2-4 additional training events.

APHIS will use $973,000 to train wildlife disease first responders. Wildlife disease biologists and specialists focus on disease detection and control of wildlife populations surrounding livestock disease outbreaks. These activities require specialized expertise in safely and humanely capturing, euthanizing, and sampling sensitive and dangerous wildlife species, as well as managing wildlife to exclude them from control zones (quarantined area of surveillance around an infected premise). The biologists will assist with cleaning and disinfection, depopulation, and case management during an animal health event. The Agency also will train State wildlife biologists to help detect and control diseases of agricultural concern in wildlife. The resource pool for quickly hiring temporary wildlife biologists with these specialized skill sets is limited; training of APHIS wildlife biologists will allow the Agency to maintain the necessary skills and certifications to quickly respond to animal health emergencies. There are less than 35 wildlife disease biologists throughout the entire United States dedicated to wildlife monitoring.

- $2.866 million and 8 staff years to enhance and develop resources and technologies for the early detection of foreign animal diseases (FADs) and emerging disease incidents in wildlife, and to develop tools and tactics to improve response options

  The Agency will work toward enhancing and developing resources and disease detection technologies for the early detection of FAD/emerging disease incidents in wildlife. Only a few technologies are currently available for the early detection of these incidents in environmental samples. Currently, no APHIS laboratory has the capacity to screen large numbers of wildlife samples. APHIS will expand its capacity to test wildlife samples collected during disease investigations by purchasing diagnostic equipment and hiring and training laboratory personnel. In addition, APHIS will broaden its investments in projects such as depopulation, disposal, and decontamination. These issues presented challenges to APHIS during the 2015 HPAI outbreak. To pursue the tools, APHIS will take advantage of research and development programs such as the Small Business Innovation Research Program to invest in the development of prototypes and scalable plans. In addition, the Agency will work on developing protocols to allow the use of National Guard mobile diagnostic laboratories during an emergency. A review of the feasibility of using these laboratories highlighted the lack of procedures available for quick implementation and the lack of current validated tests able to run on the equipment in these laboratories.

- $3.192 million and 16 staff years to enhance APHIS' Select Agents program

  The EPR program provides national leadership in managing select agents and toxins by monitoring and regulating registered entities that possess, use, or transfer them. By doing so, the program ensures the safe and secure importation and interstate transport of all other animal pathogens and ensures a better understanding of security, biosafety, and bio-containment concerns and practices by the scientific community. The program balances the statutory requirements to protect human, animal, plant, and animal and plant products with the need to allow research to advance and be productive. The Agency will hire personnel with strong scientific, standard-setting, security and policy backgrounds to handle continually evolving demands and fully carry out the inspection program. Currently, the program is unable to provide timely responses to customer requests to change their select agent registrations, and has only limited ability to meet the various demands to provide vital biosafety and biosecurity training and outreach. APHIS also must defer critical inspections due to competing resource needs for emergency responses, and is not sufficiently staffed to be able to efficiently accomplish its oversight activities. Without the requested funding, mission critical activities will continue to decline and could lead to disastrous select agent incidents affecting human health, animal and plant health, or the availability/security of animal and plant products.

Pay (+$138,000)

The request includes a total of $138,000 to cover increases in pay for associated employees, of which $29,000 is for the annualization of the 1.3 percent 2016 pay increase and $109,000 is for the 1.6 percent increase in 2017.

Program reduction (-$20,000)
Operating costs for the program will be reduced by $20,000.

Staff year redistribution (+7)

The request includes an increase of 7 staff years.

(2) An increase of $4,765,000 and a net decrease of 41 staff years for Safe Trade and International Technical Assistance:

(a) An increase of $4,652,000 and a net decrease of 10 staff years for the Agriculture Import/Export program ($15,099,000 and 94 staff years available in 2016).

APHIS works with other Federal agencies, States, foreign governments, industry, and academia to protect U.S. agriculture while facilitating the safe trade of animals and animal products. APHIS ensures that U.S. import requirements safeguard U.S. livestock health, and negotiate requirements for the export of U.S. animals and animal products worldwide. These requirements and negotiations are based on compliance with international standards, sound scientific principles, and fair trading practices. Moreover, APHIS sets quarantine, testing, and other requirements under which animals and animal products can be imported or exported. These requirements help ensure that global markets can be accessed, expanded, or maintained with little or no risk to U.S. animal production and human health.

As amended in the 2008 Farm Bill, the Lacey Act prohibits the importation of any plant - with limited exceptions - taken or traded in violation of domestic or international laws. The amendments were designed to address illegal logging in other countries. The Lacey Act requires a declaration for imported shipments of regulated products. The declaration requirement covers a broad range of products from lumber and wood pulp to sporting goods, pharmaceuticals, and planes. The declaration must state the genus, species, and country of origin of the product being imported as part of the included information. APHIS is working within an interagency group to implement the provisions. This group represents the U.S. Forest Service, U.S. Department of Justice, U.S. Department of State, U.S. Fish and Wildlife Service, the Council on Environmental Quality, and the U.S. Department of Commerce. APHIS and cooperating Agencies developed an implementation plan that phases in the declaration requirement; with the most complex products being added in later phases. APHIS is continuing to assemble a dedicated staff, to evaluate options for storing paper declarations, to provide outreach to industries and importers, and to develop a web-based system for collecting declarations. APHIS currently collects about 40,000 declarations per month but expects that number to increase to 1 million per month when the declaration requirements are fully phased in. Approximately 10 percent of these declarations are submitted on paper forms that require significant resources to analyze and store securely.

Imports

To facilitate imports, APHIS evaluates the animal health status of regions that wish to export animals and/or animal products to the United States. This evaluation process minimizes the risk of introducing animal diseases through importations. In FY 2015, APHIS completed several evaluations and published them in the *Federal Register*. These evaluations included finalizing the regulations for the import of fresh/frozen beef under certain conditions from 14 states in Brazil and northern Argentina. APHIS' science-based review is consistent with international trade requirements. In addition to detailed risk analyses of the regions, the Agency conducted five site visits in Brazil and Northern Argentina to confirm

that the regions' surveillance, prevention, and control measures are sufficient to minimize the likelihood of an introduction of foot-and-mouth disease (FMD) into the United States. APHIS recognized the animal health status of Croatia as free of FMD, rinderpest, and swine vesicular disease, as well as low risk for classical swine fever (CSF). In addition, APHIS added areas of the European Union to the list of regions affected with African swine fever, restricting imports from those regions. The Agency addressed import issues related to live animals and animal products arising at the ports, especially with regard to facilitating cattle imports from Mexico. In FY 2015, APHIS issued 17,043 import permits for live animals, animal products, organisms, and vectors. These include new permits, renewals, and amendments. APHIS processed an additional 294 permits for animal products that were placed on hold at the port of entry. Also in FY 2015, the Agency finalized a rule to recognize the State of Sonora in Mexico as free of fever ticks, and establish an exemption from certain tick treatment requirements. This action removed restrictions on the importation of cattle, and other ruminants, from Sonora and reduced the costs associated with tick dipping for those that import or export ruminants. APHIS is working to improve traceability of imported animals by implementing use of identification scanners at the border that will upload ear tag information into our traceability databases. APHIS continues to ensure that import regulations are effective and science-based. In response to the Highly Pathogenic Avian Influenza (HPAI) outbreak and the resultant U.S. egg shortage, the Agency finalized and approved, in conjunction with the Agricultural Marketing Service, certificates for the importation of shell eggs from the Netherlands, Greece, Italy, Latvia, Spain, France, Sweden, Poland, Portugal, and Argentina. Additionally, the Agency established a process to allow additional egg imports into the United States for breaking and pasteurization at APHIS approved establishments.

Exports

In FY 2014, the value of new or maintained export markets for animals and animal products was approximately $2 billion (Foreign Agricultural Service). To open, re-open, and maintain U.S. access to worldwide export markets, APHIS negotiates science-based conditions with trading partners for various commodities that protect their country while also facilitating trade. In FY 2015, APHIS negotiated or re-negotiated 154 export protocols for animal products (34 new markets, 8 expanded markets, and 112 retained markets), and 106 export protocols for live animals (34 new or reopened markets, 44 retained markets, and 28 expanded markets). Also, in FY 2015, APHIS opened new markets for cattle to Bolivia, Ecuador, Pakistan, Guatemala, as well as slaughter cattle to Mexico. APHIS conducted voluntary inspections of more than 500 U.S. manufacturing facilities to maintain, expand, or open export markets in many countries, including the European Union, Australia, Mexico, China, and others. APHIS participated in industry stakeholder meetings, provided technical support for World Trade Organization cases, and attended bilateral trade meetings with multiple countries. APHIS also developed information packages and questionnaire responses from various countries to maintain, expand, or open export markets. In FY 2015, the World Organisation for Animal Health officially recognized the United States as free of CSF without vaccination. This recognition further helps U.S. negotiators promote the export of our swine commodities. Several countries restrict U.S. exports of poultry, or poultry products, as a result of non-trade tariff barriers. This includes sanitary and phytosanitary issues that APHIS addresses, as well as food safety issues that the Food Safety and Inspection Service addresses. Concerns over HPAI and exotic Newcastle disease have caused some countries to refuse U.S. imports of fresh, frozen, and chilled poultry. In FY 2015, the HPAI outbreak significantly impacted the U.S. exports of poultry and poultry products. APHIS remains actively engaged with many countries to encourage removal of these restrictions as the HPAI outbreak is resolved. Over the course of the outbreak, 18 countries imposed restrictions on poultry and poultry products from the entire United States, 38 countries recognized the control measures taken during the outbreak and limited their restrictions to affected zones or States, and 100 other countries had no known restrictions established. APHIS' previous work with many countries regarding avian influenza helped mitigate the impacts of the HPAI trade effects. The Agency increased the number of export certificates issued electronically from 1,031 in FY 2014 to 4,668 in FY 2015 by expanding the system's capabilities. APHIS added digital signature capabilities and is working on bilateral pilot projects with Canada and Mexico to allow exports with digitally issued and signed certificates.

Overall, approximately 85 percent of the program's funding supports salaries and benefits of personnel and 1 percent funds contracts and agreements. The remaining supports normal operating costs such as travel, supplies, rent, and utilities.

Lacey Act (+$4,526,000 and 4 staff years)

APHIS requests an increase of $4,526,000 and 4 staff years to enhance implementation of the Lacey Act (for a total of about $6 million). Illegal logging is the leading cause of forest degradation worldwide and is in some cases linked to organized crime. A 2012 study by the United Nations Environmental Programme estimated the value of illegal logging, including processing, to be between $30 and $100 billion dollars, or 10 to 30 percent of the global wood trade. The Lacey Act amendments are designed to help combat this illegal logging by encouraging importers to research their supply chains and be aware of the laws governing products they purchase in other countries. One of the tools for fostering this awareness is the Lacey Act declaration requirement described above.

APHIS would use additional funds to enhance Lacey Act implementation by fully automating the current electronic and paper declaration reporting system, and by maximizing the number of products subject to review. APHIS began implementing the web-based Lacey Act Web Governance System (LAWGS) in September of 2014. LAWGS provides an easier, more efficient alternative for filing declarations and allows the Agency to analyze and monitor a larger portion of the declarations for compliance. Importers had to go through licensed customs brokers to file an electronic declaration or use a paper form prior to September 2014. APHIS now receives declarations through all three of these means.

With current resources, APHIS must focus on managing the volume of declarations and the program staff is only able to review a very small portion of the 40,000 declarations that are collected each month. APHIS would use the requested increase to enhance its Lacey Act systems and compliance capabilities. Enhancing these capabilities would allow APHIS to review declarations for accuracy and to streamline access to declarations for law enforcement agencies conducting investigations. This increase would APHIS to have electronic access to nearly 100 percent of the declarations. These enhancements would also allow APHIS to handle the increase in the volume of declarations that we expect as the requirement continues to be phased in for additional products. For example, APHIS would increase server capacity of LAWGS and would add modules for declarations collected through the Department of Homeland Security Customs and Border Protection and for scanned in copies of paper declarations. The program would also add analytical capabilities to allow the system to rapidly scan declarations and to look for obvious inconsistencies, such as mismatches between the genus and species and/or country of origin. These enhancements will allow APHIS to manage the increasing volume of declarations, to review additional declarations for errors, to catalogue a backlog of paper declarations, and to provide timely responses on declaration information to Federal enforcement partners requesting data to support investigations. APHIS would also use a portion of the increased budget to improve data analysis capabilities, to implement a compliance incident management system that would track allegations and observations of non-compliant declarations, to automate compliance correspondence, and to house all records and referrals for action. APHIS would also use a portion of the increased budget to work with interagency partners to improve methods to sample wood and wood products, and to use those samples to identify plant species. A further portion of these funds would be used to reach out to industry and government to host workshops on best practices, for international cooperation, and for using a web-based system for submitting electronic declarations. These improvements will enhance APHIS' Lacey Act implementation and enforcement efforts and help meet the Lacey Act goal of combating illegal logging in other countries. Value added in the forest industries would increase 2 percent in the United States with the elimination of illegal logging.

Pay (+$148,000)

The request includes $148,000 to cover increases in pay for associated employees, of which $31,000 is for the annualization of the 1.3 percent 2016 pay increase and $117,000 is for the 1.6 percent increase in 2017.

Program reduction (-$22,000)
Operating costs for the program will be reduced by $22,000.

Staff year redistribution (-14)

The request includes a decrease of 14 staff years.

(b) An increase of $113,000 and a decrease of 31 staff years for the Overseas Technical and Trade Operations program ($22,114,000 and 86 staff years available in 2016).

Agricultural trade continues to be a bright spot for the U.S. economy, with agricultural exports reaching an estimated $140 billion in FY 2015, according to USDA's Economic Research Service. APHIS plays a central role in resolving technical trade issues that affect export opportunities for U.S. producers, allowing U.S. companies to access new markets and be competitive in trade. APHIS officials – including headquarters personnel, field staff, and personnel stationed overseas – are critical to the success of these efforts. APHIS staff negotiate animal and plant health certification requirements, ensuring requirements are proportional to risk without being excessively restrictive; assist U.S. exporters in meeting foreign regulatory requirements; and provide technical information to support the safety of U.S. agricultural products destined for foreign markets.

Through the Overseas Technical and Trade Operations program, APHIS uses its technical expertise in animal and plant health to resolve sanitary and phytosanitary (SPS) issues that affect export opportunities for U.S. producers, allowing U.S. companies to be competitive in international trade and ensuring the fast and safe movement of agricultural exports. Specifically, the program opens, expands, and retains foreign markets for U.S. agriculture; monitors trading partners' SPS import conditions for U.S. agricultural products; ensures the smooth and safe movement of agricultural commodities to and from the United States; resolves technical issues affecting shipments of U.S. exports at foreign ports of entry by placing technical experts overseas; and, monitors emerging pest and disease situations to prevent the introduction of exotic animals, plant pests, and diseases to the United States, among other responsibilities. For example, in January 2015, APHIS assisted the U.S. Government in reaching an agreement with China to allow all U.S. grown apples into the Chinese market, valued at $100 million. These efforts resulted in high quality, fresh U.S. apples available for consumers in China and a boost for American apple producers. All together, these actions directly protect U.S. agriculture, expand international markets for U.S. exporters, and help generate more than one million jobs around the country. In FY 2015, APHIS' efforts to eliminate trade barriers and to ensure that trade decisions are based on science resulted in 171 resolved SPS trade-related issues and retained, expanded, or opened markets worth $2.5 billion for U.S. agricultural exports.

Working with other Federal partners, such as the U.S. Trade Representative's Office (USTR) and USDA's Foreign Agricultural Service (FAS), APHIS provides the technical expertise to successfully address animal and plant health regulatory issues associated with free trade negotiations. During the ongoing negotiations for the Trans-Pacific Partnership (TPP), APHIS employees provide technical support to address bilateral SPS issues with TPP partners and guidance to the U.S. government team regarding negotiating criteria for animal and plant health components of the agreement. This technical support is vital to ensuring that animal and plant health issues are resolved without undermining protection for U.S. agriculture. APHIS' participation in the negotiation ensures that the SPS framework incorporated into the agreement is compatible with U.S. animal and plant health policies, while promoting the export interests of U.S. agricultural producers. Additionally, APHIS provides similar assistance to the Trans-Atlantic Trade and Investment Partnership with European countries and works closely with the FAS, USTR, and other U.S. Government agencies to remove trade barriers between the European Union and the United States.

Agricultural trade is subject to costly disruptions from animal and plant health barriers. APHIS' technical trade and capacity building activities support food security and export opportunities to U.S. producers. The activities also provide safe, nutritious products like fruits, vegetables, and animal protein sources to international markets. APHIS is monitoring shifts in global trade trends and is aligning overseas officials to critical areas. Without this program, APHIS' ability to efficiently and effectively respond to SPS issues,

work with foreign counterparts and international organizations to protect the United States from foreign plant and animal pests and diseases, and support U.S. producers' exports would decrease. With continued resources, APHIS expects to retain, expand, and open markets worth at least $2.5 billion for U.S. agricultural products in FY 2017, and facilitate the release of 300 shipments.

Approximately 70 percent of the program's funding supports salaries and benefits of personnel, 15 percent represents contributions toward an agreement for the mandatory cost share with the Department of State for International Cooperative Administrative Support Services, and 15 percent is for other operating expenses including rent, utilities, and equipment.

Pay (+$133,000)

The request includes a total of $133,000 to cover increases in pay for associated employees, of which $28,000 is for the annualization of the 1.3 percent 2016 pay increase and $105,000 is for the 1.6 percent increase in 2017.

Program reduction (-$20,000)
Operating costs for the program will be reduced by $20,000.

Staff year redistribution (-31)

The request includes a decrease of 31 staff years.

(3) An increase of $294,000 and 12 staff years for Animal Welfare:

(a) An increase of $286,000 and 12 staff years for the Animal Welfare program ($28,410,000 and 220 staff years available in 2016).

APHIS' Animal Welfare program has the unique Federal role of ensuring the humane care and treatment of the more than two million animals covered by the Animal Welfare Act (AWA). Through its on-site inspections, educational efforts, and enforcement actions, the program ensures facilities licensed and registered by the USDA are adhering to the Federal animal welfare standards. The program assures these animals receive adequate humane care and treatment by conducting unannounced inspections to monitor compliance.

Before obtaining a license or registration, APHIS provides tailored materials and guidance, and conducts pre-license inspections to applicants to ensure they can meet the expectations set forth in the regulations. During the inspection process, APHIS confirms that the animals are provided adequate housing, transport, veterinary care, and meet husbandry standards as described in the AWA. In FY 2015, the program either conducted, or attempted to conduct, approximately 10,500 random-based inspections at more than 10,000 facilities located across the United States. APHIS also re-inspects animal welfare problem facilities, educates regulated entities, provides detailed training for inspectors, investigates complaints, and pursues civil penalties and other enforcement measures when necessary. These efforts have yielded impressive results: on average 95 percent of regulated entities have maintained compliance with the AWA over the past 5 years.

In addressing the regulated facilities that are not in substantial compliance, APHIS' Risk Based Inspection System flags high risk entities and the Agency conducts re-inspections for repeat noncompliance within 90 days to assess the welfare of the affected animals. To enhance the re-inspection process, APHIS is developing and implementing new techniques and approaches for those entities who have struggled to remain in compliance with the AWA. Examples of these new approaches include providing training and resources to struggling facility owners who have requested assistance in increasing their knowledge and skills on animal welfare. The Agency is also working to improve the working relationships between the regulated entities, and the attending veterinarians. A greater level of compliance results in decreased

numbers of re-inspections by APHIS inspectors, and ultimately, the improved welfare of animals. In FY 2015, APHIS worked with the Agricultural Research Service (ARS) to determine how to support their efforts in ensuring the humane care and treatment of animals used in ARS research facilities, including the U.S. Meat Animal Research Center in Clay Center, Nebraska. APHIS and ARS are working together to build an effective animal welfare inspection program for ARS facilities and ensure that these facilities are in full compliance with the AWA.

Whenever possible, APHIS takes a coordinated and collaborative approach to improving the welfare of animals. Working with State Departments of Agriculture, universities, industry groups, animal advocacy organizations, and noted experts from throughout the world, APHIS' Center for Animal Welfare conducts educational workshops, scientific seminars, and listening sessions to convey current, critical information regarding animal welfare. Because of the collaborations and the advancements being made at the Center for Animal Welfare, APHIS has been able to reduce inspection frequencies (while staying within legal requirements) for facilities that have implemented and documented strong animal welfare programs. This allows the Agency to remain focused on addressing the egregious violators of the AWA – who comprise five percent of all licensees/registrants. When necessary, APHIS exercises immediate deterrent options, such as letters of warning that may be published on the Internet. In responding to serious noncompliance, APHIS uses enforcement procedures that range from civil penalties, the issuance of "cease and desist" orders, the confiscation of animals, or license suspension and revocation.

The welfare of animals nationwide is subject to significant media attention and passionate public engagement. The American public holds APHIS accountable for ensuring all regulated animals are healthy and treated humanely. Should the Animal Welfare program not be funded, the Agency will no longer be able to enforce the AWA, and the health and safety of more than two million animals would be severely compromised.

Overall, approximately 90 percent of the program's funding supports salaries and benefits of personnel, one percent of funds are spent on contracts and agreements, and less than one percent on IT system costs. The remaining funds are used to support normal operating costs such as travel, supplies, rent, and utilities.

Pay (+$336,000)

The request includes a total of $336,000 to cover increases in pay for associated employees, of which $70,000 is for the annualization of the 1.3 percent 2016 pay increase and $266,000 is for the 1.6 percent increase in 2017.

Program reduction (-$50,000)
Operating costs for the program will be reduced by $50,000.

Staff year redistribution (+12)

The request includes an increase of 12 staff years.

(b) An increase of $8,000 for the Horse Protection Program ($697,000 and 6 staff years available in the 2016).

APHIS' Horse Protection program strives to eliminate the cruel and inhumane practice of soring, which is a technique used to irritate or blister a horse's forelegs through the injection or application of chemicals or mechanical irritants. Soring changes the gait of a horse so that the animal steps higher, thereby allowing its rider to gain a competitive edge and improve his/her chances of winning at horse events. APHIS upholds the Horse Protection Act (HPA) that prohibits sored horses from being shown, exhibited, sold or auctioned.

There are an estimated 200,000 Tennessee Walking and Racking Horses in the United States, with show winnings reaching as high as $2.5 million. Horse show sponsors and/or show management have statutory responsibility under the HPA to prevent unfair competition and must identify and disqualify sored horses.

APHIS helps ensure that the horses will not be subjected to the abusive practice of soring, and responsible horse owners and trainers will not face unfair competition from those who sore their horses. The Horse Protection program works collaboratively with the twelve Horse Industry Organizations to train and license the Designated Qualified Persons (DQPs) used to inspect horses for soring at all events covered by the HPA. In FY 2015, DQPs conducted 54,120 inspections of horses, and identified 246 violations at 305 horse show events.

The Horse Protection program employs its own inspectors to conduct unannounced inspections at horse shows, exhibitions, sales, and auctions, as well as evaluate the effectiveness of the DQPs. In FY 2015, APHIS inspected 7,883 horses at 50 horse events. Of those shows where APHIS was present, the Agency and the DQP's identified 509 violations. While conducting inspections, APHIS increased its use of objective diagnostic tools during inspections, including iris scanning and thermography.

Overall, approximately 40 percent of the program's funding supports salaries and benefits of personnel, 35 percent of funds are for travel, and 15 percent of funds are for contracts and agreements for sampling and testing of foreign substances used in soring. The remaining funding supports necessary equipment for completing programmatic functions.

Pay (+$9,000)

The request includes a total of $9,000 to cover increases in pay for associated employees, of which $2,000 is for the annualization of the 1.3 percent 2016 pay increase and $7,000 is for the 1.6 percent increase in 2017.

Program reduction (-$1,000)
Operating costs for the program will be reduced by $1,000.

(4) An increase of 5 staff years for Agency-Wide Programs:

(a) APHIS Information Technology Infrastructure program ($4,251,000 and 0 staff years available in 2016).

The APHIS Information Technology Infrastructure (AITI) program provides funding for the hardware, software (including licensing and supports costs) and telecommunications infrastructure that gives Agency employees office automation tools, Internet access, and access to mission-critical programs and administrative applications. The funding for this program supports the stable and secure information infrastructure for those mission-critical applications and the day-to-day business of APHIS. The AITI objectives and priorities are to: continually improve sharing of information across the Agency; improve coordination and accessibility of information, processes, and resources available to enable APHIS employees to provide day-to-day services, and support programs in emergencies; and improve APHIS' cyber-security.

APHIS works with USDA's Office of the Chief Information Officer to support the program goals and manage information technology in a manner consistent with both USDA and Federal requirements. APHIS also works with other Federal partners, including the Department of Homeland Security Customs and Border Protection and the Department of Health and Human Services Centers for Disease Control and Prevention to ensure that AITI provides interoperability and required availability for partner agencies, as needed for program delivery.

APHIS reviews system security patching rates for the APHIS Enterprise Infrastructure workstations and servers to determine the percentage of systems kept current with the latest security patches. In FY 2015, AITI ensured that the APHIS Computer Environment was reliable, accessible, stable, and secure. APHIS monitors the security controls associated with its IT infrastructure through a process called, Certification and Accreditation. Without continued dedicated funding, many of these services would need to be provided at the expense of other programs and activities.

While security is important to APHIS, accessibility to information technology tools is vital to the operations of the Agency. In FY 2015, AITI maintained its 99.97 percent availability for its key computing systems as well as a 20.6 minute service-desk response time for the occasions when personnel experience difficulties accessing computing systems. In support of the recent emergency efforts related to the avian influenza outbreak, AITI also extended its availability outside of the normal operational hours, on weekends, and holidays to ensure availability of systems. In addition, AITI re-emphasized the avoidance of misuse and/or abuse of IT systems to Agency employees, as a result of the 2015 Office of Personnel Management (OPM) security breach. AITI also provided capabilities to communicate with APHIS employees on the latest information regarding OPM's response to the breach.

AITI expenditures fund day-to-day operations for the Agency's IT infrastructure, with more than 75 percent of funds used to provide software license renewals and support. The remaining funds support normal operating costs, such as data center supplies and equipment.

(b) An increase of 5 staff years for the Physical and Operational Security program ($5,146,000 and 0 staff years available in 2016).

APHIS oversees and implements precautionary measures to ensure continued, efficient mission operations, and protection from disruption, degradation, or destruction of its facilities through the Physical and Operational Security (POS) program. These measures are essential for a safe and secure work environment. In addition, this program supports APHIS' contribution to the U.S. Department of State's continuing implementation of the Capital Security Cost Sharing (CSCS) program, which provides safe and secure workplaces for all U.S. government employees located overseas.

The POS program provides year-round security measures, such as physical security upgrades, alarms, badging and identification systems, guard services, security assessments, safety and risk assessments, workplace violence training, and investigations of both internal and external threats (those potentially made by employees and those coming from an external source). These measures protect employees, visitors, and stakeholders from violence and acts of terrorism. In FY 2015, the program provided 20 trainings to more than 1,600 Agency employees including self-defense seminars, security briefings and refreshers, operations in high threat foreign environments, travel briefings, workplace violence prevention, and training on personally identifiable information. To enhance preparedness and response, APHIS required Active Shooter training for all employees through on-line and classroom based training, and delivered an Active Shooter response exercise for approximately 700 employees in Riverdale, Maryland. This scenario-based training provided a dynamic, interactive exercise for APHIS employees, as well as law enforcement officers from 12 Federal, State, and local agencies. POS also ensures that all Agency personnel are annually trained on the proper safeguarding of classified information as required by Executive Order 13526, Classified National Security Information.

APHIS works with other USDA agencies, and Federal partners such as the Department of Justice, the Department of Homeland Security, the Department of State, and local law enforcement agencies, to ensure that the appropriate organization takes the lead, shares costs, and integrates security where co-location of employees exist. Without continued funding for a physically secure environment, the efficiency and effectiveness of all APHIS programs would be compromised. The costs associated with providing the services would need to be absorbed by each program. APHIS security specialists investigate threats and respond to requests for protection throughout the country for APHIS veterinarians and inspectors who are enforcing regulations in challenging environments. With regard to safeguarding APHIS employees entering private property, POS provided security during 41 inspections of regulated Animal Welfare Act entities, and five confiscations of animals from regulated entities in FY 2015. The program also provided security for Agency inspectors at 54 horse shows in nine States where APHIS conducted inspections related to the Horse Protection Act. In FY 2017, the POS program will continue to enhance security at APHIS' international facilities and provide protection for employees attending events, such as horse shows.

The Department of State continues to implement the CSCS program, which is part of a $17.5 billion effort

over a 19-year period, to construct 150 New Embassy Compounds (NECs). Since APHIS maintains a presence overseas to facilitate trade and monitor pest and disease threats, the Department of State requires the Agency to help fund the construction of the NECs based on the number of authorized positions. The cost-sharing program requires that each participating Agency provide funding for several years in advance of actual occupancy for its share of the costs for new, safe, and secure diplomatic facilities on the basis of the total overseas presence of the Agency. The NECs house APHIS employees in almost 30 countries around the world. In FY 2015, APHIS had 319 full-time employees based in countries around the world. This program provides safe and secure diplomatic facilities for the Agency's overseas personnel. If the program were not funded, these measures would continue to be implemented at the expense of other program operations because it is necessary to maintain a safe work environment.

APHIS operates the POS program in accordance with Homeland Security Presidential Directive (HSPD) 8 – National Preparedness, which strengthens the preparedness of the United States to prevent and respond to threatened or actual domestic terrorist attacks, major disasters, and other emergencies; HSPD 9 – Defense of United States Agriculture and Food, which establishes a national policy to defend the agriculture and food system against terrorist attacks, major disasters, and other emergencies; HSPD 12 – Policy for a Common Identification Standard for Federal Employees and Contractors, which establishes a mandatory government-wide standard for secure and reliable forms of identification issued by the Federal government to its employees; and the Secure Embassy Construction and Counterterrorism Act of 1999, which authorizes the Secretary of State to provide new, safe, and secure U.S. diplomatic facilities.

Approximately 95 percent of the funding is for contracts and agreements, including but not limited to security equipment and installations, guard services, protection operations, and mandatory cost share with the Department of State for the CSCS program. The remaining 5 percent is for other operating expenses such as travel and supplies.

Staff year redistribution (+5)

The request includes an increase of 5 staff years.

(c) Rent and Department of Homeland Security (DHS) Security Payments ($42,567,000 and 0 staff years available in 2016).

APHIS operates more than 700 facilities across the country in carrying out its mission of safeguarding the health and value of U.S. agriculture and natural resources. This funding currently supports rental payments associated with 236 General Services Administration (GSA) leases and DHS security payments at certain facilities. The funding for rental payments and DHS security costs ensures that APHIS programs can continue carrying out mission-related activities, including surveillance for animal and plant pests and diseases, pest and disease eradication programs, diagnostic and methods development work at laboratories, animal welfare inspections, and wildlife damage management activities. Without this funding, APHIS would have to reduce its activities and levels of service to cover rental payments.

Line item flexibilities to assist the Agency with managing its space portfolio

APHIS is requesting to remove "GSA" from the current line item title. Removal of the "GSA" restriction on the program/project/activity level appropriation will allow APHIS to strategically manage its portfolio of 236 GSA leased, 224 Agency leased, 30 owned, and approximately 250 agreement funded facilities holistically. These flexibilities will help APHIS on many levels, including consolidating leases where there currently are GSA leased and Agency leased facilities in the same locations, and covering unanticipated cost escalations in a given year for fluctuations in the Consumer Price Index and real estate tax adjustments. The Agency also would have flexibility to use the appropriation towards other facility related expenses and modifications, lease consolidations, and tenant improvement costs that may be necessary, specifically at the hub locations, while remaining focused on space reduction efforts. As a result of the flexibility, APHIS would be better positioned to meet the 7.5 percent space reduction effort and 150 square feet per person utilization rate requirements that the Office of Management and Budget and USDA

established to reduce the Federal footprint. Without the flexibility, the Agency will be unable to maximize its resources, will likely experience difficulties in meeting the requirements to reduce the Federal footprint, and will need to divert fiscal resources from programs to meet the space requirements.

Summary of Proposed Legislation

Program: Animal Welfare

Proposal: Establish a new user fee that would offset a portion of the appropriation for the enforcement of the Animal Welfare Act

Rationale: APHIS carries out activities designed to ensure the humane care and treatment of animals covered under the Animal Welfare Act. These activities include licensing and inspection of certain establishments that handle animals intended for biomedical research, sold as pets, transported in commerce, or used for exhibition purposes. Regulated entities already pay minimal fees for licenses, but they do not cover the full cost of the activity or the cost of the inspections.

Goal: A mandatory user fee would allow fees collected from regulated entities to be used to finance activities related to the review and maintenance of licenses and registrations, and inspections conducted under the Act.

Budget Impact: ($ in thousands)

	2016	2017	2018	2019	2020
Discretionary Budget Authority	0	$9,000	$12,261	$12,635	$13,027
Discretionary Outlays	0	8,550	12,098	12,166	12,844

Program: Biotechnology Regulatory Services

Proposal: Establish a new user fee that would supplement appropriations for the regulation of biotechnology derived products

Rationale: Under the authority of the Plant Protection Act, APHIS regulates the introduction—meaning the importation, interstate movement, and field-testing—of organisms derived through biotechnology that may pose a plant pest risk. APHIS reviews information and data, provided during an application process, to determine if the genetically engineered (GE) organism may pose a plant health risk during the requested activity. Following this review, APHIS may issue authorizations allowing the specific activity under appropriate confinement conditions to protect plant health. APHIS operates a compliance and inspection program to ensure developers meet conditions designed to confine GE organisms in the environment during field trials, importation and interstate movement. Additionally, APHIS evaluates petitions for the Agency to cease to regulate such organisms according to 7 CFR Part 340.

Goal: The authority will allow fees collected from the application process to finance activities related to the compliance management and inspection of those regulated biotechnology products under Agency review as well as petition reviews. APHIS would like to develop legislation using, as a guide, the authorities provided to other regulatory agencies.

Budget Impact: ($ in thousands)

	2016	2017	2018	2019	2020
Discretionary Budget Authority	0	$3,750	$5,109	$5,265	$5,428
Discretionary Outlays	0	3,563	5,041	5,069	5,352

Program: Veterinary Biologics

Proposal: Establish a new user fee that would supplement appropriations for the regulation of veterinary biologics products

Rationale: Under the authority of the Virus-Serum-Toxin Act of 1913 (P.L. 430 of 1913, as amended by 21 U.S.C. Section 151-158), APHIS regulates veterinary biologics (vaccines, bacterins, antisera, diagnostic kits, and other products of biological origin) to ensure that those products produced in or imported into the United States are not "worthless, contaminated, dangerous, or harmful." APHIS' licensing activities allow manufacturers to market their products. APHIS reviews license applications for production facilities and biological products, and operates a compliance and inspection program to ensure that its regulations governing veterinary biologics are met. Under this proposal, APHIS would amend its current authority to allow the collection of a user fee.

Many government agencies have used user fees to address funding gaps. Through the Animal Drug User Fee Act, the Food and Drug Administration (FDA) addressed serious financial constraints and supplemented its appropriated funding. APHIS would like to amend its current authority and develop legislation similar to FDA's Act to allow the collection of such a user fee. This fee would enable APHIS to continually adjust its resources invested in veterinary biologics licensing to the workload generated by the industry, which has steadily increased production and product development.

The industry would directly benefit as reductions in the time required to receive a license would enable the industry to recover the cost of product development faster. Consumers, who rely on veterinary biologics for animal health, whether in animal agriculture or the general public, would also benefit through decreased loss of animals from disease. In addition, the fee would better position APHIS to approve biologics during an animal health emergency.

Goal: APHIS seeks to ensure that veterinary biologic manufacturers comply with all laws, regulations, and policies. The user fee would act as a fee-for-service, where the industry would invest in APHIS to increase its ability to more quickly review product license requests. Additional performance enhancements may be achieved in areas such as licensing, testing, and product release turnaround times.

Budget Impact: ($ in thousands)

	2016	2017	2018	2019	2020
Discretionary Budget Authority	0	$6,750	$9,196	$9,476	$9,770
Discretionary Outlays	0	6,413	8,736	9,003	9,282

Salaries and Expenses

Geographic Breakdown of Obligations and Staff Years (SYs)
(Dollars in thousands)

State/Territory	2014 Actual		2015 Actual		2016 Enacted		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
UNITED STATES:								
Alabama	$4,413	24	$3,925	22	$6,154	23	$5,336	25
Alaska	477	2	525	2	528	2	560	2
Arizona	9,738	74	9,662	73	9,760	78	9,266	80
Arkansas	4,372	25	4,809	24	4,940	25	5,448	26
California	73,839	117	83,578	125	84,345	133	78,175	137
Colorado	53,622	292	62,116	331	64,901	456	67,243	373
Connecticut	1,501	7	1,539	7	1,549	8	1,600	8
Delaware	824	3	1,079	3	1,083	3	1,148	3
Florida	43,423	244	51,722	251	52,955	266	54,120	269
Georgia	5,936	32	5,791	32	5,834	34	6,372	35
Hawaii	24,214	269	23,305	264	24,415	287	26,036	293
Idaho	10,222	79	9,355	87	9,470	92	10,118	94
Illinois	3,481	23	3,238	23	3,269	25	3,555	26
Indiana	3,887	22	3,972	22	4,001	23	4,371	24
Iowa	72,995	330	467,373	373	132,870	495	84,033	415
Kansas	3,750	26	4,821	30	4,861	32	5,373	33
Kentucky	4,647	25	6,083	31	6,124	33	6,807	35
Louisiana	2,993	21	3,497	24	3,528	25	3,643	25
Maine	1,294	9	1,320	11	1,335	12	1,393	12
Maryland	199,459	1,150	489,035	914	223,546	1,096	226,259	1,002
Massachusetts	21,393	96	19,393	109	19,538	116	18,253	117
Michigan	7,220	49	8,781	51	8,849	54	9,011	57
Minnesota	20,807	121	150,511	157	52,300	194	27,184	169
Mississippi	7,150	37	6,205	39	8,366	46	8,872	49
Missouri	10,495	69	10,691	59	10,770	63	11,871	66
Montana	5,218	41	6,210	40	6,264	43	7,343	47
Nebraska	3,651	24	25,546	24	4,581	28	5,015	29
Nevada	2,117	19	2,449	21	2,478	23	2,612	23
New Hampshire	13,367	16	15,318	16	15,339	17	15,398	17
New Jersey	3,757	19	3,385	18	3,409	19	1,763	19
New Mexico	4,383	15	4,364	35	6,412	38	4,761	40
New York	24,571	114	23,887	117	24,042	124	24,684	126
North Carolina	28,000	148	35,660	188	37,539	198	38,952	202
North Dakota	3,384	20	4,637	20	4,663	21	4,909	22
Ohio	23,257	60	14,965	66	15,153	70	13,975	71
Oklahoma	4,292	32	4,414	30	4,554	32	4,951	33
Oregon	5,212	26	6,164	28	6,602	30	6,728	30
Pennsylvania	7,611	42	9,219	43	9,277	46	9,139	48
Rhode Island	587	2	333	1	334	1	357	1
South Carolina	3,254	19	3,185	20	3,211	21	3,438	21
South Dakota	2,247	15	12,344	16	2,865	17	3,262	18
Tennessee	5,179	32	6,082	34	6,127	36	6,636	37
Texas	48,280	242	58,293	287	50,908	305	57,045	326
Utah	5,984	42	6,084	41	7,427	54	7,193	54
Vermont	1,239	9	1,222	9	1,235	10	1,312	10
Virginia	8,897	22	10,047	25	10,081	27	10,486	28
Washington	6,498	27	7,953	29	8,414	32	8,303	33
West Virginia	2,378	16	2,360	18	2,384	19	2,441	19
Wisconsin	4,283	29	17,568	27	6,383	29	7,084	31
Wyoming	3,592	28	3,773	29	4,012	31	4,364	32

State/Territory	2014 Actual		2015 Actual		2016 Enacted		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
U.S. TERRITORIES:								
District of Columbia.....	17,965	90	15,251	81	16,311	82	16,969	83
Guam.....	676	-	459	-	459	-	459	-
Puerto Rico.....	7,938	99	9,878	104	10,028	106	10,349	111
Virgin Islands.....	88	-	98	-	98	-	98	-
INTERNATIONAL REGIONS								
AFRICA:								
South Africa.....	593	1	616	1	617	1	618	1
Senegal.....	329	1	468	-	468	-	469	-
Other.....	559	-	559	1	559	1	559	1
ASIA/PACIFIC:								
China.....	1,621	3	1,469	3	1,470	3	1,472	3
Japan.....	872	1	881	1	881	1	882	1
South Korea.....	461	1	316	-	316	-	316	-
Other.....	1,674	2	1,771	3	1,771	3	1,771	3
CARIBBEAN:								
Dominican Republic.....	585	-	664	1	664	1	667	1
Other.....	3	-	326	-	326	-	326	-
CENTRAL AMERICA:								
Guatemala.....	21,379	4	22,738	2	22,742	2	22,743	2
Panama.....	15,644	10	15,039	7	15,051	7	15,056	7
Other.....	795	-	976	1	976	1	976	1
EUROPE/NEAR EAST:								
Austria.....	210	-	294	-	294	-	295	-
Belgium.....	1,662	2	1,636	2	1,636	2	1,636	2
Other.....	1,241	2	790	2	790	2	790	2
NORTH AMERICA:								
Canada.....	93	-	25	-	25	-	25	-
Mexico.....	6,650	3	5,855	2	5,861	2	5,865	2
SOUTH AMERICA:								
Brazil.....	670	2	736	1	737	1	739	1
Chile.....	282	1	327	-	327	-	327	-
Other.....	2,132	1	2,488	2	2,488	2	2,488	2
Total direct obligations:	$897,512	4,428	$1,801,449	4,460	$1,073,881	5,109	$1,014,094	4,915

Note: Total direct obligations; does not include advances and reimbursements or Agricultural Quarantine Inspection User Fees.

Salaries and Expenses

Classification by Objects
(Dollars in thousands)

		2014 Actual	2015 Actual*	2016 Enacted	2017 Estimate
Personnel Compensation:					
Washington, DC		$78,506	$82,818	$92,249	$84,303
Field		235,517	248,455	308,832	298,893
11	Total personnel compensation	314,023	331,273	401,081	383,196
12	Personnel benefits	102,441	108,013	126,665	119,447
13	Benefits for former personnel	1,361	732	1,611	1,411
	Total, personnel comp. & benefits	417,825	440,018	529,357	504,054
Other Objects:					
21	Travel and transportation of personnel	19,914	30,148	25,561	25,386
22	Transportation of things	1,443	1,132	1,581	1,227
23	Rent payments, Comm. and Utilities	24,610	65,793	65,276	68,246
24	Printing and reproduction	605	1,099	563	593
25.0	Other contractual services	30,513	492,817	85,464	60,296
25.1	Contractual Services Performed by Other Federal Agencies	62,510	60,603	46,304	49,301
25.2	Related Expenditures	3,062	4,067	3,886	3,736
25.3	Repair, Alteration or Maintenance of Equipment, Furniture or Structure	6,588	10,822	7,197	7,697
25.4	Contractual Services - Other	36,306	61,033	15,204	15,458
25.5	Agreements	201,363	346,069	191,840	194,114
25.6	IT Services and Supplies	2,141	2,425	8,290	4,790
25.7	Operation and maintenance of equipment	9,160	10,001	7,702	8,102
25.8	Subsistence and support of persons	618	959	1,651	1,751
26	Supplies and materials	44,742	45,607	40,196	41,483
31	Equipment	30,171	26,279	23,793	23,103
32	Land and Structure	1,073	240	220	220
41	Grants, subsidies and contributions	1,589	1,051	1,927	1,863
42	Insurance claims and indemnities	3,245	201,261	17,835	2,395
43	Interest and Dividends	34	25	34	34
	Total, other objects	479,687	1,361,431	544,524	510,040
99.9	Total direct obligations	897,512	1,801,449	1,073,881	1,014,094
DHS Building Security Payments (included in 23.0)		-	2,018	2,215	2,281
Position Data:					
Average Salary, ES positions		$164,032	$165,672	$168,157	$170,848
Average Salary, GS positions		$87,225	$88,097	$89,418	$90,580
Average Grade, GS positions		10.60	10.65	10.70	10.75

Note: Total direct obligations does not include advances and reimbursements or Agricultural Quarantine Inspection User Fees.
*Fiscal Year 2015 actuals include obligations from the transfer of emergency funding from the Commodity Credit Corporation.

Shared Funding Projects
(Dollars in thousands)

	2014 Actual	2015 Actual	2016 Enacted	2017 Estimate
Working Capital Fund:				
Administration:				
HR Enterprise System Management	-	-	$86	$86
Beltsville Service	$1,056	$919	961	966
Mail and Reproduction	116	124	166	171
Integrated Procurement	1,372	1,524	1,618	1,619
Procurement Operations	3	479	29	27
Subtotal	2,547	3,046	2,860	2,869
Communications:				
Creative Media & Broadcast Center	170	124	244	81
Correspondence Management:				
Correspondence Management	268	804	772	1184
Finance and Management:				
NFC/USDA	2,067	2,054	2,078	1,992
Financial Management Services	6,203	6,234	6,389	6,437
Internal Control support Services	112	119	123	133
Subtotal	8,382	8,407	8,590	8,562
Information Technology:				
NITC/USDA	5,213	5,866	3,542	3,845
International Technology Services	2	3	1	1
Client Technology Services	427	403	202	202
Telecommunications Services	1,166	1,069	1,257	1,699
Subtotal	6,808	7,341	5,002	5,747
Total, Working Capital Fund	18,175	19,722	17,468	18,443
Department Shared Cost Programs:				
1890's USDA Initiatives	214	203	214	214
Advisory committee Liaison Services	4	5	6	6
Classified National Security Information	-	73	77	77
Continuity of Operations Planning	147	155	155	155
Emergency Operations Center	169	165	172	172
Facility and Infrastructure Review and Assessment	32	33	33	33
Faith-Based Initiatives and Neighborhood Partnerships	16	28	29	29
Federal bio-Based Preferred Procurement Program	25	-	-	-
Hispanic-Serving Institutions National Program	146	133	145	145
Honor Awards	6	6	6	6
Human Resources Transformation (Inc. Diversity Council)	125	125	129	129
Identity & Access Management (HSPD-12)	492	494	494	494
Medical Services	56	12	15	15
People's Garden	42	53	48	48
Personnel and document Security	180	152	153	153
Pre-authorizing Funding	264	277	272	272
Retirement Processor/Web Application	42	44	44	44
Sign Language Interpreter Services	90	-	-	-
TARGET Center	66	102	106	106
USDA 1994 Program	55	53	57	57
Virtual University	142	145	146	146
Visitor Information Center	17	-	-	-
Total, Department Shared Cost Programs	2,330	2,258	2,301	2,301

	2014 Actual	2015 Actual	2016 Enacted	2017 Estimate
E-Gov:				
Budget Formulation and Execution Line of Business	7	7	6	6
Enterprise Human Resources Integration	164	154	142	142
E-Rulemaking	75	58	45	55
E-Training	203	203	195	-
Financial Management Line of Business	13	12	11	10
Geospatial Line of Business	-	-	16	13
Grants.gov	-	-	28	1
Human Resources Line of Business	20	20	20	20
Integrated Acquisition Environment - Loans and Grants	139	138	138	135
Integrated Acquisition Environment	49	49	-	-
Total, E-Gov	670	641	601	382
Agency Total	21,175	22,621	20,370	21,126

STATUS OF PROGRAMS

Salaries and Expenses

SAFEGUARDING AND EMERGENCY PREPAREDNESS/RESPONSE

Current activities: Together with its stakeholders, APHIS promotes the health of animal and plant resources to ensure abundant agricultural products and services for U.S. customers. APHIS monitors and responds to potential acts of agricultural bio-terrorism, invasive species, diseases of wildlife and livestock, and conflicts between humans and wildlife as it strives to assure its stakeholders that it is on guard against the introduction or re-emergence of animal and plant pests and diseases that could limit agricultural production.

When a pest or disease is detected in the United States, APHIS works cooperatively with other Federal, State, Tribal and industry partners to conduct plant and animal health monitoring programs to rapidly diagnose them and determine if there is a need to establish new pest or disease management programs. APHIS, in conjunction with States, Tribes, industry, and other stakeholders, protects American agriculture by eradicating harmful pests and diseases or, where eradication is not feasible, by minimizing their economic impact. The Agency monitors endemic pests and diseases through surveys to detect their location and through inspection to prevent their spread into non-infested parts of the country.

The Agency maintains a cadre of trained professionals prepared to respond immediately to potential animal and plant health emergencies. Program personnel investigate reports of suspected exotic pests and diseases and take emergency action if necessary. To facilitate these efforts, APHIS develops pathway studies and thoroughly investigates the progression of outbreaks to determine the origin of plant and animal pests and diseases. APHIS also actively engages State, Tribal, and local governments, and industries to advance their emergency preparedness and response capabilities.

Through its Wildlife Services Program, APHIS protects agriculture from detrimental animal predators through identification, demonstration, and application of the most appropriate methods of control. APHIS also develops methods to control animals and pests that are detrimental to agriculture, wildlife, and public safety. The Agency's regulatory structure brings the benefits of genetic research to the marketplace, while protecting against the release of potentially harmful organisms into the environment. APHIS also conducts diagnostic laboratory activities that support the Agency's veterinary disease prevention, detection, control, and eradication programs. The Agency also provides and directs technology development in coordination with other groups in APHIS to support plant protection programs of the Agency and its cooperators at the State, national, and international levels.

Selected Examples of Recent Progress - Animal Health:

1. Animal Health Technical Services

APHIS' Animal Health Technical Services Program enhances the tools available for acquiring and managing information vital for maintaining and improving global market access. Incorporating national surveillance data standards into data management applications enables animal health information, which Federal, State, Tribal, and private individuals enter in multiple systems, to be compiled nationally, thus leveraging the work of animal health professionals nationwide to meet local, State, and national veterinary health objectives. Private veterinarians, trained and accredited by APHIS, help producers meet export requirements and disease program standards, allowing U.S. animals and animal products to compete in the global economy. Disease transmission and spread models, developed and shared by the Agency, allow improved planning and management of animal health incidents.

Animal Disease Traceability (ADT)

The national ADT framework allows Federal, State, Tribal, and private animal health professionals to work together to identify diseased animals, quickly trace their movements, and control disease spread to protect the livestock

industry, whose production value was approximately $85 billion in 2014 (National Agricultural Statistics Service, USDA). Knowing where diseased and at-risk animals are located helps preserve animal health; reduce animal illnesses and deaths if outbreaks occur; ensure a rapid response in case of an animal disease event; and decrease the cost to producers, consumers, and the government. Such a system also assures our trading partners that USDA is committed and able to rapidly contain an animal disease event.

This program continues to progress toward developing a system that is effective, flexible, and increases the timeliness of retrieving traceability data. Each year, APHIS provides cooperative agreement funds to States to help them establish and maintain their own ADT programs. At the end of FY 2015, 100 percent of States receiving cooperative agreement funds had an ADT strategic plan in place, compared with 89 percent at the end of FY 2014. In addition, in FY 2015, APHIS continued to work with States and industries to increase the availability of electronic interstate certificates of veterinary inspection (ICVI), which are the primary documents, used to obtain animal movement information. This practice minimizes the regulatory burden on producers when they ship livestock to other States. ICVIs are easier to search than paper documents and increase the efficiency of animal health officials. In addition, APHIS has worked to increase producers' choice of, and access to, official identification devices. Collecting accurate and complete identification information at slaughter is vital to the success of traceability efforts.

APHIS measures success based on the ADT Program's ability to trace animals during disease events. The Agency has established a national baseline tracing capability by evaluating activities that animal health officials typically conduct during an investigation of livestock that have moved interstate. The activities measure the time needed to answer four specific questions:

1. In what State was an imported animal officially identified?
2. Where in the State was the animal officially identified?
3. From what State was an animal shipped?
4. From what location was an exported animal shipped?

States, in collaboration with APHIS, administer test exercises that involve answering the questions to assess the effectiveness of the program's implementation. The duration, or lapsed time, is measured when completing an exercise. The start time is when the State is notified of the official identification number, and the end time is when the State finds the information to answer one of the questions.

The following table provides the comparison of the first year results captured in FY 2015, to the national baselines established in 2014. The total number of records received and traces completed are used to reflect the percentage of time information was successfully retrieved to answer the question. For example, the national baseline values indicate that information was successfully retrieved 69 percent of the time when answering where in the State the animal was officially identified. In the first year comparison, this value increased to 88 percent. Additionally, the number of hours it took to retrieve the information decreased from 88 hours to 35 hours.

First Year Comparison to National Baseline Values

Performance Activity Description	National Baseline[1]		1st Year Comparison[2]		Baseline and 1st Year Average
	Percent Successful	Time to Retrieve Information	Percent Successful	Time to Retrieve Information	
1. In what State was an imported animal officially identified?	N/A	N/A	88%	39 hr.	---
2. Where in the State was the animal officially identified?	69%	88 hr.	88%	35 hr.	62 hr.
3. From what State was an animal shipped?	58%	138 hr.	85%	42 hr.	90 hr.
4. From what location was an exported animal shipped?	76%	264 hr.	88%	46 hr.	155 hr.

The emphasis APHIS has placed on record keeping systems to retrieve data associated with the performance measures has resulted in a favorable trend for improved and timelier traceability. The data used for the national baseline[1] values reflects the time taken to retrieve information prior to the implementation of the ADT. The events associated with establishing the national baseline values reflect events from 2009, 2010, and 2011 (date of tags applied and distributed, and the date of interstate shipment). For the first year comparison[2], event records from 2012, 2013, and 2014 were primarily selected. Therefore, the first year comparison is based on records that are much more current, which would likely make those records more readily available. As APHIS and States continue to improve record keeping processes - both internally and with accredited veterinarians, tagging sites, tag manufactures, etc. – the program expects the traceability measures to be maintained or improved. Additionally, the increased use of electronic record keeping systems will decrease the time required for searching records to trace livestock. The ongoing administration of the exercises will help document continued progress, as well as identify possible limitations to the current ADT infrastructure.

The traceability rule, establishing general regulations for improving the traceability of U.S. livestock moving interstate, took effect on March 11, 2013. This rule provides States with the flexibility to implement traceability solutions that work best for their local producers. It requires the official identification of covered livestock and a defined movement document, unless the livestock is specifically exempted. In FY 2015, APHIS continued to make education and communication of the traceability rule a priority and implemented enforcement actions to ensure high compliance levels. For individuals who continue to violate the regulation requirements, APHIS formally documents their non-compliance, helps them meet the requirements, and in some cases pursues penalties. The final rule exempted beef cattle less than 18 months of age from the official identification requirement unless they are moved interstate for shows, exhibitions, rodeos, or recreational events. This was done because many producers felt this aspect of the rule would impede marketing. Beef cattle at that age are lower risk, since they do not frequently move or change ownership. For species other than cattle, the rule largely maintains and builds on the identification requirements of existing disease program regulations.

Information Management

APHIS develops new information management systems, and maintains and improves existing data systems and applications. APHIS makes these systems available to States and Tribal Nations, who then use them to support their traceability plans and other animal health activities. The following are examples of how APHIS maintained and improved applications and data systems in FY 2015.

The Surveillance Collaboration Services (SCS) serves as the Agency's national animal health surveillance system. This year, the program:

- Increased data records by 13 percent to a new total of 723,765,333 in FY 2015.
- Implemented the Laboratory Threshold Engine (LTE), a new module that provides for a rules-driven, real-time answer to the question, "should these samples be collected and tested?" based on epidemiologically established surveillance thresholds. The module prevents expensive over- collection/sampling of test samples.
- Deployed IBM Cognos Query Studio to allow for ad-hoc reporting. The tool provides the ability for epidemiologists to custom design reports from SCS data marts. Advanced filtering, sorting, and crosstab capabilities allows users to further peer into their data.

The Emergency Management Response Services 2.0 system provides the Agency capability for field data entry, the import of laboratory test results, and interaction with the animal disease traceability system. In FY 2015, the system supported the response to the highly pathogenic avian influenza (HPAI) outbreak by providing the automation of the collection, management, and reporting of data from animal disease investigations and animal disease outbreak incidents. USDA personnel from other program areas were also able to retrieve information from the system for epidemiological and spatial analysis of the HPAI events.

The Veterinary Services Processing Streamlining system serves to safeguard our nation's animal food supply by enhancing APHIS' ability to track animal and animal product imports, exports, and domestic movements. APHIS added digital signature enhancements to forms included in the Live Animal Import module. These enhancements support the Presidential initiative for implementing digital signature for electronic transactions.

The Laboratory Messaging Service (LMS) is a centralized repository for laboratory test results. Once enhancements to the LMS are complete, the system will integrate with the SCS LTE described above. This year, APHIS:

- Received more than 287,000 test result messages from sixteen laboratories regarding seven different diseases, which is an increase of thirteen participating laboratories and four new diseases since FY 2014.
- Received electronic test results faster. For example, the average time between the test dates for swine enteric coronavirus diseases, or HPAI, and when the LMS and the EMRS systems received the result was less than two days; improving the process by three days.

Modeling

APHIS uses models to improve the understanding of historical events, estimate future consequences, and inform strategic, logistical, and budgetary decisions by evaluating the effectiveness of varying interventions. In FY 2015, the Agency continued developing and using models for contingency planning, evaluating potential control strategies, estimating potential consequences of disease introduction and spread, designing surveillance and control programs, and prioritizing interventions and supporting resource management and allocation. Among other activities conducted in this area, APHIS analyzed the HPAI outbreak, occurring from December 2014 to June 2015, in the United States, examining mechanisms of disease spread and economic impacts of the outbreak as well as comparing alternative control strategies such as improved detection of disease, increased biosecurity measures, and vaccination in the event of future outbreaks.

APHIS also conducted modeling on a broader range of disease scenarios to support strategic placement of National Veterinary Stockpile resources, optimal laboratory capacity discussions for the National Animal Health Laboratory Network, and foot-and-mouth disease (FMD) vaccination strategy considerations. In addition, the Agency updated the North American Animal Disease Spread Model to become the Animal Disease Simulation Model with enhancements such as compatibility with cloud processing, modernization in application architecture, processing efficiency, increased data storage, improved user experience, and expanded visualizations of output, as well as additional vaccination functionality. Lastly, the U.S. Animal Movement Model, developed to simulate county-to-county cattle movement in the United States, and the U.S. Disease Outbreak Simulation Model, which currently models FMD spread to due local spread factors or national scale cattle movement, underwent a third party review. The reviewers concluded the models were an effective use of limited resources and commended the novel approach to a complex problem.

National Veterinary Accreditation Program (NVAP)

More than 65,000 highly-trained accredited veterinarians act as the first line of defense for reportable domestic and foreign animal diseases. The voluntary NVAP authorizes private veterinary practitioners to work cooperatively with Federal veterinarians and State animal health officials to report when these diseases are suspected. This provides the first step in rapid diagnosis, quarantine, and other control measures to safeguard our nation's animal and human health. Accredited veterinarians also provide official animal, flock, and herd health certifications, disease testing, and traceability practices for millions of animals each year. Three-year training and renewal requirements, which began in 2011, provide increased knowledge of animal disease surveillance, prevention, zoonosis, and disaster preparedness. In FY 2015, more than 20,000 accredited veterinarians successfully renewed their accreditation. APHIS now hosts 25 web-based supplemental training modules for accredited veterinarians, and is on schedule to complete 2 additional modules in FY 2016. Since FY 2011, accredited veterinarians have completed approximately 327,000 web modules, with more than 20,000 modules completed at veterinary conferences nationwide.

2. Aquatic Animal Health

The Aquatic Animal Health program protects the health of farm-raised aquatic animals and supports the U.S. aquaculture industries by facilitating and leveraging domestic and international trade. This program protects the animal health of the U.S. aquaculture industry, valued at $1.4 billion in 2013 (National Agricultural Statistics Service, 2013 Census of Aquaculture). This program carries out activities consistent with the National Aquatic Animal Health Plan (NAAHP) by providing national coordination, surveillance, and testing for high-consequence

aquatic animal diseases. The NAAHP is a set of principles and recommendations regarding the health of aquatic animal resources. APHIS, the National Oceanic and Atmospheric Administration (NOAA), and the U.S. Fish and Wildlife Service (FWS) are responsible for overseeing aquatic animal health. These agencies developed and signed the NAAHP with input from key stakeholders, including the National Aquaculture Association and several State agencies involved with aquaculture. These agencies are working with industry to prioritize NAAHP elements and develop an implementation plan for related activities to meet the plan's objectives.

This program relies heavily on collaborations with other agencies to protect the health and value of aquatic animals. In FY 2015, APHIS worked with the National Aquaculture Association to continue developing Commercial Aquaculture Health Program Standards (CAHPS). This voluntary, non-regulatory effort will help position commercial producers in domestic and international trade markets, and help the commercial aquaculture industry demonstrate adherence to sound practices for aquatic animal health. In FY 2015, APHIS and the National Aquaculture Association refined CAHPS principles and concepts, and created outreach and focus groups to gather stakeholder input that will inform further refinement and development of the standards. In addition, in FY 2015, APHIS continued working with the Virginia Institute of Marine Sciences, the Rutgers University Haskins Shellfish Research Laboratories, the New Jersey Sea Grant Consortium, and the Virginia Sea Grant to address disease-related impediments to shellfish commerce in the eastern United States. The entities established key working groups to develop and pilot select solutions (e.g., hatchery certification standards, regional database, and a regional advisory board) from commercial, regulatory, and pathology/scientific community perspectives.

Infectious salmon anemia virus is a highly infectious disease causing acute mortality primarily in Atlantic salmon. In FY 2015, APHIS continued a two-year surveillance study involving wild and farmed salmon in Alaska and Washington State. As part of this study, the Agency worked with NOAA, FWS, the U.S. Geological Survey, the States of Washington and Alaska, and the Northwest Indian Fisheries Commission to determine the risk that infectious salmon anemia virus poses to wild Pacific salmon and coastal economies. As of October 1, 2015, all samples have tested negative for the virus. APHIS anticipates completing a final report on this study by June 2016. In FY 2015, APHIS also conducted a project to identify the challenges and costs to U.S. aquaculture industries resulting from domestic and international requirements for the verification of aquatic animal health. This project involved surveying bait and sport fish producers (up to 100 percent of this industry sector) to determine current and projected regulatory costs and challenges. Results from this project support the need to harmonize existing regulations and demonstrate how a CAHPS program, when modeled by States, could facilitate this process.

In FY 2015, APHIS and the National Animal Health Laboratory Network completed Phase 1 of the initiative to incorporate aquatic animal pathogen diagnostic testing under the Network. This phase involved inviting Network laboratories to add protocols for viral hemorrhagic septicemia virus and infectious salmon anemia virus assays to their testing repertoire and completing proficiency testing. Thirteen Network laboratories registered to participate with 8 other Network laboratories (a total of 15 participants involved) in a proficiency panel regarding real-time polymerase chain reaction. In addition, 22 participants from 11 laboratories registered for the viral hemorrhagic septicemia virus panel. All results reported for both viruses had correct interpretations. This means that appropriate controls were used to ensure that the tests were not skewed by false-positive or false-negative results. Incorporating this testing into the Network will help standardize aquatic animal pathogen testing, which is a primary element and goal of the NAAHP. Therefore, this activity would be prioritized through the NAAHP effort.

Also in FY 2015, this program completed updates to the aquaculture modules for the National Veterinary Accreditation Program. The program also began work on an additional module with new material to meet continuing education requirements for veterinarians.

3. Avian Health

The Avian Health Program protects the U.S. poultry industry, valued at $48.3 billion in 2014 (USDA- National Agricultural Statistics Service), while facilitating agricultural trade in poultry and poultry products. This program consists of the avian influenza (AI) prevention and control program, the National Poultry Improvement Plan (NPIP), the avian health and management studies, disease threat planning and response, comprehensive poultry disease surveillance, and zoonotic disease prevention and response. APHIS' surveillance programs detect foreign, zoonotic, and domestic diseases that could substantially impact domestic production and the economy. Surveillance

information can facilitate trade and protect public health by demonstrating that certain diseases do not exist in the poultry populations. The Agency also maintains regulations and national program standards and guidelines that direct avian health activities at the Federal, State, and Tribal levels. Maintaining these standards supports interstate and international commerce by providing assurances regarding the health of avian species and products being moved or traded.

Surveillance, Prevention, and Control of Avian Diseases

National Poultry Improvement Plan and the Live Bird Marketing System Monitoring

The NPIP is a cooperative Federal-State-industry program through which diagnostic technology can be used to guard against disease incursion and enhance the marketability of poultry and poultry products. The NPIP has 48 States participating in the AI prevention and control program, with participation from more than 95 percent of commercial broiler, turkey, and egg industries and the entire commercial poultry breeding industry. In addition, the NPIP has 98 authorized laboratories with trained technicians approved to provide diagnostic testing, which is a reduction from 110 laboratories in FY 2014. The reduction is most likely due to certain States not meeting NPIP regulatory requirements and others consolidating their laboratory systems. In September 2014, the NPIP completed a service review of NPIP-authorized laboratories. These reviews last for a year and are conducted every three years. The reviews assess aspects such as check test proficiency, technician training, laboratory protocol, and State site visits. In addition, each State conducts annual reviews of the laboratories. The response rate was 100 percent. Follow-up reviews were conducted in September 2015, and 100 percent of laboratories requiring corrective action were in full compliance. In response to increased demand and to accommodate the trained technician requirement in the Federal regulation regarding authorized NPIP laboratories, the NPIP hosted six workshops in FY 2015, compared with five the previous year. In addition, the NPIP has partnered with stakeholders to provide a more diverse pool of site locations and scientific expertise for future workshops. Of the workshops conducted in FY 2015, two were held in new locations.

The Live Bird Marketing System (LBMS) has 36 States and the U.S. Virgin Islands participating in the AI prevention and control program. LBMS is a marketing strategy used to supply fresh poultry meat to consumers. In most cases live poultry is delivered to LBM establishments and consumers select the bird(s) of their choice. State cooperators help conduct surveillance and diagnostic activities for the LBMS and the commercial poultry industry. LBMS testing is vital to prevent and control the disease in markets, but also among production premises and poultry distributors that supply those markets. As of September 30, 2015, the Agency performed approximately 38,878 tests for AI surveillance in the LBMS. Complete FY 2015 data will be available after the cooperative agreements with States conclude on March 31, 2016. Tests included agar gel immunodiffusion, real-time reverse-transcriptase polymerase chain reaction (rRT-PCR), antigen capture immunoassay, and virus isolation. For virus isolation and rRT-PCR, each sample may represent 5 or 11 individual swabs pooled for a composite single sample/test.

Low Pathogenicity Avian Influenza Control Program

APHIS conducts surveillance for AI in commercial poultry under the National H5 and H7 Low Pathogenicity Avian Influenza (LPAI) Control Program. Although most of the testing is performed locally, APHIS' National Veterinary Services Laboratories (NVSL) provides reagents for some tests and performs confirmation and identification testing of presumptive positive specimens. As of September 30, 2015, APHIS performed approximately 660,255 tests for AI surveillance through the NPIP in FY 2015. Complete data for FY 2015 will be available after the cooperative agreements with States conclude on March 31, 2016. Since the H5/H7 LPAI LBMS prevention and control program began in 2004, the number of LBMS H5 and H7 AI positive premises has decreased steadily to a single detection of LPAI H5N1 virus in a New Jersey live bird market. The virus was characterized as H5N1 North American lineage LPAI based on partial HA/NA sequence, cleavage site analysis, and chicken inoculation and is different from the Eurasian/AM H5N1 virus detected in a wild bird in Washington in December of 2014. The positive premises was depopulated, cleaned, and disinfected according to established standards. In addition, APHIS led the Wild Bird Avian Influenza Steering Committee, comprised of State and Federal partners, to develop and initiate the Enhanced Pacific Flyway Avian Influenza surveillance plan.

Internationally, APHIS works with organizations such as the World Organisation for Animal Health (OIE), the Food and Agriculture Organization (FAO) of the United Nations, and the OIE/FAO Network of Expertise on AI to rapidly identify and respond to AI. In FY 2015, APHIS delivered 11 capacity-building activities in the United States and overseas. A total of 388 government officials from Africa, the Middle East, and the Western Hemisphere participated in these workshops. These activities included training veterinarians from Ghana and West Africa in proper sample collection for highly pathogenic avian influenza (HPAI) and instructing veterinarians from 17 countries on how to respond to an HPAI outbreak and safely dispose of infected materials. Other activities included a course in molecular diagnostics of avian diseases for South American countries, which taught participants to diagnose and respond faster to a poultry disease outbreak, and veterinary epidemiology training for veterinarians in India to enhance their understanding of the concepts of zoonotic animal diseases.

AI Clean Compartment Classification

In FY 2015, APHIS continued working intensively with primary breeders in the United States to establish the U.S. H5/H7 AI Clean Compartment Classification (AICCC) for defined subpopulations of primary breeding turkeys and modified AICCCs for defined subpopulations of primary egg-type breeding chickens and primary meat-type breeding chickens. These classifications are based on OIE compartmentalization guidelines. If these AICCCs were internationally recognized, they would add an option for producers to ensure uninterrupted trade in breeding establishment flocks and products in case of an AI outbreak. In FY 2015, the NPIP held several meetings with the primary breeders and APHIS to draft compartmentalization management guidelines, audit checklists, auditor requirements, and associated applications. Establishing the H5/H7 AICCC for primary breeding turkeys and modifying the existing AICCC for primary breeding egg-type chickens and meat-type chickens will give producers additional options for international trade if the compartments are internationally recognized.

Other Significant Poultry Disease and Foreign Animal Diseases

To protect the U.S. poultry industries, APHIS works with local, State, Tribal, and Federal government agencies and food and agriculture industries to develop and implement AI emergency preparedness and response capability and planning. To ensure the poultry industry maintains its competitiveness worldwide, it is essential to quickly detect and address endemic, emerging and foreign disease threats. To address these threats, APHIS is developing comprehensive surveillance activities to optimize sampling strategies and minimize the costs to achieve surveillance goals. These strategies pertain to AI; emerging diseases; and other zoonotic diseases of concern such as salmonellosis, mycoplasmosis, infectious bronchitis, very virulent infectious bursal disease, and infectious laryngotracheitis. In FY 2015, APHIS funded State efforts to test for other significant poultry diseases including *Mycoplasma gallisepticum*, *Mycoplasma synoviae, Salmonella pullorum*, *Salmonella enteriditis*, infectious bursal disease, and infectious laryngotracheitis. These activities enable the United States to certify to our trading partners that many classes of poultry originate from flocks that are monitored or free of diseases.

In FY 2015, APHIS continued projects to study eight avian diseases (including AI and Newcastle) by collecting approximately 7,821 wild bird samples from sites across the United States. Of these, 4,000 were tested for AI, and added to the Wildlife Services National Wildlife Disease Tissue Archive at Colorado State University. In addition, APHIS worked with Colorado State, Washington State, Iowa State, Mississippi Universities, as well as the Pennsylvania state diagnostic lab to study AI to improve poultry risk assessments. Further, APHIS conducted research about the ecology of Newcastle disease and arboviruses such as equine encephalitis, West Nile, Turlock, and St. Louis encephalitis viruses in collaboration with Texas A&M University Medical Branch.

APHIS serves in a liaison capacity between State and local officials and exhibitors regulated by the Animal Welfare Act to enhance coordination on foreign animal disease outbreak preparedness initiatives. These initiatives have included an HPAI pilot surveillance program in zoos using the National Animal Health Laboratory Network system, an online teaching module for zoo personnel on disease monitoring, an HPAI outbreak management plan for exhibitors, and the creation of an extensive collection of best practices emergency preparedness guidance documents designed by over 60 subject matter experts. Through a partnership with the University of Illinois Veterinary School and the Association of Zoos and Aquariums, APHIS supported in-person and virtual tabletop exercises evaluating the use of APHIS guidance and the channels of communication between representatives from State and Federal emergency management agencies, zoos, academia, and industry. In addition, the Agency supported efforts by the

North Carolina Department of Agriculture to focus on creating training programs for industry and government to use foam technology to mass depopulate poultry in response to disease outbreaks. The Agency continues to support the University of Delaware's work on developing technology for the mass depopulation of poultry using high expansion water-based foaming unit with a disinfectant carrier. APHIS supported training and certification on the National Incident Management System Incident Command System (ICS) for zoo personnel in FY 2015 to enhance understanding and communication between zoos and emergency responders. APHIS' support of such training has encouraged the Association of Zoos and Aquariums to establish the Zoo and Aquariums All-Hazard Preparedness (ZAAHP) Fusion Center. The ZAAHP serves as a centralized resource for disaster preparedness for the zoological community through collection and analysis of existing resources such as the ICS model for emergency response.

In FY 2015, APHIS worked to exclude HPAI from the United States through enforcement efforts. The Agency initiated eight cases involving avian health issues. In addition, the Agency concluded an investigation that resulted in the seizure of two illegally imported birds, and received an administrative decision and order assessing a $1,100 penalty against an individual who failed to obtain proper veterinary certificates for two birds moving from Mexico into the United States, and failing to present the birds for inspection at the port of entry.

While the United States has the best surveillance system to protect avian health, we faced the worst animal health emergency in FY 2015 when wild, migratory birds introduced HPAI through the Pacific, Central, and Mississippi flyways. APHIS spent approximately $829 million in emergency funding transfers from USDA's Commodity Credit Corporation to rapidly address nationwide cases of HPAI to safeguard U.S. poultry and egg producers and reduce its effects on both agriculture and public health. During FY 2015, APHIS confirmed 232 cases of HPAI in 21 States. The cases were in 211 commercial and 21 backyard poultry flocks, and approximately 50 million birds were destroyed.

Modeling

APHIS uses models to improve the understanding of historical events, estimate future consequences, and inform strategic, logistical, and budgetary decisions by evaluating the effectiveness of varying interventions. In FY 2015, the Agency continued developing and using models for contingency planning, evaluating potential control strategies, estimating potential consequences of disease introduction and spread, designing surveillance and control programs, and prioritizing interventions and supporting resource management and allocation. Regarding avian health issues, APHIS analyzed the HPAI outbreak, examining mechanisms of disease spread and economic impacts of the outbreak as well as comparing alternative control strategies such as improved detection of disease, increased biosecurity measures, and vaccination in the event of future outbreaks.

International Avian Health Activities

Overseas, APHIS facilitates agricultural trade, maintains contact with agricultural officials, monitors agricultural health, and supports efforts in sanitary and phytosanitary standard setting. The Agency works closely with the USDA Foreign Agricultural Service and the U.S. Trade Representative's Office to maintain a coordinated, strategic approach to resolving avian health issues that affect U.S. exports. In addition, APHIS works closely with the OIE and other international organizations to assist with disease prevention, management, and eradication activities in regions affected with HPAI. Assisting other countries reduces the risk of the disease spreading from overseas to the United States. To open markets for U.S. poultry, APHIS negotiates protocols for trade of poultry and related products. When markets close to certain States or regions in response to LPAI detections, APHIS provides science-based rationales to reopen the market, coordinates informational visits and exchanges, facilitates the U.S. industry's access to foreign decision-makers, and participates in negotiations.

In addition, APHIS sponsors the Crisis Management Center for Animal Health at the Food and Agriculture Organization of the United Nations. This Center is an emergency response branch of FAO's Animal Health Services that helps countries respond to and contain animal disease threats. It provides assessments, guidance, and resources to enable rapid response to animal disease outbreaks such as HPAI in countries where the United States would have difficulties placing personnel or responding bilaterally. This approach reduces the threat of disease outbreaks such as AI from becoming widespread and potentially a pandemic event. In addition, APHIS ensures that our trading partners adhere to the Sanitary and Phytosanitary rules set forth by the World Trade Organization, as

well as the other relevant international standards-setting organizations, as the United States and FAO-Rome expand their cooperating relationships and establish new partnerships.

4. Cattle Health

The Cattle Health Program protects cattle health and improves the quality, productivity, and economic viability of the U.S. cattle industry, which was valued at $81 billion for 2014 (National Agricultural Statistics Service). The program goal is to (1) rapidly detect diseases that could significantly affect the U.S. cattle and bison population and harm the economy and human and/or environmental health, and (2) to prevent the spread of any newly detected, devastating disease in the United States as well as endemic domestic cattle and bison diseases of concern. APHIS activities include surveillance and monitoring, disease prevention, disease investigation, and outbreak response actions. In addition, APHIS maintains regulations, national program standards, and guidelines that direct activities at the Federal, State, and Tribal level. Maintaining these standards is a vital Federal responsibility that supports interstate and international commerce by providing assurances about the health of animals and products being moved or traded.

In FY 2015, APHIS conducted surveillance for foreign, emerging, and endemic diseases, including bovine tuberculosis (TB), brucellosis, and bovine spongiform encephalopathy (BSE). The Agency also conducted surveillance for disease vectors, such as the cattle fever tick (CFT), through cattle testing at slaughter facilities, livestock markets, shows, sales, buying stations (first point testing), on-farm, and at rendering facilities (operations that collect dead, dying, disabled, and diseased animals). APHIS also continued working with neighboring countries to exclude foot-and-mouth disease (FMD), screwworm, and other cattle diseases in FY 2015.

Bovine TB primarily affects cattle, but occurs in other animal species as well. APHIS' surveillance for this disease includes testing live cattle and using slaughter surveillance data from the USDA's Food Safety and Inspection Service. Since 1917, the bovine TB program has decreased the prevalence of this disease in U.S. livestock to less than 0.001 percent. In FY 2015, 182 Federal and State-inspected slaughter establishments submitted 6,340 samples for program testing. Through this surveillance, the program detected TB in ten animals, one adult dairy cow over 2 years of age and nine cases in feeder cattle.

The Cattle Health Program has five State bovine TB classifications. A higher prevalence rate results in more restrictive movement requirements. The classifications are, in descending order: accredited free, modified accredited advanced, modified accredited, accreditation preparatory, and non-accredited. APHIS uses a mix of depopulation and test-and-removal strategies to address bovine TB-affected herds that considers herd size, potential indemnity costs, State and owner preferences, genetics, and the probability of removing infection. In FY 2015, APHIS identified five TB affected herds in the United States: three Texas dairies, and a dairy and small beef herd in Michigan. The Michigan herd was depopulated. One Texas dairy and the Michigan dairy will be depopulated in FY 2016. (In addition to using appropriated funding from the Cattle Health line item, the Secretary of Agriculture transferred approximately $18 million from the Commodity Credit Corporation to address eradication needs in Texas and Michigan.) The remaining two Texas dairies are under a test-and-remove management protocol, which requires the removal of test-positive animals from the herd while it remains under quarantine. This allows owners to maintain a viable herd while mitigating the risk of TB transmission. The dairies will be depopulated because of the challenges of ensuring all infected animals are removed when a relatively high level of infection exists. At the end of FY 2015, 48 States, 2 Territories, and 1 zone were TB accredited free, including Puerto Rico and the U.S. Virgin Islands. California was classified as modified accredited advanced. Michigan is composed of two classification zones: accredited free and modified accredited status.

Bovine brucellosis is an infectious disease that can cause decreased milk production, weight loss, abortions, infertility, and lameness, and negatively impact the livelihood of cattle producers and the supply of meat and dairy products. The Federal-State brucellosis eradication effort has eradicated bovine brucellosis from domestic cattle and bison herds. All 50 States, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands have been Class-Free since July 2009. Class-Free States with brucellosis in wildlife, or continued detections of brucellosis-affected herds, work with APHIS to implement a State brucellosis management plan (BMP). Each BMP explains the basis for the area identified in the BMP; describes the epidemiologic assessment and surveillance activities to determine if wildlife populations are affected; and describes surveillance activities and mitigation activities for cattle, bison, and

wildlife. In FY 2015, APHIS tested approximately 2 million head of cattle under the Market Cattle Identification slaughter surveillance program and cattle at livestock markets. The Agency also tests cattle and domestic bison on farms or ranches for movement, private sale, issue of herd certification, and for show or exhibition purposes. In FY 2015, approximately 861,138 calves and 228,866 adult cattle were vaccinated for brucellosis, and approximately 513 herds were certified as brucellosis-free cattle herds (compared to 276 herds in FY 2014). Since many producers no longer have to incur the cost of maintaining annual whole herd testing for certification, the number of certified-free herds varies year to year based on the producers' need for livestock movement. Accredited veterinarians perform most of the vaccinations and the collection of samples, with APHIS performing the rest. State laboratories test the samples.

In FY 2015, two brucellosis affected cattle herds were detected within Montana's designated surveillance area as a result of Designated Surveillance Area Herd Plan testing. Three bison herds, one each in Idaho, Montana and Wyoming, remain under quarantine with affected-herd management plans, which include movement controls and testing. The Idaho and Wyoming herds will be released from quarantine this winter or next spring, if the result of their third whole test is negative. There is no indication that brucellosis has spread outside the Greater Yellowstone Area. This area is APHIS' main focus for brucellosis in livestock because the disease is endemic there in wild elk and bison. The Agency continued carrying out the national bovine brucellosis slaughter surveillance plan to increase the efficiency of this surveillance stream. From FY 2009 to FY 2015, APHIS has reduced the number of slaughter surveillance samples collected for brucellosis from 7.3 million to approximately 2.0 million. To further improve efficiencies, APHIS consolidated laboratory testing and established a standardized testing protocol. These changes enable the Agency to focus resources where disease risk is greatest, meet international surveillance standards, and maintain the integrity of U.S. export products.

In 2015, APHIS drafted a proposed comprehensive brucellosis and bovine TB rule that the Agency expects to be published in the *Federal Register* by the end of 2015; however, a publication date has not been specified. This rule is designed to modernize program regulations and reduce administrative burdens placed on producers while maintaining cattle health, consumer confidence, and trade opportunities. The documents are predicated on: the regulatory framework developed by a joint TB and Brucellosis Regulatory Working Group published in the *Federal Register* in May 2011; the comments received regarding the proposed rule; and, FY 2011 and FY 2012 stakeholder feedback.

APHIS also continues to conduct surveillance for BSE, a progressive and fatal neurologic disease of cattle. APHIS' BSE surveillance effort is designed to detect one BSE case in one million adult cattle with 95 percent confidence. This goal exceeds the standard required by the World Organisation for Animal Health (OIE). The Agency's surveillance approach includes testing samples from slaughter, livestock markets, farms, rendering facilities, and diagnostic laboratories. The testing at livestock markets is done on tissue from down or disabled cattle that are euthanized at these markets to remove them from live animal commerce. This approach enables APHIS to document the BSE prevalence level and assess any change in the BSE status of cattle. In FY 2015, APHIS tested approximately 41,000 samples for BSE, with no new cases detected. According to the OIE, the United States has a negligible risk status for transmitting BSE. In FY 2016, APHIS plans to modify the BSE surveillance efforts to reduce the overall cost while maintaining surveillance at levels that continue to exceed international standards.

Cattle fever is a disease transmitted by ticks that caused losses to the 1906 cattle industry equivalent to more than $3 billion in today's dollars. The Agency focuses on controlling the spread of tick species that transmit the infectious agent. Tick surveillance includes inspection of livestock before they leave quarantined areas, surveillance at local markets, inspection of hunter-killed white-tailed deer and other exotic ungulates, and horseback river trail patrols to capture stray and smuggled Mexican livestock who may carry ticks into the United States. In FY 2015, APHIS conducted 20,610 inspections of individual premises for ticks, including 4,498 river trail patrols. Also in FY 2015, APHIS identified 29 newly infested premises inside the buffer zone, 14 more than in FY 2014. Further, there were 28 newly affected premises at the end of FY 2015 outside the border – 16 more than FY 2014. In addition, 23 of 286 stray cattle captured along the border were infested with CFT. None of the 40 stray horses/mules were infested.

Although the United States is free of cattle fever, there is a permanent quarantine buffer zone between Texas and Mexico. Bordering Mexican states harbor tick species, which carry the disease, and tick-infested white-tailed deer and exotic hoofed mammals near the U.S./Mexico border can bring the ticks into the United States. APHIS controls

CFT along the quarantine line using a partial tick control barrier fence, livestock movement quarantines, and tick treatments for cattle and deer. To prevent the spread and re-establishment of the tick vectors, the program designated a permanent quarantine area along 500 miles of the Mexican border from the Gulf of Mexico to Del Rio, Texas, and established a cooperative Federal-State program. To release a quarantine area, every infested premise must have all cattle treated for at least nine months, including inspections and treatments every two weeks. As a result, APHIS conducted 115,420 individual animal inspections and 62,750 treatments throughout South Texas. In FY 2015, the quarantine buffer zone and the free area of Texas contained 57 newly quarantined premises, compared to 27 in FY 2014.

In October 2014, the Texas Animal Health Commission (TAHC) and the USDA confirmed the presence of CFT on Cameron County premises located outside of the permanent quarantine zone. To protect the land, premises, and animals from exposure to CFT, the TAHC created a temporary preventative quarantine area (TPQA) in Cameron County, which became effective October 7. Surveillance efforts have been ongoing since the TPQA went into effect. The TPQA originally started with six new premises located outside the permanent quarantine zone. To date, there are 20 infested premises that have been identified in the TPQA that consists of approximately 223,000 acres. In FY 2015, APHIS continued to work with a small South Texas livestock feed company to register a product with the Food and Drug Administration to control the spread of CFT and is currently restricted to certain premises. In addition, APHIS is working with the TAHC, the Agricultural Research Service (ARS), and a major veterinary pharmaceutical company to evaluate an anti-tick vaccine for cattle within the permanent quarantine buffer zone in South Texas with a plan to expand to a larger population. A joint APHIS/ARS field safety evaluation trial with the experimental vaccine began on November 25, 2014, and is ongoing. As a result of these detections, APHIS used $2.387 million from the Agency contingency fund to eradicate the CFT outbreak in Cameron and Willacy Counties, Texas, in FY 2015.

APHIS and its cooperators have eradicated screwworm from the United States, Mexico, Belize, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, and Panama. APHIS' international efforts prevent the reestablishment of screwworm in the United States by working with Colombia, Panama, Mexico, and Central American countries to maintain a screwworm-free barrier zone in the Darien Gap, a narrow 102-mile stretch of jungle along the border of Colombia and Panama. The program relies on field operations and sterile insect technique, a process where APHIS breeds insects at a joint facility in Panama and releases them into the wild to mate with wild insects, thereby preventing reproduction. This is a proven method to reduce insect populations. The United States also has access to those sterile flies in the event of an outbreak in U.S. territory. APHIS produces approximately 15 million sterile flies per week at its Panama rearing facility. In FY 2015, there were 19 detections in the Darien Gap and no outbreaks or detections of screwworm infestations in Panama north of the barrier zone.

To help address threats of potential introduction of other cattle diseases from overseas, APHIS maintains offices in foreign countries staffed with veterinarians and other agricultural specialists to monitor the presence of those diseases. They report to veterinary staff in other countries that are charged with making determinations on the movement of commodities to the United States. APHIS personnel also work with countries to build capacity and offer assistance to foreign counterparts experiencing outbreaks. In FY 2015, APHIS entered into a cooperative agreement with the International Regional Organization for Agricultural Health (OIRSA) to conduct specific targeted cattle surveillance in Central America. The goal of the agreement is to prevent the spread of Screwworm and vesicular diseases, specifically FMD, if they were introduced into Central America. Through this agreement, OIRSA will assist Central American governments to take samples and maintain a laboratory for quick diagnosis of disease samples.

5. Equine, Cervid and Small Ruminant Health

The Equine, Cervid, and Small Ruminant Health (ECSRH) program protects the health and improves the quality, productivity, and economic viability of the equine, cervid, sheep, and goat industries. APHIS activities include monitoring and surveillance, investigation and response, and disease prevention and preparedness actions taken when health issues are identified. The Agency's monitoring and surveillance activities detect foreign, emerging, zoonotic, and domestic diseases that could substantially impact the economy. APHIS also works with international and domestic trading partners to facilitate safe trade in equine, cervids, and small ruminants and their products and ensure that cases of diseases of trade concern are reported to the World Organisation for Animal Health. In 2015,

the ECSRH Program conducted disease surveillance and/or monitoring for the following diseases: scrapie, bovine tuberculosis (bTB), chronic wasting disease (CWD), vesicular stomatitis virus, contagious equine metritis, Eastern equine encephalitis, Western equine encephalitis, equine herpes virus, equine piroplasmosis, equine infectious anemia, and West Nile virus.

The National Scrapie Eradication Program (NSEP) focuses on improving the health of national sheep flocks and goat herds, relieving sheep and goat producers of scrapie-associated economic losses and increasing international marketing opportunities. Since 2003, the percentage of positive scrapie sheep found at slaughter has decreased by 98 percent. In FY 2015, APHIS tested 40,862 samples from sheep and goats for scrapie, compared to 48,102 samples tested in FY 2014. This decrease was largely due to APHIS' redirection of field personnel as part of the highly pathogenic avian influenza response. Also in that response, this program assisted in the epidemiological investigation and cleanup of four flocks in which the program traced scrapie-positive animals and associated trace forward flocks. At the end of FY 2015, the percent of cull sheep found positive at slaughter and adjusted for face color was 0.004 percent compared to 0.019 percent in FY 2014. In addition, the first positive goats were found through slaughter surveillance in FY 2015. Based on the goats sampled at slaughter and tested as of September 30, 2015, the prevalence of scrapie in U.S. cull goats is 0.004. At the end of FY 2015, 441 flocks were enrolled in the Scrapie Free Flock Certification Program (SFCP). Of these, 22 were export certified (i.e., the flock demonstrated it was free of scrapie), 142 were export monitored (i.e., the producers were working to demonstrate freedom from scrapie), and 277 were select monitored (i.e., the producers were observing animals for signs of scrapie and testing a specified number to demonstrate reduced risk for scrapie). Participation in the SFCP enables producers to enhance the marketability of their animals by protecting them from scrapie. The transition to the revised SFCP program, initiated in June 2013, is complete, and the program is now providing a greater amount of flock level surveillance for the eradication program.

On September 10, 2015, APHIS published a proposed rule in the *Federal Register* to amend NSEP regulations. The main changes include aligning similar identification and recordkeeping requirements for sheep and goat owners; formalizing the use of genetic testing to assign risk levels to sheep; and providing the APHIS Administrator with the authority to relieve requirements for sheep and goats exposed to scrapie types that do not pose a significant risk of transmission. APHIS is seeking comments on the proposed rule through November 9, 2015. The Agency anticipates that a more flexible approach to disease investigations and affected flock management, and more consistent animal identification and recordkeeping requirements, will increase the effectiveness of the eradication program. APHIS is also seeking comments on the draft NSEP standards through November 9, 2015. These standards contain cooperative procedures and standards that APHIS has adopted for eradicating classical scrapie from the United States. They are intended to help State and Federal animal health personnel implement the NSEP consistently and equitably. They are designed for the prevention, monitoring, and eradication of classical scrapie disease from domestic sheep flocks and goat herds.

APHIS also established a voluntary herd accreditation program for bTB. To aid in the eradication of bTB, APHIS provides a voluntary herd accreditation program for captive cervids and requires testing of cervids before interstate movement. In FY 2015, the program tested 15,486 animals and identified 62 bTB suspects and 23 animals as bTB reactors. The program necropsied thirty animals that cultured negative for *Mycobacterium bovis*, while one culture is pending. Although no new bTB cases in captive cervids were detected in FY 2015, two captive cervid herds in Michigan remain under an indefinite quarantine since testing positive in 2009. The herds are located in an area where free-ranging white-tailed deer are a reservoir for bTB. APHIS is working with the State of Michigan to mitigate the risk of transmission from this wildlife reservoir to livestock. Further, APHIS drafted a proposed bTB/brucellosis rule that includes interstate testing requirements for captive cervids, and provides a comprehensive, flexible, and risk-based approach for managing bTB and brucellosis. The Agency expects the rule to be published in the *Federal Register* by the end of calendar year 2015; however, a publication date has not been specified.

APHIS' voluntary national CWD Herd Certification Plan (HCP) helps States, Tribes, and the cervid industry control CWD in farmed cervids by allowing the interstate movement only from certified herds considered to be low risk. Currently, 30 States participate in the national CWD HCP: 29 have Approved Status and 1 has Provisional Approved Status. States that meet the CWD HCP requirements have Approved Status and States that do not meet CWD HCP program requirements but have developed a work plan and time frame with APHIS to complete those requirements have Provisional Approved Status. In FY 2015, the program tested approximately 20,000 farmed

cervids for CWD and identified eight new CWD positive farmed white-tailed deer herds – one in Utah, one in Pennsylvania, two in Ohio, two in Wisconsin, and two in Texas. APHIS depopulated five of these herds (Pennsylvania, Utah, and one each in Wisconsin, Texas, and Ohio). Six elk herds in Colorado, four elk herds in Nebraska, one white-tailed deer herd in Wisconsin and one white-tailed deer herd in Texas remained in quarantine at the end of FY 2015. APHIS also provided indemnity for and was the lead agency for the depopulation and disposal of four large CWD infected farmed cervid herds in Pennsylvania, Ohio, Utah, and Texas. In cooperation with the National Agricultural Statistics Service, APHIS conducted the first national study of the U.S. farmed-cervid industry in FY 2015. The study provides baseline industry statistics, a description of production practices and challenges, producer-reported disease occurrences, and an overview of health management and biosecurity practices.

APHIS protects the equine industry by helping State animal health officials monitor equine diseases that threaten animal and human health. In FY 2015, positive detections identified during routine surveillance for equine infectious anemia, and equine piroplasmosis led to investigations and responses to those diseases in all cases identified. APHIS also provided laboratory certification and annual proficiency testing for more than 400 equine infectious anemia laboratories and approval for 19 equine viral arteritis laboratories, 12 equine piroplasmosis laboratories, and 17 contagious equine metritis laboratories. In addition, APHIS continued surveillance activities in all States for vesicular stomatitis virus. In the 2014 outbreak, more than 1,600 samples were submitted for vesicular stomatitis virus testing and, in the 2015 outbreak (ongoing), more than 1,200 samples have been submitted for vesicular stomatitis virus testing as of October 1, 2015. APHIS also assisted in the reporting of equine cases of arboviral (i.e., virus transmitted via mosquitoes or fleas) diseases, including Eastern equine encephalitis, Western equine encephalitis and West Nile virus.

6. National Veterinary Stockpile

The National Veterinary Stockpile (NVS) is a component of APHIS' Surveillance Preparedness and Response Services Logistics Center. NVS serves as the primary source of materials, supplies, and equipment for the response to, control of, and containment of significant animal disease outbreaks, including foreign animal disease threats. The objective of the NVS is to deploy materials, and other countermeasures, within 24 hours of detection, and to help States, tribes, and territories request, receive, process, and distribute countermeasures during an incident. In preparation for the response to an incident, NVS conducts outreach with these partners to develop their logistical plans, conduct logistical training, and conduct full scale logistical test exercises.

In FY 2015, NVS procured the Rift Valley Fever vaccine, Classical Swine Fever vaccine (which differentiates infected from vaccinated animals), and additional poultry depopulation equipment. During FY 2015, APHIS awarded contracts to two companies to manufacture doses of avian influenza vaccine to be added to the stockpile. NVS also replaced expired inventory, such as the 24-Hour Push Packs, which consists of personal protective equipment (PPE) and decontamination supplies, and acquired additional bulk PPE.

The NVS program also sought opportunities to lead, support, or coordinate activities focused on NVS promotion and preparedness in Wisconsin, Florida, Idaho, Missouri, and Puerto Rico. As a result, more Federal, State, Tribe, and Territory officials are prepared to respond logistically to an animal disease outbreak. In addition to outreach activities, NVS partnered internally with other Agency logistics personnel to conduct training to improve communication, collaboration, and integration during a logistics emergency response. These activities enabled the program, as well as participating stakeholders and partners, to refine their preparedness procedures.

Throughout FY 2015, NVS continued to coordinate training and exercises to prepare APHIS personnel and stakeholders to respond to damaging animal disease outbreaks. For example, NVS conducted three training events at the University of Delaware, which provided hands-on training in the preparation, deployment, and operation of foam depopulation technology used during this year's highly pathogenic avian influenza (HPAI) outbreak. This training allowed the NVS program and its partners to refine their skills before deployment. Further, during the HPAI outbreak, the program leveraged its existing Disposal, Depopulation, and Decontamination (3D) contracts to deploy a large number of personnel, thereby demonstrating the program's ability to provide surge capacity for large incidents. The 3D contractors, numbering more than 3,000, significantly contributed to the Agency's response efforts.

7. Swine Health

The Swine Health Program protects the health and improves the quality, productivity, and economic viability of the swine industry. The 2014 production value of the swine industry was approximately $24.2 billion (National Agricultural Statistics Service). In addition, the program facilitates trade in swine and pork products, and addresses swine health issues at the human-swine interface and between wildlife and domestic swine. APHIS activities include: 1) comprehensive and integrated swine surveillance, 2) emergency preparedness and response planning, 3) disease investigation and control activities, 4) zoonotic disease prevention and response, 5) swine health studies and special projects, 6) collaborations on emerging issues, and 7) outreach and communication with stakeholders. In addition, the Agency maintains regulatory and programmatic guidelines that direct activities at the Federal, State, and Tribal levels. Establishing and maintaining national standards support interstate and international commerce by ensuring the health of animals and products being moved or traded.

APHIS conducts surveillance activities to detect foreign, emerging, zoonotic, and domestic swine diseases that could substantially impact domestic producers and the national economy. The Agency collects swine samples from various surveillance streams for multiple diseases as part of comprehensive integrated surveillance. In FY 2015, APHIS collected samples for pseudorabies virus (PRV), swine brucellosis, classical swine fever (CSF), influenzas that affect swine (IAV-S), swine enteric coronavirus disease (SECD), porcine reproductive and respiratory syndrome, and completed a one-year pilot project to test for foreign animal diseases (FAD), African swine fever (ASF), and foot-and-mouth disease (FMD) in swine. This pilot helped support substantiation of disease freedom, enhancing awareness, exercising communication and increasing diagnostic preparedness for these diseases. Select diagnostic laboratories now have the ability to test case-qualifying samples for ASF and FMD in the same way that laboratories have tested samples for CSF since 2009. APHIS collected 2,416 samples during the pilot, and is analyzing the data to determine program process improvement needs before full implementation proceeds. Surveillance testing supports the swine industry by assuring trading partners and other stakeholders that the United States is free of FADs. In addition, it supports stakeholder participation in a system to rapidly detect FADs in swine. APHIS also collected samples from numerous swine FAD investigations. This comprehensive, integrated approach enabled APHIS to maintain surveillance with a risk-based approach that targeted high risk samples and reducing surveillance costs.

Comprehensive integrated surveillance includes: 1) field work and epidemiological investigations, 2) designated surveillance streams to collect biologic samples, 3) a veterinary diagnostic laboratory infrastructure, 4) data management systems, and 5) methodologies for data analysis and reporting. APHIS has implemented each of these components, and is collecting samples and data from the following surveillance streams: veterinary diagnostic laboratories, slaughter plants, high risk producer premises, livestock markets, and feral swine during elimination projects. Through comprehensive integrated surveillance, APHIS tested 190,647 swine for PRV in FY 2015 (quarters 1-3). In addition, APHIS tested 166,254 samples for swine brucellosis, 19,885 samples for IAV-S and 8,394 samples for CSF in quarters 1-3. Testing continued to confirm that all commercial swine herds were free from swine brucellosis, CSF and PRV. IAV-S is common in the swine industry, and these samples are tested to determine the types of influenza that are present. Full FY 2015 statistics for PRV, swine brucellosis, CSF and IAV-S will likely become available early 2016.

Domestic swine remains at risk from diseases such as PRV and swine brucellosis primarily due to the increasing feral swine populations in the United States. These populations are estimated to exceed six million, spread several swine diseases, and threaten domestic herds lacking the biosecurity necessary to prevent feral swine exposure. In FY 2015, APHIS tested approximately 2,800 feral swine during wildlife sampling of several swine diseases of concern. The Agency is continuing its analysis of data from this surveillance stream.

APHIS has the responsibility under the Swine Health Protection Act to license and inspect swine production facilities that feed cooked garbage to swine, and to conduct searches for unlicensed facilities that may feed raw garbage to swine. This practice could transmit infectious diseases such as ASF, FMD or CSF to swine. Incomplete data received as of October for FY 2015 indicates that APHIS supported 4,175 inspections of licensed premises and 26,685 searches for non-licensed facilities. Through these searches, the Agency identified 37 non-licensed feeders. APHIS worked with States to either bring these facilities into compliance or force them to cease their illegal

activities. Complete FY 2015 data will be available in early 2016, once States report it under the terms of their cooperative agreements.

In FY 2015, APHIS continued to work with the swine industry to manage and report on SECD issues. In addition, the Agency supported rapid response investigative teams, disease entry pathway analysis, and the development of truck washing biosecurity guidelines. These actions helped stakeholders identify entry pathways and better understand the scope of SECD in U.S. swine herds. Due in part to APHIS' efforts, SECD detections have significantly decreased since the winter of 2014 and spring of 2015, and only sporadic identifications of SECD have been reported since June 2015.

In FY 2015, no commercial herds were identified as having PRV or swine brucellosis. However, on occasion some non-commercial herds were identified following exposure to feral swine. In all test-positive cases, APHIS and State partners investigate and quarantine infected herds, conduct routine testing to determine prevalence in the herd, and perform whole herd depopulation or removal of infected animals through a test-and-removal strategy to eliminate the disease from these herds. These response efforts protect commercial herds that may be exposed to infected backyard herds. Because APHIS has eliminated PRV and swine brucellosis from all U.S. commercial swine herds, the Agency continues to modernize the existing regulatory framework and surveillance activities to reflect a comprehensive, risk-based, and science-based monitoring/swine surveillance program as necessary to support trade efforts while reducing the burden on States and producers.

In FY 2015, public health officials reported four human variant influenza cases linked to swine exposure, with all individuals being exposed to swine before becoming ill. State public health and animal health officials, with support from APHIS and the Centers for Disease Control, investigated all outbreaks. APHIS offers assistance to States and industry to identify the isolates from the swine associated with these outbreaks, if warranted. Joint animal health and public health investigations have supported the One Health concept and strengthen APHIS's ability to respond when both animal and human health might be compromised. Genetic sequences from these samples and other swine isolates are entered into GenBank (a publicly accessible genomic database). This database provides the scientific community with updated, comprehensive DNA sequence information to support diagnostic test and vaccine development.

Zoonotic diseases account for more than 60 percent of the infectious diseases that pose a public human health threat. Approximately 75 percent of the new diseases that have affected humans over the past 10 years have originated from animals or products of animal origin. Swine can harbor several zoonotic disease agents - influenza A virus, swine brucellosis, trichinellosis, and toxoplasmosis are a few examples. In FY 2015, APHIS worked with the swine industry to evaluate the development of a negligible risk compartment for Trichinella to expand international trade opportunities for the pork industry.

In FY 2015, APHIS also supported multiple special projects to advance scientific knowledge, situational awareness, rapid disease detection, and effective diagnostic tests that are critical to the Agency's ability to respond to swine and human health events. For example, APHIS responded to an increase in swine exhibiting vesicular lesions. The Senecavirus A virus in swine caused the lesions, but they were similar to lesions found in several FADs. As a result, APHIS performed numerous FAD investigations and gathered information to monitor and track trends in these animal disease events. The Agency shared this information with stakeholders, and developed and clarified its policy for investigating swine with suspect vesicular lesions. In addition, APHIS and industry stakeholders investigated the severity of an emerging variant strain of PRV in China. The Agency worked to ensure preparedness and response capabilities through diagnostic testing and vaccination, in case the virus returns to the United States. Further, the Agency continued to support multiple agreements examining the advancement of disease control measures, feral swine mapping, investigative reporting, and training and biosecurity efforts to prevent shedding diseases through truck washes and looking at diagnostic testing. In addition, APHIS continued to support projects with various Universities to identify and collect samples of FAD-infected animals abroad.

8. Veterinary Biologics

APHIS' Center for Veterinary Biologics (CVB) regulates veterinary biological products under the Virus-Serum-Toxin Act to ensure that these products are pure, safe, potent, and effective. Organizations develop these products,

which include vaccines, bacterins, antisera, diagnostic test kits, and analogous products, to diagnose, prevent, and treat animal diseases. The CVB develops regulations concerning the production and licensing of veterinary biologics, evaluates pre-licensing dossiers and issuance of licenses and permits, tests products submitted for licensure, conducts facility and product inspections, approves product certifications, conducts investigations of non-compliance, and conducts post-marketing surveillance. This comprehensive regulatory approach is the most effective way to ensure that only quality, Federally-licensed veterinary biological products are available to U.S. consumers, and plays an essential role in the protection of animal health and agriculture.

Licensed Products and Inspections

APHIS licenses and inspects facilities to ensure that all veterinary biologics produced and distributed in, or imported into, the United States are of the highest quality, and not worthless, contaminated, dangerous, or harmful. Before the Agency began regulating veterinary biologics, farmers and animal health officials found products to be ineffective or contaminated with harmful diseases, including foreign animal diseases (FADs). In FY 2015, APHIS received 129 applications for new and renewal licenses and issued 41 licenses/permits for the prevention, diagnosis, management, or cure of existing or new/emerging animal diseases. In FY 2015, the Agency licensed 97 manufacturers for approximately 1,724 active veterinary biological product licenses/permits for the control of 220 animal diseases, including porcine epidemic diarrhea virus, for which there is a pure, safe, potent, and effective CVB-licensed product. This represents an increase of two diseases from FY 2014. These products are critical for protecting American agriculture, facilitating trade, and enhancing agricultural economic opportunities.

APHIS inspects manufacturing facilities to ensure that they produce biologics according to regulations. InFY 2015, APHIS conducted 53 on-site inspections, 17 percent of which supported a new establishment/facility or product license for the industry. Licensed veterinary biologics are vital since they can be used to manufacture products to diagnose, prevent, or treat animal diseases, or improve existing biologics. For example, when the United States experienced a large outbreak of highly pathogenic avian influenza in FY 2015, CVB issued a conditional license for a vaccine to help control the virus. Also in FY 2015, APHIS performed 86 regulatory actions, issued 48 violation notices, and conducted 20 investigations of possible regulation violations. In addition, the Agency received 212 adverse event reports regarding veterinary biological products. These events, which may or may not be caused by the product, occur after the product is used. APHIS gathers this information to better learn how products are used in field conditions and applied to the evaluation process to assure that pure, safe, potent, and efficacious products are available.

The United States and foreign countries require import and export certificates to certify that products are prepared in accordance with the Virus-Serum-Toxin Act. In FY 2015, APHIS reviewed/processed 2,396 Certificates of Licensing and Inspection, and reviewed/processed 911 export certificates for veterinary biological products. The Agency processed 98.8 percent of all export certificates within 4 days or less, and processed 100 percent of all certificates of licensing and inspection within 28 days. Timely processing helps ensure that markets are accessible for manufacturers who export their product. APHIS helped to ensure there were no FAD events related to the importation of 135.5 million biologics doses.

Collaborative Efforts

In FY 2015, APHIS provided expertise and training at a joint Institute for International Cooperation in Animal Biologics education program. More than 122 delegates from 19 countries (including the United States) participated in this course to educate industry personnel and foreign officials on U.S. regulatory processes. The program promotes U.S. policy as a regulatory model for both established and developing markets, and it improves world-wide marketability of USDA-licensed biologics. APHIS also participated in harmonization efforts with major trading partners including Japan and the European Union through the International Cooperation on Harmonisation of Technical Requirements for Registration of Veterinary Medicinal Products.

Vaccination of companion animals with inactivated veterinary rabies vaccines is a first line of defense in protecting the public from the rabies virus. Each lot of rabies vaccine is tested for potency using the standard animal testing protocol. In FY 2015, APHIS continued working with industry to produce well-characterized reagents for an *in*

vitro test (non-animal test). The Agency expects that this new test will yield more consistent results than the current test, reduce the number of mice that need to be tested, and limit the laboratory staff's exposure to the virus.

9. Veterinary Diagnostics

Laboratory and diagnostic services are essential components of the U.S. animal health infrastructure. The Veterinary Diagnostics line item provides partial funding for the National Veterinary Services Laboratories (NVSL), the only national reference and confirmatory laboratory for APHIS animal health programs. This line item also supports the National Animal Health Laboratory Network (NAHLN), which is a national infrastructure of labs that provides animal disease diagnostics, both daily and in the event of a large-scale animal disease outbreak. The funding supports NAHLN personnel, infrastructure for a portion of the participating laboratories, and travel for laboratory staff to attend NAHLN meetings. Additionally, the line item funds the NAHLN portal (a secure means of communication for NAHLN laboratories), personnel providing information management system support, and online quality management training used by the labs to maintain qualifications related to each NAHLN-approved laboratory's quality management system. .

The NAHLN is a coordinated surveillance and monitoring system for animal disease that integrates and interconnects Federal and State laboratory resources and uses standardized diagnostic protocols and procedures to improve the security of the nation's livestock. It consists of 58 State and university laboratories in 42 States, as well as 4 Federal laboratories. The network laboratories perform approximately 300,000 diagnostic tests to support APHIS' animal health surveillance programs. The NVSL trains NAHLN personnel to ensure proficiency and standardization for performing diagnostic tests. In addition, the NAHLN conducts exercises and drills to prepare participating laboratories for animal disease outbreak scenarios. This enables the laboratories to remain proficient in animal disease testing. It also enables them to generate a rapid, local preliminary diagnostic result while confirmatory testing is performed at the NVSL.

Diagnostic testing of surveillance samples improves the security of the nation's livestock. In FY 2015, APHIS managed more than 400,500 diagnostic tests and 42,200 accessions (one or more diagnostic samples received from the same submitter on the same day), and produced and provided more than 105,000 reagents representing more than 600 different types of products, many of which are only available to stakeholders through APHIS. APHIS also validated new test methods and platforms, and provided training and assistance to U.S. and international laboratories.

This program funds foreign animal disease (FAD) investigations through NVSL's Foreign Animal Disease Diagnostic Laboratory and Diagnostic Virology Laboratory. In FY 2015, NVSL participated in 1,059 FAD investigations, received and tested 6,417 classical swine fever (CSF) surveillance samples, and supported international capacity building activities in Brazil, Chile, Dominican Republic, Guyana, and Mexico. There was a significant increase in the number of FAD investigations because of outbreaks of vesicular stomatitis. Because this disease has symptoms that mimic foot-and-mouth disease, APHIS tested many samples from these outbreaks as FAD investigations, especially as new regions or locations were identified. NVSL tested 7,512 CSF samples in FY 2014, and the number received in FY 2015, listed above, was within the expected variation from year to year. This variation can be due to many factors, including the number of animals that are sent to slaughter in any given year.

APHIS conducts proficiency testing of Federal, State, and university sponsored laboratories to ensure that they use standardized, rapid diagnostic techniques and to maintain the credibility of U.S. diagnostic test results in the international marketplace. In FY 2015, APHIS provided 32 types of proficiency panels to international, Federal, State, and private laboratories. APHIS made the necessary controls and reference strains available for approximately 200 diseases, including FADs to help other laboratories develop and validate diagnostic tests. User fees cover the cost of some reagents and proficiency panels. In FY 2015, the NAHLN conducted assay studies to validate tests used for identifying high-consequence emerging animal and/or zoonotic diseases. An assay is an investigative procedure for qualitatively assessing or quantitatively measuring the presence or amount of the functional activity of a target entity. The assay studies provided data to determine how assays should be used and how assays perform on U.S. animal populations that test negative for the disease.

In addition, APHIS continued to work with the Department of Homeland Security (DHS) and USDA's Agricultural Research Service to transition the Foreign Animal Disease Diagnostic Laboratory from its current location in Plum Island, New York, to the National Bio and Agro-Defense Facility (NBAF) currently being built in Manhattan, Kansas. The NBAF will be a key national asset to protect our animal agriculture industry in the United States. DHS and USDA have developed five working groups to address transition planning: 1) Facility Advisory; 2) Operational Standup; 3) Partnership Development; 4) Advanced Research & Training; and, 5) Budget Formulation for equipment, personnel, and other transitions costs. Planning efforts will continue until the facility is fully operational in 2023.

10. Zoonotic Disease Management

The Zoonotic Disease Management (ZDM) program enhances State, national, and international collaborative efforts to promote healthy animals, people, and ecosystems. This integrated approach is known as "One Health." Zoonotic diseases are those that pass between animals and people; approximately 60 percent of human diseases are zoonotic, and most newly emerging pathogens are of animal origin. These statistics support a One Health approach to problem solving and policy development. APHIS provides national leadership in addressing the animal health component of One Health by contributing animal health expertise, infrastructure, and networks. The Agency develops strategies, policies, and training programs to help animal health stakeholders engage with their public health counterparts by providing communication guidance and facilitating information exchanges. APHIS' efforts to address the animal health component of One Health directly impact public health through improved animal health and marketability.

Zoonotic Disease Engagement, Investigation, and Response

APHIS, in partnership with the University of Minnesota (UMN), developed and piloted a standardized framework to enhance cross-agency collaborations and improve animal, human, and environmental health; entitled, "The One Health Systems Mapping and Analysis Resource Toolkit" (OH-SMART). In FY 2015, APHIS co-led an OH-SMART collaboration with UMN that resulted in the development of facilitator, participant, and workshop planning guides that were then used in new courses by representatives from the Government of Indonesia and the Indonesia One Health University Network. At the State's request, APHIS used OH-SMART to conduct an after-action review of the State of Minnesota's response to the recent highly pathogenic avian influenza outbreak.

In FY 2015, APHIS collaborated with public health, veterinary, and agriculture officials to investigate four multi-State outbreaks of human *Salmonella* infections linked to contact with live poultry. Two hundred fifty two people from 43 States were infected with outbreak strains. Sixty-three ill people were hospitalized, but no deaths were reported. Epidemiologic, laboratory, and traceback findings linked the four outbreaks to contact with live poultry from multiple hatcheries. Further, APHIS funded cooperative agreements with the Ohio State University (OSU) to better understand the distribution of Salmonella strains in poultry with high public health impact and avoid future outbreaks. OSU now has three consecutive years of data from their studies in collaboration with a national chain of farm stores. This data will be useful in identifying changes in Salmonella prevalence and population. In addition to outbreaks associated with live poultry, APHIS' National Veterinary Services Laboratory worked with State public health, veterinary, and agriculture officials to investigate an outbreak of 22 human Salmonella Muenchen infections in 17 States linked to contact with geckos purchased from stores located within different States.
Pre Harvest Food Safety (PHFS) involves on-farm interventions to reduce the risk of foodborne diseases in humans. In FY 2015, APHIS partnered with the University of Minnesota to develop operational tools and new information to facilitate APHIS' work in PHFS to address risks from *Salmonella* in poultry.

Antimicrobial Resistance

As part of the President's National Strategy for Combating Antibiotic Resistant Bacteria (CARB), APHIS works with other USDA agencies to develop mitigation strategies to limit or reduce AMR prevalence. This strategy covers a broad array of potential government efforts to address AMR in human and animal health, including AMR surveillance at the farm level, collection of antimicrobial drug use data, and efforts to promote stewardship of antimicrobial drugs by animal owners and veterinarians. In FY 2015, APHIS and several other Federal agencies developed an AMR action plan, which calls for these agencies to prioritize the issue of antibiotic resistance using an

integrated approach for AMR surveillance, research and development, and outreach activities. The goals are to determine patterns, purposes, and impacts of antibiotic use in food animals; monitor antibiotic drug susceptibilities of selected bacterial organisms in food-producing animals, production environments, and meat and poultry; and identify management practices, antibiotic alternatives, and other mitigations to reduce AMR associated with food-producing animals and their environments.

Additionally, the Agency worked with the Food and Drug Administration (FDA) to develop strategies to assess the impacts of policy actions related to antimicrobial drug use in livestock and poultry. The Agency also joined FDA and the non-profit Farm Foundation in delivering workshops across the United States to communicate APHIS' AMR activities. The Agency also established cooperative agreements with academic institutions for molecular studies, retrospective analyses of existing National Animal Health Monitoring System data, and longitudinal studies of antimicrobial use relative to resistance on poultry farms. APHIS has also participated in several international AMR activities. For example, the Agency provided comments on chapters of the World Organisation for Animal Health (OIE) Terrestrial Animal Health Code related to AMR. APHIS and FDA continue to provide input to the OIE's ad hoc group developing a global database on antimicrobial drug use. APHIS also continues to participate in the Transatlantic Task Force on AMR, which was formed after the 2009 U.S.–EU summit.

Pandemic and Animal Disease Preparedness

Recent human outbreaks of Ebola, avian influenza A (H7N9), and Middle East respiratory syndrome caused by a coronavirus highlight the challenges in the global response to emerging animal diseases with human pandemic potential. APHIS promotes an all-hazards approach to strengthening pandemic and animal disease preparedness, surveillance, and response to be prepared for a variety of diseases. In FY 2015, APHIS continued to help the Centers for Disease Control and Prevention (CDC) and the American Veterinary Medical Association address the animal component of the Ebola outbreak. APHIS led the Incident Coordination for USDA's Ebola response, ensured a coordinated One Health approach to the U.S. government Ebola response, and worked across Agencies to facilitate technical expertise sharing among our Federal and State interagency partners. Building upon the lessons learned during the Ebola response, APHIS assisted the USDA Office of Homeland Security and Emergency Coordination in developing standard operating procedures for emerging infectious disease events.

APHIS provided leadership in the North American Plan for Animal and Pandemic Influenza, which strengthens trilateral preparedness and response capabilities for human and animal health in Mexico, Canada, and the United States. Throughout the FY 2015 emergency response to highly pathogenic avian influenza, APHIS played a critical role at the human-animal interface to ensure One Health-related issues were addressed. APHIS worked with CDC to develop and implement procedures and communications for monitoring emergency responders for illness compatible with influenza. In addition, the Agency addressed legal and procedural issues regarding tracking employees' and contractors' health, establishing a monitoring system, and providing CDC and State/Local Public Health Departments with access to employee information. APHIS also coordinated the development of the CDC guidance document, "Interim Guidance for Landfill Workers in the United States Disposing of Poultry Carcasses During Outbreaks of Highly Pathogenic Avian Influenza". The Agency provided animal health response and trade status/impact information to CDC throughout the emergency response. In addition, APHIS provided in depth pre-testimony briefing materials and information for the CDC Witness, Assistant Surgeon General – U.S. Public Health Service and Director of the National Center for Immunization and Respiratory Diseases, in preparation for the Senate HPAI hearing held in July 2015. In addition, the Agency continued working with the CDC, the Department of the Interior, and other government agencies to monitor the H7N9 virus in China, assess potential introduction pathways, and modify preparedness and response plans if appropriate. I

Global Health Security

Coordination and collaboration across all levels of the human, livestock and wildlife health sectors are vital to meet the Global Health Security Agenda's (GHSA) vision for "a world safe and secure from global health threats posed by infectious diseases." APHIS works domestically and internationally to protect the United States from global health threats posed by infectious diseases. APHIS continues to coordinate USDA efforts for antimicrobial resistance, emergency operations, and emerging zoonoses through a GHSA sub-group of the USDA Joint One Health Working Group. In addition, the Agency proposed an approach to clarifying and aligning USDA's role in

GHSA, and provided briefings to the USDA One Health Joint Working Group and the Deputy Under-Secretary for Marketing and Regulatory Programs. APHIS is encouraging the use of OH-SMART workshops at the country-level as a powerful tool for strengthening interagency coordination under GHSA. In FY 2015, APHIS supported USDA attendees at White House level meetings, and represented USDA at Ministerial-level international meetings such as the GHSA meeting in Seoul in September 2015. During that meeting, the United States committed to an independent assessment to identify strengths and gaps in our global health security architecture. As another outcome of the Seoul meeting, OH-SMART is now being considered by GHSA leadership as a method/tool to accomplish certain zoonotic action package activities within GHSA.

Selected Examples of Recent Progress - Plant Health:

1. Agricultural Quarantine Inspection

Through the Agricultural Quarantine Inspection (AQI) program, APHIS and the Department of Homeland Security's (DHS) Bureau of Customs and Border Protection (CBP) safeguard U.S. agricultural and natural resources from the introduction of invasive pests and diseases. To exclude foreign pests and diseases, APHIS assesses the risks associated with international trade and specific imported agricultural products and develops import regulations to protect agricultural health. In addition, the Agency conducts off-shore pest risk reduction activities including pre-departure inspections of passenger baggage and cargo destined for the continental United States from Hawaii and Puerto Rico and foreign commodity pre-clearance programs; trains agricultural inspectors and detector dog teams to work at U.S. ports of entry; fumigates arriving containers and cargo; inspects and takes action as necessary on imported plant propagative materials; conducts trade compliance activities to detect and prevent smuggling; and provides the scientific support necessary to carry out these activities and those carried out by CBP.

APHIS receives appropriated funding for pre-departure inspections of passengers and cargo traveling from Hawaii and Puerto Rico to the continental United States to prevent the introduction of non-native agricultural pests and diseases into the continental United States while facilitating the movement of travelers and agricultural goods. Because of the high volume of travelers from these islands to the continental United States, along with the risks associated with numerous fruits, vegetables, and animal products associated with these areas, APHIS inspects all passenger baggage leaving these islands. When inspectors identify an item that poses a specific risk, they take immediate action to prevent the entry of materials that could harbor the pest or disease in question. This action could prevent significant damage to the country's agricultural industry and negate the need for costly control and eradication programs. APHIS also partners with industry groups and State and Commonwealth counterparts to facilitate the safe movement of cargo. In Hawaii, the State Department of Agriculture conducts nursery inspections and certifies nursery stock for shipment to the continental United States. In addition to the appropriated funding, APHIS collects AQI User Fees under the authority of The Food, Agriculture, Conservation, and Trade Act of 1990 to recover costs for services provided by APHIS and CBP associated with some preclearance and the port-of-entry arrival of commercial vessels, trucks, loaded railroad cars, aircraft, and passengers entering the United States from a foreign destination. APHIS inspectors oversee the preclearance of commodities by inspection or treatment; trust fund agreements with the exporting country and exporter or exporter groups fund this activity. Trust funds cover all costs incurred by APHIS inspectors when they are engaged in preclearance activities. In most cases, exporters of the precleared commodity cover the costs of this APHIS service.

Cooperative Program Management

APHIS works with CBP to protect America's agricultural resources and food supply through inspecting international passenger baggage, cargo, and conveyances. APHIS and CBP share management of the program through several working groups, including the Joint Agency Task Force and the Joint Agency Quality Assurance Program. In FY 2015, APHIS and CBP agreed to reformulate these working groups with the goal of enhancing cooperation and connections between policy units in both agencies and field operations. The effort to update these working groups is expected to commence in calendar year 2016. In FY 2015, APHIS and CBP also completed an effort to update the AQI user fee structure and rates following an extensive review of costs and operations at each agency. APHIS published a final rule on the new rates in the *Federal Register* on October 29, 2015. The new rates will go into effect on December 28, 2015. at maritime ports, airports, a mail facility and a land border port. APHIS trained 113

new CBP agriculture specialists and also conducted basic agricultural threat training for 1,440 first-line CBP officers and provided agriculture fundamentals training for 72 CBP import specialists. Additionally, APHIS also trained 18 canine teams, 15 Agriculture Canine Trainers, and 18 Agriculture Canine Team Supervisors for CBP.

Pre-Departure Inspections

APHIS inspected the baggage of approximately 11.2 million passengers before they left Hawaii and Puerto Rico and intercepted 272,370 prohibited items and 3,751 reportable pests (quarantine-significant pests that must be reported to Federal or State authorities) in FY 2015. APHIS evaluates the effectiveness of its pre-departure program by measuring the percentage of passengers destined for the continental United States from Hawaii and Puerto Rico that comply with agriculture quarantine regulations. In FY 2015, more than 97 percent of passengers were in compliance (calculated by determining how many passengers are carrying prohibited items through random sampling and comparing it to the actual number of prohibited items intercepted through inspections). To facilitate interstate trade between Hawaii and Puerto Rico and the continental United States, APHIS conducts commodity certification and inspection programs. In FY 2015, the program conducted more than 61,000 inspections of regulated agricultural commodities shipped from Hawaii and approximately 1,250 inspections of regulated agricultural commodities shipped from Puerto Rico. In addition, the program oversaw or conducted 4,808 cargo treatments in Hawaii and 4,060 cargo treatments in Puerto Rico. APHIS continues to conduct methods development activities that expand the treatments available to allow additional fruits and vegetables to be shipped from these islands to the continental United States.

Port-of-Entry Inspections and Pest Interceptions

In FY 2015, more than 172.5 million passengers and pedestrians entered the United States by air, bus, ship, train, or on foot. CBP agriculture specialists inspected the baggage of more than 23.4 million of these travelers through manual inspection, x-ray technology, or detector dogs. Also in FY 2015, the program inspected 607,816 of the 98 million passenger vehicles entering the United States from Canada and Mexico. Inspectors also cleared 30,303 ships and nearly 1.2 million cargo, mail, and express carrier shipments, intercepting 103,030 pests. Of the travelers inspected, approximately 97.3 percent of international air passengers, 97.5 percent of southern border vehicles, and 93.1 percent of northern border vehicles were found to be in compliance with agriculture quarantine regulations.

Plant Germplasm Quarantine

APHIS' Plant Germplasm Quarantine Program (PGQP) provides quarantine services for importing plant cultivars and germplasm safely to prevent foreign pathogens from entering our agricultural production areas and environment. In FY 2015, PGQP released from quarantine 35 bamboo clones, 133 grass clones, 3 kiwis, 70 pome fruits, 67 potato clones, 17 potato true seed lots, 17 rice seed accessions, 26 sorghum seed lots, 23 stone fruit clones, 191 stone fruit seedlings, 56 sugarcane clones, 20 sweet potatoes, and 3 woody ornamentals. New crops imported in FY 2015 included figs and a pine bonsai. Notable shipments included 25 Japanese Sakura cherry seedlings to Disney, 36 Japanese weeping cherry seedlings to New York City, 26 Australian sorghum seed lots to USDA' Agricultural Research Service (ARS) in Georgia, and 179 almond seedlings to the ARS Prunus Repository in California. These high-risk crops are prohibited entry into the United States in commercial quantities, but importers can bring in small quantities through an APHIS-approved plant quarantine program, like the one at PGQP. PGQP scientists also discovered new pathogens during testing of potatoes and peaches. When new pathogens are discovered, APHIS collaborates with other scientists in ARS or universities to characterize the pathogen and publish information about it. These collaborations may result in improvements in the PGQP's testing protocols to enhance our ability to detect new pathogens.

Pre-Clearance Inspections

APHIS conducts commodity pre-clearance programs in 30 countries to minimize pest and disease risks outside the United States and allow perishable products to reach markets promptly. In FY 2015, the program developed a new Commodity Preclearance Program Management manual to strengthen internal controls and ensure consistency across inspection programs in different countries on activities including trip reporting, corrective actions, sampling, and inspection data collection.

APHIS also works with the U.S. Department of Defense (DOD) and DHS to inspect military passenger baggage and equipment before it returns from overseas. This work is necessary to prevent the entry into the United States of foreign plant and animal pests and diseases in returning military cargo, equipment, and vehicles. In FY 2015, APHIS fulfilled this role by training and providing technical assistance visits to military personnel serving worldwide in 20 countries. Designated APHIS personnel delivered agricultural preclearance training and certification to military personnel, stateside and in forward deploy locations in the Middle East, Central Asia, Europe, and Africa. In FY 2015, APHIS trained more than 1,800 personnel in the United States alone and supported the DOD's military exercise, Talisman Saber. This exercise, conducted with the Australian military, improves regional security and capacity for joint contingency response.

Smuggling Interdiction and Trade Compliance (SITC)

SITC officials analyze and identify potential smuggling pathways, conduct product traces, and coordinate with investigative organizations to increase compliance with APHIS' regulatory requirements. SITC also notifies CBP about potential agricultural risks at the ports of entry. In FY 2015, APHIS seized 1,290 prohibited agricultural items in retail commercial locations. Those seizures totaled 230,309 pounds of prohibited and/or restricted plants and plant products and meat and meat products valued at $278,928. The Agency conducted seven recalls due to finds of high-risk material, such as unprocessed whole kernel corn which posed a risk for exotic plant diseases, untreated bamboo garden stakes which were infested with exotic plant pests, and untreated whole lentils which posed a risk for exotic seed weevils. Total seizures as a result of recalls weighed 65,136.7 pounds and were worth an estimated value of $104,250. In conjunction with CBP, APHIS conducted 33 port-of-entry Special Operations and found additional prohibited plants and plant products as well as various high-risk animal products.

Asian Gypsy Moth (AGM)

AGM is an invasive pest that has the potential to affect nearly all U.S. deciduous forests. It poses a particular risk to western areas because of its ability to hitchhike on shipping vessels from Asia. APHIS supports the exclusion of AGM through negotiations and support of offshore ship inspection and certification from Far East Russia, Japan, Korea, and China. Due to an increase in AGM egg masses that CBP intercepted on ships in 2012, APHIS, CBP, and the Canada Food Inspection Agency conducted increased outreach to the maritime shipping trade over the last several years. APHIS coordinated joint U.S./Canada technical visits to Japan, China and Korea in 2014 and 2015, to gain more cooperation from the foreign cooperators, as well as the certifying agencies in each country. The number of egg mass detections on vessels approaching the United States has dropped from 48 in 2014 to 5 as of October 1, 2015.

Plant Inspection Stations

Importations of nursery stock, and other propagative plant materials, can serve as significant pathways for invasive pests and diseases. To reduce the risks associated with such imports, APHIS requires that certain imported plant materials enter the United States through plant inspection stations, which are located at ports-of-entry throughout the country at major international airports and seaports, and at major crossings along the U.S.-Mexican border. Specialists at these stations inspect shipments to ensure that imported plants and seeds do not contain pests and diseases of regulatory significance. In addition, they enforce the regulations that apply to the import and export of plant species protected by the Endangered Species Act and the Convention on International Trade in Endangered Species of Wild Fauna and Flora. In FY 2015, inspectors cleared more than 19,000 imported shipments containing 1.5 billion plant units (cuttings, whole plants, or other propagative materials) and approximately 746,169 kilograms of seeds. Through these inspections, they intercepted more than 800 reportable pests. In addition, the stations conducted more than 500 treatments remediating pests on more than 4.2 million plant units and more than 350,000 kilograms of seed.

During FY 2015, all Plant Inspection Stations conducted risk-based sampling on shipments, using a new protocol to maximize the effectiveness of inspections by incorporating statistically sound sampling for shipments based on the level of risk posed by the type and origin of the plant material. To help inspectors implement the new method, APHIS developed an on-line sampling tool that calculates the number of samples to inspect for each

shipment. APHIS started using the new sampling method at four initial locations on October 1, 2013. The remaining locations began using the method at staggered dates throughout FY 2014. With the completion of a full year with all locations using risk based sampling, APHIS will be able to review data collected through the new process to begin to identify plant/country combinations into different risk levels of high, medium or low. This will allow inspectors to better focus resources on the higher risk plants, as the sampling tool will be adjusted according to risk level.

Pest Identification

When pests are detected in cargo, they must be identified to determine whether they are considered reportable under APHIS regulations (i.e., they would pose a significant threat to U.S. plant health and are regulated by APHIS as a result) and whether the cargo can be allowed entry (and what, if any, mitigation measures would be required). In FY 2015, APHIS National Identification Services processed and identified 156,335 pests, with 74,085 being reportable pests. To reduce the pests that CBP must submit to APHIS for identification, APHIS and CBP established the Cargo Release Authority (CRA) program in 2006. Through the CRA program, APHIS provides training and job aids that allow CBP agriculture specialists to identify frequently intercepted, easily recognizable, low-risk insects and release the cargo if the species is not a quarantine significant pest. Since the inception of the CRA program, APHIS has provided CRA training to over 1,375 CBP Agriculture Inspectors. Of these, approximately 979 Agriculture Inspectors have earned CRA, which occurs after the Agriculture Inspector has successfully identified a particular pest a certain number of times and submitted documentation to APHIS, on a total of 11,960 CRA pests.

Risk Analysis

APHIS' Plant Epidemiology and Risk Analysis Laboratory (PERAL) develops pest risk analyses and epidemiological approaches to pest exclusion. In 2015, PERAL personnel completed 404 risk analyses associated with imports, exports, invasive pest threats, and programmatic requirements. In addition, PERAL personnel completed 46 analyses to open, expand, or maintain export markets for U.S. producers. The laboratory's work also included evaluations of 40 new pests for potential risk to U.S. agriculture and 10 risk analyses for import requests from foreign countries.

Phytosanitary Export Certification

APHIS facilitates the export of agricultural shipments by tracking plant health import requirements for more than 200 countries, and provides certifications to U.S. exporters to help ensure that U.S. products meet other countries' requirements. More than 2,300 Authorized Certification Officials at the Federal, State, and county levels can access countries' certification requirements on-line and conduct inspections to issue phytosanitary certificates. These certificates facilitate the entry of commodities into foreign markets. The program employs a web-based Phytosanitary Export Database, known as PExD. This database, which is free to exporters, enables them to research requirements and better prepare for shipping. In addition, this program uses a Phytosanitary Certificate Issuance and Tracking (PCIT) database, which allows exporters to apply for certificates, schedule inspections, and pay certification fees. PCIT also collects State and county cooperator fees in addition to the USDA fees for phytosanitary certificates. In FY 2015, APHIS collected $19 million for certificates the Agency issues and remitted more than $17 million to State and County cooperators for certificates they issued. Currently, 32 States and 29 counties use this feature. PCIT also enables APHIS to capture export application information, document inspection and certification information, print an original phytosanitary certificate on secure paper, and generate export reports. The Agency is continuing its effort with international counterparts to begin exchanging phytosanitary certificates electronically. The United States began accepting electronic phytosanitary certificates from Australia and the Netherlands in FY 2014. In FY 2015, the Netherlands began receiving electronic certificates from the United States, and testing of exchange occurred with Mexico, Peru, and Guatemala. As those countries (and others) have systems ready then further exchanges will begin. In FY 2015, APHIS, State, and county officials issued more than 665,000 Federal export certificates for agricultural shipments.

2. Cotton Pests

The Cotton Pests program works with growers, the cotton industry, States, and Mexico to eradicate the boll weevil (BW) and pink bollworm (PBW) from all cotton-producing areas of the United States and northern Mexico. Collectively, the BW and PBW are the most destructive pests of cotton worldwide. The Cotton Pests program also maintains preparedness capabilities to address other cotton pests that could enter the United States. APHIS provides national coordination, operational oversight, and technology development (such as sterile moth production for PBW eradication), while program partners have provided more than two-thirds of the funding for the BW eradication effort and most of the operational funds for PBW eradication. APHIS also provides technical advice on trapping and treatment protocols to its partners in Mexico for their eradication efforts.

The BW has cost cotton growers more than $13 billion since it entered the United States in the late 19th century. APHIS began an area-wide BW eradication program in 1983. The BW eradication effort involves mapping cotton fields, using pheromone traps to evaluate weevil presence, and applying pesticides. PBW eradication uses PBW-resistant cotton, mating disruption, insecticide treatments, and sterile moth releases. Once these pests are eradicated, the programs will conduct long-term surveillance to guard against re-infestation and take action if re-infestation occurs. After the BW and PBW are eradicated from an area, cotton growers rely far less on insecticides, thus reducing their production costs. Over the course of the eradication effort, the program has increased these growers' global competitiveness, primarily through reduced production costs and increasing yields. In the 2015 season, the industry produced approximately 14 million bales worth approximately $4 billion.

To date, APHIS and cooperators have eradicated BW from 99.5 percent of the 16 million acres of U.S. cotton. The Lower Rio Grande Valley (LRGV) is the last zone within the United States where active eradication efforts continue. The LRGV is impacted by the neighboring Mexican cotton producing state of Tamaulipas and the area's security issues. Inclement tropical weather also has hindered progress in the LRGV region by providing a yearlong growing season favoring volunteer cotton plants, which are cotton plants growing outside the intended planted and cultivated field. While there was decreased cotton acreage planted in the LRGV in FY 2015, detections of boll weevil increased by threefold due to frequent rains, flooding, and windy conditions. The bad conditions also affected the Tamaulipas' program significantly. In FY 2015, APHIS partnered with an International Technical Advisory Committee to develop technical strategies to eradicate BW from the LRGV zone and neighboring Tamaulipas. Tamaulipas producers adjusted their late-season treatment strategies to reduce late-season weevil populations. Additionally, they have begun to heighten their efforts to reduce volunteer cotton plants along roadways and former cotton fields. APHIS has initiated efforts to survey the Rio Grande river area, near the pocket of concentrated BW captures in the LRGV. This is the area with highest BW captures early in the calendar year, but without cultivated cotton acres. During fall sampling in 2015 there was a BW finding near Batesville, Texas. Increased trapping efforts are underway in order to assess the extent of the outbreak.

Additionally, APHIS participated in the U.S./Mexico Boll Weevil Eradication Program Coordination Committee. This committee is made up of three representatives from Tamaulipas and LRGV: a cotton grower, a representative from the boll weevil eradication program, and a government representative. The committee met bi-weekly in Harlingen, Texas, starting on May 13, 2015, to unite the programs in the processes of eradication. The committee continues to review capture and treatment data from both countries' programs and recommend strategies to help move the programs forward collectively.

Due to the number of captures this year, the program put a hold on its goal to fully eradication BW from all cotton-producing areas of the United States and adjacent areas of northern Mexico by 2015. APHIS will continue monitoring for BW to ensure the program quickly detects any reintroductions while continuing to fully eradicate the pest in the upcoming years.

In the United States, although the volume of acreage planted with cotton varies from year to year, the PBW commonly causes cotton losses of 20 percent or more in affected areas. The PBW control program began in 1967, and APHIS, along with cooperative program partners, have eradicated the PBW from Southern California, Arizona, large areas of New Mexico, and the El Paso region of Texas. The southwestern growing areas within the United States are now in the "confirmation of eradication" phase of the program. To date, the program maintains its fully eradicated status and will begin the fourth and final year of the eradication confirmation phase in FY 2016. In the

past, APHIS reared and distributed sterile insects to reduce the PBW populations in support of the eradication programs. APHIS is currently maintaining a colony during the confirmation of eradication phase. The last native moths detected in the United States (and Mexicali and San Luis, Mexico) were detected in 2012. No native moths were reported in FY 2015.

By eradicating these two devastating cotton pests, APHIS protects continued export opportunities for U.S. cotton growers and significantly lowers production costs. Through these activities, the program protects $66 worth of cotton production per appropriated dollar spent.

3. Field Crop & Rangeland Ecosystems Pests

The Field Crop and Rangeland Ecosystem Pests (FCREP) program protects U.S. agricultural crops and rangelands from the establishment or spread of invasive or economically significant pests, facilitates safe international trade and domestic commerce, preserves economic opportunities for U.S. farmers, and fosters healthy ecosystems in rangelands and natural lands. To accomplish these goals, APHIS provides national coordination, threat assessment, and strategies to prevent pests and diseases such as Karnal bunt and witchweed from spreading and impacting export markets for U.S. farmers. The program also works to prevent the imported fire ant from spreading through interstate commerce and helps Western rangeland managers respond to cyclical outbreaks of grasshoppers and Mormon crickets. These programs help protect resources that small, rural communities depend on for income.

Grasshoppers and Mormon crickets (GMC)

Through the FCREP program, APHIS cooperates with Federal, State, Tribal, and local agencies, organizations, and institutions to conduct survey and suppression activities in western States to reduce damage that GMC outbreaks cause, protecting resources valued at more than $8.7 billion (according to a 2012 Economic Analysis prepared by University of Wyoming through a cooperative agreement with APHIS). Uncontrolled GMC infestations could cause significant economic losses for U.S. livestock producers by reducing animal food supply in rangeland and therefore forcing producers to buy supplemental feed or sell their livestock at reduced prices. Besides feeding on grass, they can also devastate cultivated crops such as alfalfa, wheat, barley, and corn. Infestations often cover vast acreage, and landowners may need Federal support to control them. The program helps land managers by providing population information, helping to predict where grasshopper populations could develop into outbreaks, and providing technical assistance about options for dealing with problem-level populations. By providing ongoing information, and advice to land managers and conducting control treatments where necessary and possible, this program helps protect 661 million acres of rangeland across the western United States.

In FY 2015, APHIS conducted surveys in 17 States for GMC, collecting data at nearly 29,000 survey points. Based on the results of the surveys and needs of land managers, the program treated 207,401 acres of rangeland, which protected rangeland forage and wildlife habitat on approximately 384,403 acres. While grasshopper populations remained well below outbreak levels in many areas, areas of Montana experienced very high populations. APHIS treated areas on tribal lands belonging to the Northern Cheyenne, Crow, and Flathead Tribes and 13 private ranches. The program also treated 2,880 acres in New Mexico. Smaller ground treatment occurred in Arizona, Washington, Utah and Idaho. Before conducting any treatments, APHIS confirms the species of the grasshopper, as some do not cause damage to rangeland and others can provide ecological benefits by eating weeds (leaving grasses for grazing livestock). Over the past several years, the program has been preparing a programmatic environmental assessment that covers all 17 States that could experience GMC outbreaks, updating the last programmatic assessment that was completed in 1987. This document is expected to facilitate treatments and help APHIS ensure that it is taking appropriate action to prevent grasshopper treatment impacts on wildlife habitat and wetlands, among other things.

Imported Fire Ant (IFA)

FCREP activities also prevented the spread of IFA into new areas. This pest is a public nuisance and causes approximately $6.3 billion in annual damage to homeowners, industry, and agricultural commodities, such as corn and soybean (according to a 2006 Texas A&M University study). IFA infests more than 366 million acres in Puerto Rico and 14 States: Alabama, Arkansas, California, Florida, Georgia, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia. Each of these States/territories is under

Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia. Each of these States/territories is under Federal quarantine. The program provides treatments for land managers to help them remove IFA from their products and prevent the human-assisted spread of IFA on regulated articles. To do so, the program evaluates the efficacy of regulatory treatments for preventing IFA spread and works with States, industry, and other Federal agencies to develop insecticides and biological control agents. In FY 2015, APHIS worked on the development of an interactive IFA quarantine map with features that display the quarantine boundaries to assist nursery owners in determining if they are located in the quarantine area. The program anticipates that this unique interactive map will be available in FY 2016. APHIS met the program's performance target of no IFA infestations established outside of regulated areas that could be attributed to the movement of regulated articles infested with fire ants. Although two spot infestations occurred in Delaware and Kentucky in FY 2015, APHIS and State cooperators eliminated them. APHIS expects to maintain this level of performance.

APHIS and cooperators also continued a biological control project using several species of phorid flies to target IFA. Since the spring of 2002, the program has conducted more than 160 releases involving four species of phorid flies, with several releases in each of the States/territories under Federal quarantine. The four fly species are established in the southeastern States, with one species (*Pseudacteon curvatus*) spread throughout most of the southeastern IFA regulated area (excluding CA and AZ IFA areas), and one (*P. tricuspis*) spread throughout more than 65 percent of the southeastern regulated area, primarily in the southern range. The other two species are established in small areas, *P. obtusus* in four States including California and *P. cultellatus* in Florida. The program is continuing releases of the two less established species of flies to supplement their current population levels. Reducing IFA populations will allow native ants to compete for resources, thus helping to restore ecological balance.

Karnal bunt

The FCREP program also addresses Karnal bunt, a fungal disease of wheat that was first detected in the United States in 1996. Many U.S. trading partners will not accept U.S. wheat unless it is certified to originate from areas where Karnal bunt is known not to exist. The program prevents the disease from entering the grain market system, spreading beyond the areas of Arizona where it is currently found, and directly impacting most other States. In 2014, farmers across the country planted 56.8 million acres of wheat and harvested more than 2 billion bushels of wheat with a value of nearly $12 billion. By keeping Karnal bunt contained to portions of one State, the program protects this wheat production across the country. USDA's Economic Research Service estimated in 2010 that, without the program's efforts, there would be a cumulative reduction of national net farm income of $8 billion over the next eight years. In 2015, 36 wheat-producing States participated in the Karnal bunt national survey. The program anticipates testing 1,200 samples for the year, with no positive samples reported as of October 27, 2015. Based on this national survey, the program certifies wheat exports to be free of Karnal bunt, assuring trading partners about the safety of U.S. wheat exports, retaining export markets, and facilitating wheat movement into domestic and international markets. The value of U.S. wheat exports was $7.8 billion in 2014 (USITC, 2015). Without the Karnal bunt program to certify these exports, this trade would be disrupted.

Witchweed

Another concern for the FCREP program is witchweed, a parasitic plant that can significantly damage corn, sorghum, and sugarcane. If witchweed were to spread throughout the Corn Belt, crop yields for corn and sorghum could decrease by 10 percent and trade in commodities from these areas could be negatively impacted. Since program activities began in 1957, APHIS and cooperators have successfully eradicated witchweed from 99 percent of the infested areas in North Carolina and South Carolina. These activities consist of frequent field inspections, treatment of infested acres (tillage, ethylene injections, hand-pulling and herbicide application), conducting post-eradication surveys, and addressing any new infestations. Annual surveys last into November each year. In 2014, APHIS and cooperators surveyed more than 88,000 acres and treated 2,888 acres. At the end of the 2014 growing season, there were 1,272 infested acres, a reduction of 121 acres from 2013. Because witchweed seeds can remain viable in the soil for up to 14 years, and a host plant must be present for witchweed germination, year-to-year fluctuations in the number of acres infested are common. The total number of infested acres may increase slightly at the end of the 2015 growing season. Efforts to contain and eradicate witchweed directly protect approximately 2,100 acres of corn worth $1.47 million in the area immediately impacted (Purdue, 2012). By preventing the spread of this

damaging weed, the program indirectly protects more than 90 million acres of corn valued at $52.3 billion in 2014 (National Agricultural Statistics Service).

4. Pest Detection

The goal of the Pest Detection Program is to document the distribution of plant pests and diseases of Federal regulatory significance in the United States. This documented information serves as the basis of APHIS' regulatory efforts and pest management programs that preserve economic opportunities for farmers (i.e., interstate commerce and international trade) and safeguard U.S. agricultural and natural resources. The program works with Federal agencies, State departments of agriculture, Tribes, academic institutions, and industry partners in all 50 States and several U.S. Territories to conduct these program activities.

APHIS and its State cooperators carry out plant pest surveys through the Cooperative Agricultural Pest Survey (CAPS) Program. APHIS provides national coordination for the program and develops policies and procedures for commodity- and resource-based surveys. These surveys enable APHIS and cooperators to target high-risk hosts and commodities, gather data about pests specific to a commodity, and provide accurate assessments of pest distribution, including pest-free areas. Early pest detection is important to avert economic and environmental damage; once a pest becomes established or spreads significantly, the mitigation costs can reach millions of dollars. This is in addition to lost farm revenues and damage to ecosystems. Additionally, while many entities are involved in protecting crops and resources, APHIS verifies that U.S. products do not pose risks to other countries. Pest surveys conducted through the program demonstrate absence of a pest, and are used in some cases to help address importing countries' phytosanitary requirements and retain access to many foreign markets.

In FY 2015, APHIS and cooperators conducted 259 commodity- and taxon-based surveys in 50 States and 3 territories (States conducted 120 surveys and APHIS conducted139). The program targeted 118 high-risk pests of national concern for survey in corn, oak, pine, small grains, soybean, and nursery crop commodities, as well as exotic wood boring bark beetles and cyst nematodes, among others, representing 93 percent of the target pests suggested for survey in the 2015 CAPS Survey Guidelines. Including pests of State priority, the program targeted 248 unique pests for survey in FY 2015, surpassing its performance target of 220. Surveys consisted of multiple pests for efficiency and economy of survey, with an average of seven to eight pests per survey and two to three surveys per State. Along with surveys conducted through the 2015 Farm Bill Plant Pest and Disease Management and Disaster Prevention program, APHIS and cooperators added 80 additional taxon and commodity surveys, and surveyed for a total of 346 unique pests overall.

Eleven new species in the United States were detected and confirmed through Pest Detection surveys, or otherwise reported to APHIS through entry in the National Agricultural Pest Information System database, as new or re-introduced to the United States. All 11 new plant pests were significant and listed as reportable/actionable as quarantine pests, where action would be taken if detected on conveyance at a port of entry. Examples include *Colletotrichum asianum*, *C. petchii*, and *C. queenslandicum* (leaf spots and anthracnose fungi) in Florida, California, and Hawaii, respectively; *Petrusa epilepsies* (Sea grape flatid) and *Tarophagus colocasiae* (Taro planthopper) in Florida; *Phakopsora phyllanthi* (a rust pathogen) in Hawaii; and *Phyllachora maydis* (Tar spot of corn) in Indiana. The program's target for FY 2015 was to detect 82 percent of the significant pest introductions before they spread from the area of original colonization and caused significant economic or environmental damage. The program detected 91 percent. None of these were a high-risk pest of national concern, specifically targeted for survey through the two programs; in effect, demonstrating freedom from high-risk pests nationally.

5. Plant Protection Methods Development

The goal of the Plant Protection Methods Development (PPMD) program is to develop scientifically viable and practical tools for exotic plant pest exclusion, detection, and management. These tools preserve economic opportunities for farmers and industries that engage in interstate commerce and international trade, and safeguard U.S. agricultural and natural resources from invasive plant pests. The program plays an essential role in APHIS' mission by developing tools for detecting exotic pests in survey programs; developing molecular diagnostic tests and identification tools for pest identification; developing integrated pest management methods, including biological control, to help eliminate or manage invasive pests; and developing phytosanitary treatments to support interstate

and international trade. A major focus of this program is to develop and implement biological control technologies that allow for the use of natural enemies alone, or in combination with other control tactics, to effectively mitigate the impacts of introduced, invasive insect pests, weeds, and plant pathogens, while minimizing impacts to the environment.

The PPMD program aims to develop new, or improve existing, tools each year to enhance APHIS' safeguarding capabilities. For pest identification, the program continues to design, develop, and deliver digital, media-rich, identification tools for APHIS to support trade and domestic, port, and offshore pest identification responsibilities. In FY 2015, APHIS released an enhanced web-based image library, *imageID*, which aids in pest identification, and increased the number of pest images accessible to users by 50 percent, with more than 60,000 images now available. The program also updated 10 mobile applications for plant pests. In addition, the program has improved molecular diagnostic tests to help determine the origin of fruit fly pest spread. In the area of phytosanitary treatments, the program exceeded its FY 2015 annual performance target by developing or improving at least five treatments for commodities, resulting in an increase in trade and a reduction in methyl bromide fumigations.

The program also develops pest management techniques that APHIS' national programs use to manage or eradicate invasive pest threats. For example, the program developed an improved fruit fly trapping lure in FY 2015 that is safer and easier to handle in supporting exotic fruit fly survey programs. The program also modified a fruit fly rearing diet that will save eradication programs more than $220,000 annually. In addition, the program promoted a non-regulatory solution for citrus growers by providing new systems approaches for growers impacted by Mexican fruit fly quarantines. This approach lessens the financial burden on growers by providing several options for moving citrus while managing risk associated with potential spread of Mexican fruit fly.

In FY 2015, the program also developed area-wide pest management and biological control methods for the Asian citrus pysllid, the vector for citrus greening. Specifically, the program provided training and technology transfer to California and private industry to build the capacity to produce more than 2 million *Tamarixia radiata* biocontrol agents per year for Asian citrus psyllid as well as rearing methods for a new agent, *Diaphorencytus aligarhensis*. In addtition, the program initiated an innovative use of unmanned aerial systems (UAS) for pest programs by obtaining a Federal Aviation Administration Certificate of Authorization to test the use of UAS to distribute sterile pink bollworm for the eradication program. This system also has applications for fruit fly and other pest programs, and would improve program efficiency and reduce manned aircraft costs.

The PPMD program also maintains its own quarantine and/or rearing facilities for biological control agents in Arizona, California, Colorado, Massachusetts, Michigan, Texas and Guatemala. In FY 2015, APHIS partnered with USDA's Agricultural Research Service (ARS), the U.S. Fish and Wildlife Service, State departments of agriculture, universities in 30 States and territories, and two Native American Tribes to evaluate and establish biological control agents for invasive plants, pests and diseases. Some key program targets included Asian citrus psyllid, brown marmorated stink bug, emerald ash borer, Asian longhorned beetle, hemlock woolly adelgid, spotted wing drosophila, mile-a-minute-weed**,** Dalmatian toadflax and Russian knapweed.

The program also notes recent success with a biological control agent for controlling an air potato (*Dioscorea bulbifera*), an herbaceous, perennial twining vine that attains lengths of 20 meters or more, allowing it to overtop and smother native vegetation. It was introduced to Florida in 1905 and has since become extremely aggressive. The biological control agent, *Lilioceris cheni* Gressitt & Kimoto (Coleoptera: Chrysomelidae), commonly known as air potato leaf beetle, is a host-specific specialist that feeds and develops only on *D. bulbifera*. The ARS' Invasive Plant Laboratory, located in Fort Lauderdale, acquired this beetle from China and acquired permission to release this beetle in 2011. APHIS has been supporting a mass-rearing and release effort through the Florida Department of Agriculture and Consumer Services (FDACS) in Gainesville, Florida, for the past 4 years. In 2015, FDACS reported that air potato has been nearly eliminated at many of the original release sites due to the rapid spreading of the air potato leaf beetle and it consumption of air potato.

In FY 2015, the program met its performance measure target of 78 for the cumulative number of biological control projects that APHIS develops, implements, or transfers to States and other stakeholders.

6. Specialty Crop Pests

The goal of the Specialty Crop Pests (SCP) Program is to protect U.S. fruits and vegetables, tree nuts, horticulture, and nursery crops from adverse impacts associated with invasive pests, such as crop damage or threats to international trade and interstate commerce. APHIS works with State, Tribal, university, and industry partners to develop and implement practices, policies, and regulations that prevent or mitigate impacts for invasive pests of Federal regulatory significance. These activities include verifying pest distribution, identifying and mitigating risk pathways to prevent long distance spread of the pests, developing and implementing diagnostic tools and pest mitigation strategies, and communicating with the public to gain support for program strategies. These efforts promote the ability of U.S. farmers to export their products, prevent damage to specialty crop production (helping to ensure the availability of fresh fruits and vegetables), and protect natural resources, including forests and residential landscapes. Among the pests and diseases the program currently addresses are exotic fruit flies, a variety of citrus pests and diseases, the glassy-winged sharpshooter (GWSS), pale cyst nematode (PCN), the light brown apple moth (LBAM) and the European grapevine moth (EGVM). Overall, the program directly protects specialty crop production worth approximately $9.8 billion in 2014 [based on APHIS analysis using National Agricultural Statistics Service (NASS) data]. The program indirectly protects additional specialty crop production worth more than $20 billion by preventing the spread of these damaging pests and diseases to new areas. Without the SCP program, U.S. trading partners might not accept a variety of U.S. fruits and vegetables. The value of trade in specialty crops that could potentially be disrupted each year is $8.9 billion, according to an internal APHIS report using NASS information.

Grapes

The SCP program targets several devastating pests and diseases that could affect grape production and impact export markets, including GWSS and EGVM. Thirteen States produce grapes commercially, with California accounting for more than 83 percent of the total acres in production, more than 1 million of bearing acreage in 2014 (NASS Noncitrus Fruits and Nuts 2014 Summary). In FY 2015, APHIS and the California Department of Food and Agriculture, along with industry partners, continued surveillance efforts for EGVM and did not detect a single moth during the year. APHIS and program partners had detected only one moth in FY 2014, compared to 40 the previous year (and down from more than 100,000 in 2010, the first year after EGVM was first detected in 2009). The FY 2014 detection was in an area of Sonoma County that had not previously experienced EGVM infestations. California officials conducted extensive trapping in the area and did not detect additional moths (the grower also treated the vineyard). If there are no further detections, APHIS expects to remove all EGVM quarantines by the end of FY 2016. A working group, comprised of APHIS, State, university, county, and grower representatives, is developing a post-eradication response plan that APHIS will monitor, to ensure that EGVM would be detected quickly if it recurred. A separate technical working group provides recommendations on the most effective and efficient methods to conduct EGVM monitoring activities.

APHIS also continued the successful, cooperative GWSS program designed to suppress populations of this pest in grapes, citrus, and nursery stock. GWSS is a vector for Pierce's disease (a serious threat to grapevines), and the program's suppression and regulatory activities work to prevent the spread of the disease across California. Higher pest populations associated with warmer temperatures and dry conditions in the State have challenged the GWSS program over the last several years. In FY 2015, the program continued to conduct surveys and other regulatory activities (including inspections of nursery stock and bulk citrus) for the pest in 49 California counties and continued area-wide suppression activities in affected agricultural production areas of four California counties. With citrus growers' voluntary suppression treatments, the program covered more than 29,000 acres. Of the more than 36,000 shipments of nursery stock from infested areas, only six were rejected due to GWSS. Additionally, with grower funding, the program has eradicated 17 GWSS infestations in urban areas since it began. Finding and eliminating these urban infestations early prevents them from spreading into agricultural production areas. In FY 2015, the program adjusted its schedule for treatments and other activities based on earlier GWSS egg-laying activity. Program officials continue to evaluate what other adjustments will be necessary to continue mitigating the effects of this pest. Together, the EGVM and GWSS programs directly protect grape production worth $3 billion in 2014 in the impacted areas and protect another $2.7 billion worth of grape production through preventing the spread of the pests to new areas (figures derived from internal APHIS report using 2014 NASS data).

Citrus

Citrus fruits are high-value specialty crops and a nutritious food for consumers across the world. In FY 2014, the United States was the world's third largest producer of citrus and among the top five citrus exporters (according to the Global Trade Atlas Database). APHIS supports the citrus industry's continued ability to produce, harvest, process, and ship citrus fruits and nursery stock despite the presence of diseases such as citrus canker, citrus greening or huanglongbing (HLB), and citrus blackspot. In FY 2015, the program expanded citrus greening quarantines in Texas to include all of the citrus producing counties, and the number of California counties partially or completely quarantined because of the Asian citrus psyllid (ACP) increased from 14 to 16. In addition, HLB was detected in a residential area in the Los Angeles Basin near the 2012 detection, which increased the total quarantine to 180 square miles. APHIS also expanded quarantines for citrus blackspot in Florida based on detections in new areas. In October 2015, APHIS and cooperators in Texas detected citrus canker in a residential area in that State, and the program is conducting surveys to determine the size of the affected area. APHIS' flexible regulatory protocols have minimized the impact of the quarantines on growers, who can move citrus out of quarantined areas to packinghouses if they follow mitigation procedures to prevent the disease or its insect vector from spreading. More than 5,800 businesses were able to move regulated host materials such as citrus and nursery stock under compliance agreements with APHIS in FY 2015. APHIS also continued to support area-wide management of the ACP, an insect vector that spreads HLB, in Florida by providing survey data every three weeks to the growers participating in Citrus Health Management Areas (CHMAs). Citrus growers participating in CHMAs, which are managed by Florida Department of Agriculture and Consumer Services, coordinate the applications of pesticides to suppress ACP populations in commercial citrus groves. The 48 CHMAs in Florida continue to represent approximately 93 percent of the State's citrus acres in production. ACP counts are significantly lower when ACP management is coordinated. APHIS and its State counterparts support similar initiatives in California and Texas. Texas growers initiated their CHMAs in FY 2015 to coordinate efforts to combat the spread of ACP and/or HLB. In FY 2015, APHIS also continued a biological control program targeting ACP. This program, which employs a predatory wasp against ACP, augments current management methods, especially in residential areas in California, Arizona, and Texas, where use of chemical pesticides is undesirable. Biological control efforts in Texas have reduced the ACP population by 50 percent. Louisiana also began releasing biocontrol agents to suppress ACP in FY 2015. With the HLB Multi-Agency Coordination Group, the program funded projects in FY 2014 and FY 2015 with the goal of increasing production of biological control agents from approximately 4 million in FY 2014 to 10 million by FY 2016. The projects exceeded the targets, producing 8.5 million in FY 2015 with an estimate of 12 million for FY 2016. These citrus health activities directly protect citrus production on approximately 765,000 acres in the United States worth more than $3.3 billion for the 2014-2015 growing season (NASS 2014 Citrus Fruits Summary). Without APHIS' activities, citrus exports could be at risk each year. In 2014, the value of U.S. citrus exports totaled $965 million (U.S. International Trade Commission).

Tree Fruit and Nursery Stock

APHIS protects a wide variety of specialty crops (especially tree fruit and citrus) through exotic fruit fly exclusion and detection activities. One of our key strategies is maintaining a barrier against the spread of the Mediterranean fruit fly (Medfly) northward from Central America. Medfly is one of the most destructive agricultural pests in the world, attacking more than 300 cultivated and wild fruits and vegetables. APHIS and cooperators produced one billion sterile Medflies per week in FY 2015 to maintain the barrier in Mexico, Guatemala, and Belize and to release on a preventive basis in high-risk areas of California and Florida. The international, cooperative program maintained the Medfly free area in Mexico, Guatemala, and Belize of approximately 149,000 square kilometers in FY 2015. Domestically, APHIS and State cooperators maintain the cooperative Preventive Release Program , which releases sterile fruit flies in high-risk areas to prevent any introduced Medflies or Mexican fruit flies (Mexflies) from reproducing and establishing a population in the United States. When outbreaks occur, APHIS and cooperators implement immediate emergency response activities to eradicate them. The United States faced a significant increase in the number of exotic fruit fly outbreaks in FY 2015—12 outbreaks compared to 4 the year before. These 12 outbreaks occurred in each of the areas vulnerable to exotic fruit fly introductions (California, Texas, and Florida) as well as Puerto Rico, which experienced its first Medfly outbreak ever. APHIS and cooperators implemented response activities to each outbreak using proven strategies to prevent the fruit flies from becoming established and spreading in the United States. In FY 2015, APHIS and cooperators completed eradication activities for five of the outbreaks and will continue operations to eradicate the remaining seven outbreaks in FY 2016.

APHIS also provided assistance to the Dominican Republic in managing a large Medfly outbreak in its territory. These activities protect producers of citrus, stone fruits, vegetables, and a variety of other specialty crops from damages associated with the pests, increased production costs, and export restrictions.

APHIS and cooperators also work to address plum pox virus (PPV) and LBAM to protect producers of tree fruit and other specialty crops. In FY 2015, APHIS and cooperators in New York continued surveys to confirm that PPV, a disease that affects stone fruit, is eradicated from Niagara County, New York. Based on several years of negative survey results, APHIS lifted quarantine regulations on the county. APHIS will continue monitoring the area. Additionally, APHIS is monitoring areas along the Niagara River that border an area in Canada with a PPV infestation. In September 2015, a single PPV-positive tree was detected in Ulster County, New York, which is more than 200 miles away from the previously affected areas. APHIS and cooperators took several thousand samples, and detected no additional positives. APHIS is implementing a quarantine for the area and will reassess the boundaries after next year's season begins. APHIS and New York cooperators will remove the affected tree and trees in the buffer zone, and APHIS will compensate growers based on the program's compensation regulations. Trace-back investigations are underway to determine the origin of the introduction. With funding from the Pest Detection - Cooperative Agriculture Pest Survey program and Farm Bill, APHIS continues to support yearly PPV detection surveys throughout the United States to ensure that this disease is not present in other areas. Currently, 36 states with commercial stone fruit production participate in the national stone fruit commodity survey, which is conducted on a rotating basis among participating states.

In FY 2015, APHIS and the State of California continued to monitor LBAM and found that the pest had spread to one new county, for a total of 21 counties in California. APHIS continues to evaluate pathways through which LBAM could spread and ensure that California products can be moved safely.

APHIS protects natural resources and nursery stock production and trade by limiting the spread of *Phytopthora ramorum* from quarantine areas and affected nurseries through regulatory strategies and adoption of mitigations and changes to cultural practices. *P. ramorum,* which causes sudden oak death, can be moved through host nursery stock and can affect a variety of forest trees. APHIS and State efforts have kept the disease from impacting natural resources, outside of 15 counties in California and a small area in Curry County, Oregon, for more than 10 years. Over the last several years, APHIS has streamlined the *P. ramorum* regulatory framework for nurseries shipping host nursery stock interstate through two Federal Orders that relieved regulatory requirements on 2,800 low-risk nurseries. Since March 2014, for nurseries outside the quarantine areas, the program is only regulating those that are positive within the preceding three years and that ship host nursery stock interstate. Because of the presence of *P. ramorum* in the surrounding environment, nurseries within the quarantine area that ship interstate must meet annual certification survey and sampling requirements to prevent the movement of potentially infested material. Any interstate shipping nurseries that test positive must participate in a compliance program using disinfestation protocols to eliminate the pathogen and implement required mitigations focused on critical control points to reduce the risk of reintroduction. Currently, 21 nurseries are participating in the program. Along with the streamlined regulatory program, APHIS and State cooperators have targeted inspection efforts toward the highest risk nurseries. Based on this targeted approach, Oregon inspectors visited the highest risk nurseries early in the nursery shipping season in FY 2015 and were able to prevent potentially infested material from being shipped from a large nursery that tested positive.

Through all of these activities, APHIS directly protects nursery stock production worth approximately $1.5 billion (2012 Census of Agriculture) and tree fruit worth more than $1.5 billion (APHIS Internal Analysis based on NASS data). Through keeping pests and diseases like exotic fruit flies, PPV, and LBAM from spreading to new areas, the program indirectly protects more than $13.9 billion in fruit and nursery stock production (figures from 2012 Census of Agriculture).

Potatoes

APHIS addresses two major potato pests, the PCN in Idaho and the golden nematode (GN) in New York. APHIS and cooperators have confined each to a relatively small area, and continued survey and regulatory efforts protect export markets for U.S. potatoes from 36 States. In FY 2015, APHIS tested 62,379 soil samples in Idaho for the PCN eradication effort and 5,409 for the nationwide detection survey. PCN has not been detected outside of Idaho,

and fumigations of infested fields in Idaho have reduced PCN populations by 99 percent since the pest was first detected in 2006. Based on delimiting survey results, APHIS released more than 2,000 acres of fields that had been regulated because of their association with other regulated or infested fields in FY 2015. Based on infested field detections in the first quarter of FY 2015, the program also added approximately 3,700 acres to the regulated area. The PCN program regulates a total of 10,316 acres, of which 2,897 acres are infested. In the treated fields, that no longer show PCN viability according to a greenhouse bioassay test, producers can plant potatoes with continued monitoring by APHIS and cooperators to ensure PCN is not present. By the end of FY 2014, seven Idaho fields had successfully completed the greenhouse bioassay phase of evaluating eradication progress. In FY 2015, the remaining one eligible field successfully completed bioassay testing. These fields remain regulated but are benefiting from reduced sanitation requirements and are eligible to return to potato production. One grower decided to plant potatoes in FY 2015, and his crop has been harvested with promising early indications that PCN is not present. The program will conduct full-field surveys to check for viable PCN following each of the next three potato crops. Final results of the sampling will be available in the winter. The program is also developing new mitigation tools for PCN that may serve as alternatives to methyl bromide fumigations or provide additional control following fumigation. These include the use of trap crops (planting a crop similar to potatoes that will stimulate nematodes to hatch but not allow them to reproduce) and fungus and biological control agents as control tools. APHIS and cooperators planted the trap crop on a pilot basis in several areas in FY 2015 and will evaluate the results during the upcoming fiscal year.

In FY 2015, APHIS and New York cooperators in the GN quarantine collected and tested 4,528 soil samples from 1,959 acres. The program also conducted 1,744 regulatory treatments to ensure that equipment moving out of the affected area does not pose a risk for spreading the GN. By the end of FY 2015, nine fields had successfully completed three consecutive in-field bioassay crops with zero viable cysts detected. The fields remain regulated but benefit from relaxed sanitation requirements and enhanced crop options. In FY 2010, the GN program began a review of its regulatory strategy using the experience of the more recently established PCN program. Adopting strategies used in the Idaho program, the GN program is transitioning to focus on fields that are either infested or associated with infested fields rather than political boundaries such as townships. The program changes allowed the program to reduce the quarantined area by 76 percent by removing a total of 964,661 acres from quarantine, approximately one third of which had been developed for commercial or residential uses. These efforts removed unnecessary restrictions on landowners while continuing to prevent the movement of GN. Together, these efforts to address PCN and GN directly protect potato production worth $409 million in and around impacted areas. These programs indirectly protect one million acres of potato production nationwide worth $3.9 billion (NASS 2014). Without these programs in place, trading partners might not accept U.S. potatoes, exports of which were worth approximately $198 million in 2014 (U.S. International Trade Commission).

7. Tree & Wood Pests

The Tree and Wood Pests (TWP) program protects forests, private working lands, and natural resources from the Asian long-horned beetle (ALB), emerald ash borer (EAB), and gypsy moth. Numerous native hardwood tree species that are common throughout the United States are vulnerable to these pests. APHIS cooperates with Federal, State, Tribal, and local agencies, organizations, and institutions to conduct survey, regulatory, control, and outreach activities in 48 States to manage and, in some cases, eradicate these pests. Conserving forests enhances the economic vitality of rural communities by supporting forest-related industries, recreation and tourism, and the overall livability of communities. The value of forest products and ecosystem services protected by APHIS per program dollar spent is approximately $21,000. In addition, trees in residential areas lower cooling bills, filter pollutants from the air, decrease runoff, and improve residents' quality of life. Annually, forest pests could cost local governments up to $1.7 billion due to tree damage and removal, and $830 million in lost residential property values according to a 2011 study conducted through the National Center for Ecological Analysis and Synthesis Working Group. Without Federal funding, forest pests would spread more rapidly throughout the United States, and responding to newly introduced pests would become increasingly difficult.

Asian long-horned beetle

The ALB threatens forest resources nationwide, as roughly 30 percent of U.S. trees are potential ALB hosts. The program's ALB eradication activities prevent multi-billion dollar losses to the maple syrup, timber, tree nursery,

trade, and tourism industries. The annual contribution of forest-based manufacturing and forest-related tourism and recreation to the economies of Ohio, New York, and New England is approximately $35 billion. ALB was first detected in Brooklyn, New York, in August 1996, and was later found in other areas of New York, Illinois, New Jersey, Massachusetts, and Ohio. The program has successfully eradicated ALB from Chicago, Illinois; Islip, Staten Island, and Manhattan, New York; Jersey City, Middlesex County, and Union County, New Jersey. The program continues to conduct surveys in regulated areas of New York, Ohio, and Massachusetts.

APHIS' eradication strategy for ALB includes surveys, regulatory inspections and quarantine restrictions, removal of infested and high-risk trees, and chemical treatment applications. APHIS conducts several cycles of surveys to determine the scope of infestation, establish a quarantine area, identify trees to remove or treat, determine if the pest has spread outside of the established quarantine area, and determine when to release an area from quarantine. To declare full eradication, a final round of negative survey is required with control activities and the completion of secondary surveys. Four years is the minimum amount of time between that last detection of the pest in a given area and the completed final survey cycle. APHIS provides ongoing support to evaluate new methods and protocols to combat regulated pests and tailors project responses to site-specific conditions, resulting in a more efficient program. In FY 2015, the program continued to work to examine new detection technologies for traps. In addition, the program is conducting research to determine which chipping methods and chip sizes are adequate to kill ALB in infested trees. Current guidelines for chipping methods require chips from removed host trees to be at least 1 inch in two dimensions for the material to no longer be considered a regulated article. This research may result in additional options for chipping regulated material.

In FY 2015, the program modified survey protocols as well as the host list for ALB. As a result, these modifications allowed for increased efficiency and cost savings. For example, amended survey protocols allowed the program to focus on only surveying maples from .5 to 1.5 miles from an infested tree, instead of surveying all host trees in that area. The host list was updated to remove Celtis (hackberry), a small to medium-size tree used in inexpensive furniture where a light-colored wood is desired. Additionally, in Ohio, the program applied the third and final pesticide treatments in the two satellite infestations in the Batavia and Stonelick Townships.

APHIS measures performance by tracking progress toward eradication. The program met its targets for FY 2015 and has eradicated 82 percent of the New York infestation, 30 percent of the Massachusetts infestation, and 8 percent of the Ohio infestation. APHIS is continuing to delimit the Clermont County, Ohio, and Long Island, New York infestations. In FY 2015, APHIS focused on a second survey of the core infested area in Ohio and determining the quarantine boundary on Long Island.

Emerald ash borer

Another forest pest of program concern is the EAB. In 2002, this pest was first detected in Michigan and has since been detected in 25 additional States, an increase of two since the end of FY 2014. Even though the pest was detected in these two States in FY 2015, it had likely been introduced into those States years earlier. In FY 2015, the program used a risk-based model to determine the best places to focus survey and trapping efforts, which helped identify the infestations. APHIS, along with Federal, State, and local agencies and stakeholder groups, continues to mitigate the human-assisted and natural spread of the pest and is continuing development of a biological control initiative designed to effectively manage EAB populations. APHIS will continue with regulatory enforcement at the leading edge of the infested region, outreach activities and national coordination with impacted States.

The program's biological control initiative provides a promising strategy, using three parasitic wasps for long-term EAB management. In FY 2015, the program conducted trial releases of the wasps in 20 States: Arkansas, Colorado, Connecticut, Illinois, Indiana, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and Wisconsin. Current trial releases focus on assessing the impacts of the wasps on EAB populations and tree health at and near release sites. The program expects an initial assessment of these impacts to take several more years. In FY 2016, APHIS plans to release the biological control agents in all States that request them. The program released 1.2 million parasitic wasps in FY 2015.

The program's regulatory framework, which focuses on the leading edge of the infestation and contiguous quarantine areas, maximizes the efficient use of resources while minimizing impacts on regulated businesses in quarantined areas. In FY 2015, APHIS expanded the quarantine area to approximately 620,000 square miles, based on the detection of infestations in unregulated areas of previously affected States. To prevent further artificial spread, the program regulates EAB host materials such as logs, firewood, and nursery stock. In FY 2015, APHIS maintained approximately 1,000 compliance agreements with businesses that handle EAB host materials. With these agreements, the program regulates the treatment and movement of host materials from quarantined areas.

In FY 2015, the EAB infested area grew by an estimated 17 percent, exceeding the projected growth estimated at 15 percent. In addition, there were 47 detections outside of regulated areas recorded in FY 2015; slightly down from the 57 detections in FY 2014, but up from 32 in FY 2013. Although the number of new, non-regulated counties is slightly down from FY 2014, these results continue to demonstrate improvements in the survey component of the program, including availability of improved detection tools, a sophisticated risk assessment-based method of developing each year's survey design in collaboration with the U.S. Forest Service (FS), and increased public awareness of EAB symptoms and reporting procedures for suspect trees. In addition, APHIS and the FS have developed a computer based survey design tool based on the same risk assessment that State and local agencies can use to implement EAB surveys. This tool will allow local surveys to integrate with APHIS survey work to provide a better indication of where EAB is established.

Gypsy Moth

European gypsy moth (EGM) is a destructive pest to some of North America's most beautiful and popular deciduous trees, including maples, oaks, and elms. This pest is established in all or parts of 20 northeastern, mid-Atlantic, and Midwestern States, as well as the District of Columbia. APHIS and State cooperators conduct regulatory activities in the quarantine area to prevent the human-assisted spread of the pest and the establishment of gypsy moth populations in non-quarantine areas. These efforts include inspection, treatment, and certification of regulated articles for movement from quarantine to non-quarantine (non-infested) areas. The program issues compliance agreements and conducts public outreach to ensure that businesses and residents in infested areas comply with regulations to prevent long-distance spread of the pest. The EGM also spreads naturally into areas bordering the quarantined zone. APHIS monitors the transition zone along the 1,200 mile-long border of the quarantine area to ensure that newly infested areas are added to the quarantined zone and regulated effectively. Working with the FS and the EGM Slow-the-Spread Foundation, APHIS and cooperators have greatly slowed the spread of EGM and eradicated isolated populations, keeping this pest from becoming a larger issue. In FY 2015, APHIS and State cooperators continued to conduct EGM surveys to detect, delimit, and eradicate any isolated populations. No additional areas were added to the gypsy moth quarantine in FY 2015.

Asian Gypsy Moth (AGM) is an invasive threat to North American urban and natural forests because of its broad host range, demonstrated damage potential, and its ability to compromise an effective management system that has taken nearly 100 years of research to assemble against EGM. The program conducted delimiting surveys in Oklahoma in FY 2015 in response to single detections of AGM there in FY 2014 and FY 2013. A single AGM also was found in South Carolina in FY 2014. Delimiting surveys around this detection caught another single moth in FY 2015, and the area will again be subject to delimiting survey work in FY 2016. Additionally, there were multiple detections of EGM and AGM in Oregon and Washington in FY 2015, specifically in the Seattle and Portland areas. A combination of treatments and delimiting survey work planned in response to these detections in the Pacific Northwest. APHIS aims to eradicate any developing AGM population at the first opportunity, which, based on the moth's biology, normally begins the following season.

Selected Examples of Recent Progress – Wildlife Services:

1. Wildlife Damage Management

APHIS provides Federal leadership and expertise to resolve wildlife conflicts. Specifically, APHIS works to protect agriculture, human health and safety, property, and natural resources from disease and damage caused by wildlife. Cooperator participation and support is critical to the success of the Wildlife Damage Management (WDM)

Program. APHIS' wildlife biologists coordinate activities in every State with Federal and State agencies, Tribes, local governments, private homeowners, farmers, ranchers, and other property owners to protect lands.

Agriculture

The 2010 and 2011, the National Agricultural Statistics Service (NASS) estimated predators kill more than $137 million worth of livestock each year. APHIS prevents and reduces livestock predation through technical assistance to producers (education and outreach), and operational management programs. The majority of WDM predation management programs are supported by a combination of appropriated and cooperator-provided funds.

APHIS plays an important role in the predation management of wolves and grizzly bears in the United States. APHIS personnel work closely with State wildlife agencies, the U.S. Fish and Wildlife Service, and tribes to conduct wolf damage management programs, and provide services to index wolf and grizzly bear populations for monitoring purposes. In FY 2015, APHIS responded to 482 reported wolf depredations. In FY 2015, APHIS assisted livestock producers in protecting millions of sheep, cattle, and goats from predation. For example, in FY 2015, APHIS protected more than 6.5 million head of cattle, sheep, and goats valued at more than $2.5Billion.

Feral swine are a harmful and destructive invasive species. These invasive animals cause significant damage to property, agricultural animal health and crops, natural resources, public health and native ecosystems. A Cornell University study estimated the total cost of feral swine damage in the United States at $1.5 billion annually. To address this growing problem, APHIS initiated the National Feral Swine Damage Management Program in FY 2014 with the goal of reducing damage and risk to agriculture, natural resources, property, animal health, and human health and safety in the United States by decreasing damage and by reducing or eliminating feral swine populations in selected areas. In FY 2015, APHIS published in the *Federal Register* a draft Environmental Impact Statement outlining options for implementing this program. After careful review of all comments, APHIS proceeded with a nationally coordinated, integrated program beginning in FY 2015. APHIS will serve as the lead Federal agency in a cooperative effort with other agency partners, states, territories tribes, organizations, and local entities that share a common interest in reducing or eliminating problems caused by feral swine.

APHIS established individual State-level management control plans that include damage reduction, population management, or total elimination of feral swine populations. In FY 2015, APHIS established operational programs on more than 130 million acres in 41 States, in cooperation with landowner, States, Tribes, and other Federal agencies and organizations. With the use of newly available technology, such as cameras mounted on Unmanned Aircraft Systems, APHIS located feral swine populations and, in FY 2015, the Agency successfully eliminated feral swine from four States. The Agency will continue to monitor these States for the next two years to ensure feral swine do not reestablish themselves in those areas. APHIS conducts disease surveillance and monitoring to protect the health of domestic swine. In FY 2015, APHIS collected 2,800 feral swine biological samples to assess disease risks. APHIS also partnered with the NASS to assess the extent of feral swine damage to crops. Similarly, APHIS worked cooperatively with several 1890 University programs to determine damages to limited resource farmers. APHIS will publish the results for both studies in FY 2016.

Wildlife disease biologists provide technical assistance, conduct surveillance, and maintain control of more than 55 wildlife diseases, pathogens, and syndromes. Internationally, APHIS developed and initiated a pilot for an international training course in “Wildlife Disease Monitoring and Management.” Due to the success of the pilot, APHIS provided a second program in the same FY. Additional international programs include: collaborating with Colorado State University and the Foreign Agricultural Service to develop and conduct a diagnostic training course in Indonesia, including a necropsy laboratory; collaborating with Colorado State University on bat disease surveillance in Cambodia; collaborating with the Chinese Academy of Science on wildlife disease issues; and collaborating with the Swedish University of Agricultural Sciences, Makerere University, Uganda Ministry of Agriculture, Animal Industry and Fisheries, Uganda Wildlife Authority, and International Livestock Research Institute to conduct African Swine Fever surveillance in Uganda. Finally, the WDM program served on a U.N. Food and Agriculture Organization task force for wildlife disease, and conducted surveillance for Japanese Encephalitis and Chikungunya in Hawaii, Guam, and Pacific Island Territories.

Human Health and Safety

Rabies is one of the oldest known viral diseases, yet it remains a significant wildlife-management and public-health challenge. APHIS is the lead Federal agency to prevent the further spread of wildlife rabies, with the goal of eliminating rabies in carnivores in the United States through the use of oral rabies vaccination (ORV). In FY 2015, APHIS and cooperators distributed more than 10.6 million ORV baits over 192,421 square kilometers. This is a continuation of the strategic distribution of more than 165 million baits since the program began in 1997. These programs have led to the elimination of canine rabies in coyotes, resulting in the United States being declared canine rabies free in 2007; the near elimination of gray fox rabies from Texas; and containment of raccoon rabies in the eastern United States. An internal economic analysis projected a $1.1 billion economic impact over 22 years in the absence of the APHIS-led ORV program.

APHIS works with the Centers for Disease Control and Prevention and the Wistar Institute to streamline the use of a rapid rabies diagnostic field procedure to diagnose the disease within an hour. Since 2005, APHIS has conducted 71,886 rabies tests using this procedure, documenting 1,337 rabies cases, which in turn, facilitated science-based wildlife rabies management decisions. APHIS also coordinates with international partners through the North American Rabies Management Plan — which includes the United States, Canada, Mexico and the Navajo Nation — on surveillance activities, control programs, vaccine development, and field trials. An improved vaccine-bait combination holds promise for enhanced raccoon rabies control in the United States. In FY 2015, APHIS continued to conduct field trials on a novel oral rabies vaccine (ONRAB) targeting raccoon, skunks, foxes and coyotes. APHIS conducted a second year of ONRAB field trials in West Virginia targeting skunks with higher bait density distribution. APHIS also conducted ONRAB field trials in Vermont and New York in both rural and urban-suburban habitats and is in the process of evaluating scientific evidence for potential licensing of this vaccine.

Increased air traffic, faster and quieter aircrafts, increased populations of Federally-protected species of birds, and increased populations of other wildlife all impact the safety of aircrafts, particularly in rural communities. Wildlife strikes cost commercial aviation approximately $4.8 billion in the United States since 1990 and annually account for approximately $1.2 billion worldwide. Since 1988, bird and other wildlife strikes have destroyed more than 100 civilian and military aircraft in the United States and killed 57 people. With funding provided by Federal, State and local cooperators, APHIS works to reduce wildlife impacts on aircraft and human safety. In FY 2015, APHIS mitigated wildlife hazards by assisting more than 850 civil and military airports nationwide. APHIS has similar programs at more than 140 domestic and international Department of Defense airbases that reduced wildlife strikes to military aircraft.

Property

Beaver damage in the southeastern United States has exceeded $3 billion over the last 40 years. To address and prevent costly beaver damage, APHIS removes beaver dams that clog waterways and flood roads and timber sources. On average, for every dollar spent in managing beaver damage, approximately $15 of resources are saved. In FY 2015, APHIS conducted beaver damage management activities in 37 States. In South Carolina, the Agency removed more than 1,400 beaver dams, reducing damage by an estimated $2.05 million, primarily to roads and bridges. In Wisconsin, APHIS worked with the State, tribes, and the U.S. Forest Service to protect and restore more than 1,540 miles of trout streams and economically and culturally important wild rice beds, and to protect roads, bridges, impoundments, and railroads. Other beaver damage management protected more than $8 million in resources including; cold water trout streams, timber, roads and bridges, crops and pastures, drainage control structures and utilities.

Natural Resources

Non-native, invasive animals can devastate ecosystems. APHIS focuses on eliminating damage from brown treesnakes (BTS), nutria, and other invasive species. In Guam, BTS have eliminated most species of native birds, lizards, and bats, and continue to cause power outages leading to economic losses and public safety problems. In FY 2015, pursuant to funding other Federal departments and the Guam Department of Agriculture contributed, APHIS led a multi-agency partnership to prevent BTS movement from Guam to other Pacific Islands, Hawaii, and the continental United States. In FY 2015, the Agency intercepted approximately 21,500 BTS in Guam.

Nutria damages wetlands, agricultural crops, and structural foundations such as dikes and roads. This South American rodent has destroyed tens of thousands of acres of marshlands critical to the health of the Chesapeake Bay. APHIS is leading the first large-scale North American effort to eradicate a mainland nutria population in the Chesapeake Bay through agreements with the U.S. Fish and Wildlife Service and other cooperators. Since 2002, in cooperation with Federal and State agencies and private landowners, APHIS has removed nutria from more than 250,000 acres of coastal marshland. APHIS has prevented the re-infestation of this area, and marsh grasses and native muskrat populations are quickly recovering. In FY 2015, APHIS monitored approximately 250,000 acres and will continue over the next several years to find and remove any remaining individual nutria.

APHIS partners with various Federal and State resource agencies, private organizations, and community groups to conduct damage management that benefit protected bird species by protecting nests, eggs, juveniles, and adults from predation by other birds and mammals. APHIS has estimated damages or damage threats to birds, including threatened and endangered species, to be more than $70 million. Between FY 2011-2015, the Agency conducted an estimated 4,698 conservation actions that benefitted protected species in 37 states, Guam, Virgin Islands, and Cuba (Guantanamo Bay).

2. Wildlife Services Methods Development

The Wildlife Services Methods Development (WSMD) Program develops effective and socially responsible methods and information to manage conflicts between people and wildlife to protect agriculture, natural resources, human health and safety, and property. This program provides research in support of the Agency's animal health programs such as feral swine, invasive species, wildlife disease research, and population and reproduction control, among others. APHIS' National Wildlife Research Center (NWRC) provides the only dedicated Federal leadership in developing methods to manage wildlife-related damage problems. Scientists work on a variety of wildlife damage management problems, including discovery, development, and technology transfer of products and management methods. The majority of NWRC studies involve partnerships with State and Federal agencies, non-governmental organizations, universities, tribal governments, and private sector businesses. In FY 2015, NWRC initiated 162 new studies and published 92 scientific papers in 51 professional scientific journals.

Agriculture

The WSMD program develops methods to safeguard livestock from predators, manage invasive species, and minimize the impact of wildlife diseases. The following are examples of efforts to protect American agriculture, which includes protecting resources related to farming and ranching, such as livestock, crops, timber, and animal products, and other associated industries.

Invasive feral swine have expanded from 17 States to 41 over the past 30 years. APHIS' National Feral Swine Damage Management Program aims to reduce feral swine damage. In FY 2015, the NWRC conducted research activities to develop and register a toxicant and delivery system, monitor populations, develop tools for guiding management decisions, develop methods for assessing damage, and determine the economic impacts of feral swine damage and the return on control methods. A critical component in the long-term success of reducing feral swine populations is the availability of an effective toxicant and delivery system. APHIS evaluated a new modular bait dispensing system for delivering toxicants to reduce populations of feral swine. The system is selective for feral swine, maximizes availability of bait to the maximum number of pigs while excluding non-targeted species. The Agency also developed a method for detecting the DNA of feral swine in water populations. As a result, the program can detect the presence of a few feral swine in an area, and facilitate the removal of the animals before the population increases and removal becomes more difficult or not possible.

Livestock producers use many methods to reduce predation from coyotes, bears, wolves, mountain lions, and domestic dogs. An effective predator management program typically incorporates a variety of methods to increase productivity. Livestock protection dogs can be important component of an overall predation management program. Smaller breeds that have historically been used effectively to limit coyote predation are proving inadequate protection against wolves and grizzly bear in areas where populations of those predators are increasing/expanding range. In FY 2015, the NWRC completed a third season of evaluating livestock protection dogs for reducing wolf

depredation on livestock where wolves have been introduced. In addition, the study was expanded to include 17 livestock producers and 18 bands of sheep in 5 states. The NWRC compared three breeds of dogs, commonly used to protect livestock from wolf predation in Europe, to dogs typically used in the United States to prevent predation by coyotes. Results from the study will be available in FY 2016.

Climate change has increased the average temperatures found along the Texas-Mexico border, and as such vampire bats in Mexico are expanding their range northward and pose a risk of invading the United States. APHIS estimates that a range expansion of these bats would increase losses to the U.S. cattle industry attributable to rabies, to the order of $7-$9 million per year. In collaboration with the U.S. Geological Survey, the Agency developed multiple species distribution models and maps for vampire bats. These methods will enhance our understanding of the current distribution and predict future distribution of this species under climate change regimes.

Populations of double-crested cormorants have increased dramatically over the last three decades with significant impacts on the aquaculture industry and natural fisheries. NWRC researchers found that cormorants did not present significant risks to carry avian influenza viruses, but did represent a significant risk to carry and transmit Newcastle disease virus, a contagious bird disease that affects many domestic and wild avian species. As a result, NWRC researchers recommend managing this species around water sources near poultry production facilities.

With Agency funding, the NWRC is developing cost effective "point of source" detection technologies to be for monitoring and detecting HPAI viruses in water. Preliminary laboratory experiments were able to concentrate avian influenza virus 800-1600 percent from relatively low levels of virus in water. This prototype methodology may be a critical component enabling deployment of a geographically wide-spread surveillance effort to estimate risk and vulnerability for exposure to HPAI viruses.

Natural Resources

The NWRC develops methods that protect natural resources from the impacts of invasive species, while minimizing or eliminating the use of toxicants that could damage the environment or contaminate food sources for non-target animals. The following are examples of efforts to protect natural resources, which include those resources associated with publically managed parks, lakes, state and national forests, fish, and wetlands.

Numerous local and Federal agencies are involved in efforts to reduce the invasive brown treesnake (BTS) population on Guam and prevent the species' spread to other islands in the Pacific. In FY 2015, APHIS and partners from the Departments of Defense and Interior, and the Guam Department of Agriculture continued an evaluation of aerial broadcasts of acetaminophen-treated mice baits in reducing BTS populations in densely forested habitats. Also, APHIS and its partners conducted 18 bait drops on 2 treatment sites totaling 136 acres. The successful delivery of this toxic bait is a critical next step towards developing a method for large area control of BTS in remote and inaccessible areas of Guam. Intensive monitoring of BTS activity after the bait drops showed a 69 to 82 percent reduction in BTS activity in the treated area and no evidence of impact to non-target species. This project will continue in FY 2016 and helps evaluate the method to improve operational control of BTS on Guam.

Partnerships and Technology Transfer

The Federal Technology Transfer Act of 1986 allows Federal laboratories and industry to form partnerships that enhance the development of new technologies and move them to the marketplace to meet public and consumer needs. APHIS regularly partners with Federal and state entities, private companies, international groups, and non-governmental organizations to encourage the development and licensing of new wildlife damage management products to manage wildlife conflicts.

In FY 2015, APHIS, in partnership with Applied Design Corporation, won two U.S. Government's Federal Laboratory Consortium Awards for excellence in technology transfer for a system of aerial delivery of toxicant bait to control invasive BTS in remote and inaccessible areas on Guam. As a result of this collaboration, not only was a cost-effective and environmentally-safe method designed and developed, but four patents are being pursued to eventually commercialize the technology for use in other wildlife damage management applications worldwide (e.g. rodent eradication efforts for bird conservation on islands).

In addition, APHIS executed 10 new Cooperative Agreements and 25 new Material Transfer Agreements with private and government partners; executed three new Cooperative Research and Development Agreements (CRADAs) with companies for the development of new methods; developed six new CRADAs with four companies; and filed a Utility Patent Application for a bird-repellent rodenticide for California voles, a significant agricultural pest. This invention will significantly reduce non-target hazards (birds) and preserve rodent control availability. Additionally, the NWRC patented a new bird repellent for protecting crops from an Agency/private sector partnership. Finally, in FY 2015, the NWRC developed, and EPA registered, a wildlife reproductive inhibitor that NWRC licensed for production and sale by a non-governmental organization.

Selected Examples of Recent Progress – Regulatory Enforcement:

1. Animal and Plant Health Regulatory Enforcement

Animal and Plant Health Regulatory Enforcement (APHRE) provides investigative and enforcement support to the Agency's four regulatory programs and Agricultural Quarantine Inspection (AQI) activities carried out through the Department of Homeland Security, Customs and Border Protection. APHRE investigates alleged violations of Federal laws under its jurisdiction and pursues appropriate enforcement actions through administrative, civil, or criminal procedures.

In FY 2015, APHRE issued 801 Official Warnings; 431 pre-litigation settlements resulting in the collection of $619,117 in stipulated penalties, and obtained administrative orders assessing $78,550 in civil penalties. Highlights from each APHIS program are described below.

To support animal health, APHRE initiated 160 cases; issued 40 Official Warnings; and issued 2 pre-litigation settlements, resulting in the collection of $5,500 in stipulated penalties against persons for violations of laws aimed at protecting animal health and American agriculture. APHRE negotiated an administrative consent decision for a violation of the Animal Health Protection Act relating to the interstate movement of swine, which resulted in the assessment of a $3,300 civil penalty. APHRE also worked to prevent and deter the entry of Highly Pathogenic Avian Influenza (HPAI), by initiating eight cases involving avian health issues. APHRE also concluded a fact finding investigation that resulted in the seizure of two illegally imported birds and the issuance of an administrative decision and order that assessed a $1,100 penalty against the importer for failure to obtain proper veterinary certificates for the birds moving from Mexico into the United States and failure to present the birds for inspection at an appropriate port of entry. In support of APHIS emergency response to the detection of HPAI in 2015, 40 percent of APHRE employees (nearly 65 employees) volunteered for deployment opportunities.

To support plant health, APHRE initiated 57 cases; issued 18 Official Warnings; issued 24 pre-litigation settlements, resulting in the collection of $107,375 in stipulated penalties; and obtained administrative orders assessing $40,750 in civil penalties for alleged violations of laws aimed at protecting domestic plant health and American agriculture. With respect to administrative orders, APHRE obtained its first administrative consent decision and order to resolve alleged violations of Federal domestic quarantine regulations involving the *P. ramorum* program. Following an investigation conducted by APHRE, the U.S. Department of Justice obtained a criminal conviction for fraudulent use of the International Plant Protection Convention, and International Standards for Phytosanitary Measures marks on wood packaging materials, resulting in a $100,000 penalty, the highest penalty APHRE has received to date involving wood packaging materials.

To support AQI activities, APHRE initiated 1,181 cases; issued 59 Official Warnings; and issued 375 pre-litigation settlements, resulting in the collection of $278,330 in stipulated penalties. APHRE obtained two significant pre-litigation settlement agreements involving the alleged failure to safeguard regulated garbage, involving a total of over 43 individual alleged violations. APHRE also investigated and obtained settlement agreements involving the alleged release of plant and animal products on agriculture hold by three express carriers.

APHRE also supported animal welfare and horse protection. With respect to alleged violations of the Animal Welfare Act (AWA), APHRE initiated 290 cases; issued 181 Official Warnings; issued 28 pre-litigation settlements,

resulting in the collection of $145,212 in stipulated penalties; and obtained administrative orders assessing $23,500 in civil penalties. APHRE negotiated several strong administrative consent decisions under the AWA. These decisions include former random source "B" dealers, who agreed to revocation of their license to resolve allegations regarding how they obtained and handled dogs, a former exhibitor who agreed to revocation of his license and a $50,000 civil penalty to resolve allegations of failure to provide proper care for his animals, an exhibitor who agreed to a $7,500 penalty and a one-month license suspension to resolve allegations of failure to properly care for and handle animals, and an exhibitor who agreed to a $16,000 penalty to resolve allegations regarding animal handling and care. APHIS also filed 36 administrative complaints alleging violations of the AWA, most of which are still pending. Additionally, APHRE issued strong pre-litigation settlements, including one for $12,825 against a carrier that subcontracted the transport of a shipment of ferrets to an unregistered carrier that, in turn, subcontracted the transport multiple times, which ultimately resulted in the death of 27 ferrets during the transport. Another example includes a settlement for $31,775 for a research facility that failed to administer adequate anesthesia prior to a procedure and failed to have adequate oversight for its animal care and use.

With respect to alleged violations of the Horse Protection Act (HPA), APHRE initiated 233 cases; issued 503 Official Warnings; and obtained 16 administrative orders assessing $9,900 in civil penalties and disqualifying 17 individuals from participating in activities regulated under the HPA. APHRE issued one pre-litigation settlement agreement, resulting in the collection of $1,500 in stipulated penalties against an individual for a violation of the HPA. In regard to administrative orders, APHIS obtained two decisions and orders, that an Administrative Law Judge issued that found, that a horse trainer committed two violations of the HPA, resulting in assessment of a $4,400 civil penalty and a two-year disqualification from showing or entering any horse or otherwise participating in any horse show, exhibition, or sale. APHIS also negotiated many administrative consent decisions under the HPA, including one consent decision in which an individual agreed to a four-year disqualification as well as the transfer in ownership and possession of two horses exposed to violations of the HPA. Collectively, the administrative consent decisions resulted in the disqualification of approximately 15 individuals from showing or entering horses or otherwise participating in any horse show, exhibition, or sale, and the assessment of $9,900 in civil penalties.

To support biotechnology, APHRE investigated two high-profile incidents involving the detection of genetically engineered organisms. Following one investigation, APHRE collected $81,200 in stipulated penalties to resolve alleged violations involving the failure to apply appropriate safeguards to prevent escape and dissemination of regulated articles in eight locations in Minnesota that were the site of field trials involving Dicamba-resistant soybeans under an APHIS-issued permit.

2. Biotechnology Regulatory Services

APHIS balances a regulatory system that safeguards agriculture, while fostering innovative research and development. APHIS has a timely and predictable regulatory process that uses high quality, thorough, science-based reviews. Under the authority of the Plant Protection Act (PPA), APHIS oversees genetically engineered (GE) organisms that might pose a risk to plant health. APHIS biotechnology regulations implement the Plant Pest provision of the PPA and, under these regulations, may put specific requirements on field testing, importation, and interstate movement of regulated GE organisms to protect American agriculture and other plants from the risk of damage from plant pests. In FY 2015, APHIS withdrew the 2008 proposed amendments to the regulations, which APHIS administers, to regulate the introduction of GE organisms. APHIS renewed its efforts to publish a new proposed rule by engaging stakeholders with a series of webinars to give the public a chance to provide input. APHIS opened a public comment period on the new stakeholder engagement through a *Federal Register* notice on April 28, 2015. APHIS closed the public comment period on June 22, 2015, and received approximately 220,000 comments from the webinars and in response to the public notice. The Agency is continuing to reach out to stakeholders as it looks forward to updating their biotechnology regulations.

APHIS ensures that developers, growers, and others take the important steps to prevent unauthorized releases of GE organisms. Depending on the characteristics of the GE organism, the developer files an application in the form of either a permit or a notification, referred to as an authorization. A permit is more restrictive than a notification, and is generally issued for GE organisms that may pose a greater risk. A notification is a streamlined authorization for GE organisms that are less likely to pose risk. In FY 2015, APHIS authorized 1,500 notifications and permits throughout the United States.

When reviewing notifications and permit applications, APHIS requires that developers are in compliance, meaning they meet performance standards for notifications or specific requirements for permits to ensure the GE organisms are confined and do not persist in the environment. To ensure that GE organisms meet standards outlined in the permit or notification, APHIS inspects fields, equipment, and other associated facilities. In FY 2015, APHIS and the States (authorized by APHIS) conducted more than 688 site inspections; 39 of which were unannounced inspections. Approximately 96 percent of those inspected were in compliance with APHIS biotechnology regulations.

In the wake of several compliance incidents, including the wheat incidents in Oregon and Montana, APHIS improved regulatory compliance and inspection functions. APHIS implemented a new compliance database that enables more in-depth analysis of compliance incidents and developed standardized procedures for compliance incident management to ensure consistency and effective oversight. In addition, APHIS undertook a Signature Process Improvement (SPI), which USDA identified as a priority initiative, to improve the processing, review, and tracking of reports submitted by developers. This effort resulted in more timely response to issues that developers identified and more effective identification of field trial inspection sites. APHIS also conducted an evaluation of the Biotechnology Quality Management System program and gathered feedback from current participants on how to enhance compliance among those developers in greatest need of assistance.

When biotechnology developers can provide scientific information that demonstrates that the organism is not a risk as a plant pest, they can request that APHIS remove a GE organism from regulation. For example, they may request deregulation if they want to commercialize and grow the GE organism without oversight. Before APHIS makes a regulatory decision, we conduct scientific reviews and gather data to determine if a new GE organism poses a risk to plant health. APHIS reviews of the GE organism include analyzing both current, publicly available scientific information and the technical data provided by the applicant. When considering this request, APHIS completes an scientific plant pest risk assessment, as well as an environmental review required by the National Environmental Policy Act. If APHIS determines that a GE organism does not pose a plant pest risk, the Agency makes a determination of nonregulated status, and the organism can be planted and moved without oversight.

APHIS enabled more rapid and predictable availability of biotechnology products to farmers, ultimately providing technologies to growers sooner and more choices for consumers. APHIS identified and implemented solutions to significantly improve the speed and predictability of the petition process without affecting the quality of decision-making. In FY 2015, using an improved petition process, APHIS reduced the time to prepare a plant pest risk assessment from three to five years to 1.8 years (on average), while simultaneously almost eliminating the backlog of petitions. APHIS completed eight petitions, surpassing its goal of five determinations of nonregulated status. These determinations of nonregulated status include a non-browning apple, two varieties of cotton, two varieties of soybeans, reduced lignin alfalfa, a low-acrylamide potato that has a reduced tendency for black spot bruising, and a blight resistant potato. In FY 2015, APHIS reached a cumulative total of 117 determinations. APHIS continues to provide the public with opportunities to review both the petition request and the scientific assessments of the GE organisms in the *Federal Register* as well as holding an annual stakeholder meeting and many virtual meetings.

In addition to the petition process, APHIS' "Am I Regulated?" (AIR) process considers whether an organism is a regulated article under current APHIS biotechnology regulations. If developers are unsure whether their GE organism meets the definition of a regulated article, they can send a letter to APHIS. The letter must include scientific data, the technology used, and other information about the GE organism. APHIS will evaluate the description of the product and inform the developer if the GE organism is or is not regulated by APHIS under the biotechnology regulations. APHIS publishes their responses to AIR letters on its website. In FY 2015, APHIS responded to 12 AIR inquiries.

APHIS works with international partners to enhance the coordination of regulatory approaches for the safe use of GE organisms and provides capacity building assistance to developing countries for the regulation of GE crops. These activities promote U.S. exports of GE products by ensuring that trading partners understand and accept the U.S. system for regulating GE crops. For example, in FY 2015, APHIS worked closely with Mexico and Canada on technical and regulatory biotechnology issues in bilateral, regional, and multi-lateral international venues. APHIS also meets with foreign visitors who are interested in understanding how the United States regulates the safe use of

biotechnology-derived crops. These interactions include foreign visitors representing the press, politicians, government ministry officials, scientists, and consumer groups. In FY 2015, APHIS provided technical support to USDA's Foreign Agriculture Service, State, and other U.S. government agencies in outreach activities related to participation in the Meeting of the Parties to the Cartagena Protocol on Biosafety held in South Korea (currently 170 countries are Parties). This work is aimed at enhancing coordination of regulatory approaches and providing capacity building assistance for the regulation of GE crops.

Selected Examples of Recent Progress – Emergency Management:

1. Emergency Preparedness & Response

The Emergency Preparedness and Response (EPR) program improves APHIS' capability to prevent, prepare for, respond to, and recover from animal and plant health emergencies. These emergencies range from small-scale incidents to catastrophic events caused by various hazards. The EPR program develops strategies and policies for incident management and response coordination, and maintains an animal health emergency reserve corps of approximately 3,000 private veterinarians, animal health technicians, and veterinary students. In addition, the program ensures that APHIS' emergency management policies, strategies, and responses meet national and international standards.

The EPR program's goal is to respond to an animal health event within 24 hours from the time APHIS decides that it is appropriate for the Agency to be involved in an emergency response effort. The program develops and makes available to State animal health officials and industry partners guidance documents covering the major components of an animal health emergency response. These documents support greater national preparedness and enable swift and efficient local responses. The EPR program coordinates investigations and disseminates information about animal health emergencies. The program also participates in joint Federal, State, and local animal health and all-hazards test exercises to improve response plans and capabilities, and perform reviews after exercises or actual incidents. These reviews lead to corrective action plans that are used to update national guidance documents and help States enhance their response plans. In addition, the EPR program facilitates planning sessions with all major commodity groups to develop business continuity plans that would ensure the continuous movement of livestock products during an animal health emergency.

The EPR program also supports Emergency Support Function 11: Agriculture and Natural Resources (ESF#11) Coordinators in each Federal Emergency Management Agency (FEMA) region. Among other duties, these Coordinators work with State, Tribal, and local authorities and other Federal agencies to respond to agricultural health issues and support animal and agricultural emergency management. This program carries out functions outlined in the National Response Framework, which establishes how response efforts support State, Tribal, and local authorities during emergencies. In addition, APHIS provides technical support to FEMA for the care of pets and service animals during natural or man-made disasters. Further, in accordance with the *Public Health Security and Bioterrorism Preparedness Response Act of* 2002, this program regulates select agents or toxins that threaten animals, plants, or animal and plant products. The EPR program also supports the APHIS Emergency Qualifications System Dispatchers, who coordinate the delivery of emergency resources.

Preparedness, Partnerships & Planning

In FY 2015, APHIS developed and revised FEMA All-Hazard plans and catastrophic incident plans. In particular, APHIS worked with FEMA to complete the FEMA Region VII Food, Agriculture, and Veterinary Response Annex to the National Response Framework, and began work on the National Food and Agriculture Annex. The Agency also helped States with planning efforts as part of the U.S. Department of Homeland Security's (DHS) Regional Catastrophic Planning Initiative. Preparedness efforts such as these continue to grow more complex, with additional specialized FEMA procedures and systems. The Agency also worked with the ESF#11 primary agencies (USDA's Food and Nutrition Service, and Food Safety and Inspection Service; and the U.S. Department of the Interior) to develop an ESF#11 Strategic Plan. In response to findings and recommendations from the Government Accountability Office, FEMA began working with the ESF leaders to develop performance metrics for tracking preparedness and response activities.

In FY 2015, APHIS continued to develop public-private academic partnerships to advance foot-and-mouth disease (FMD) response strategies and capabilities, including the use of an FMD vaccine to control and eradicate an outbreak, and continued to develop public-private academic partnerships, such as Secure Food Supply Projects. In addition, APHIS produced response plans, National Animal Health Emergency Management System guidelines, ready reference guides, industry manuals, and standard operating procedures to help stakeholders improve their planning and response capabilities regarding animal health and foreign animal disease (FAD) incidents.

APHIS also initiated a cooperative agreement with the Association of Zoos and Aquariums to develop the Zoo and Aquariums All Hazards Preparedness, Response and Recovery Fusion Center to identify gaps in emergency planning, build capabilities, share information and situational awareness, and coordinate and support captive wildlife issues in emergencies. In addition, APHIS organized and facilitated a three day all-hazards catastrophic planning workshop in July 2015, for 35 representatives of Federal agencies and "whole community" governmental, non-governmental, and private sector stakeholders to generate an action plan for enhancing national capability to respond to catastrophic incidents. APHIS also helped develop training modules and provided instructors for the pilot session of the training at the Katrina Commemorative Animal Responder Boot Camp in August 2015. Further, the Agency supported Vibrant Response 2015 (Department of Defense/FEMA nuclear detonation exercise) and Southern Exposure 2015 (South Carolina nuclear power plant accident exercise), and provided input into the revision of the Nuclear and Radiological Incident Annex to the Federal Interagency Operational Plans for Response and Recovery.

Preparedness Training and Exercises

To prepare for animal health emergencies, APHIS finalized an *Emergency Preparedness and Response Training/Exercise Strategy and Plan* (TEP) in October 2014, for fiscal years 2015-2017. Comprehensive training and exercises provide vital practice before an actual animal disease incident occurs. The TEP is designed to enhance the preparedness of APHIS and its Federal, State, and tribal partners to respond to livestock and poultry health incidents and other hazards. At the beginning of each fiscal year, APHIS hosts a training and exercise workshop with its partners to update the TEP by translating the Agency's preparedness strategic goals and priorities into specific activities, and to coordinate training and exercise activities. In FY 2015, there were 53 events (40 trainings and 13 exercises) aligned with APHIS' training and exercise priorities and objectives. This represents an increase of 15 events from FY 2014, resulting in enhanced response capabilities of additional personnel.

In FY 2015, ESF #11 Coordinators in the ten FEMA regions and at the national level participated in the planning and execution of FEMA and State exercises ranging from discussion-based table-top exercises to drills providing cross-functional coordination and assistance. Specific exercises involving significant participation included the Oklahoma tornado Animal and Agriculture tabletop exercise, Southern California Earthquake Capstone Functional Exercise, Southern Exposure 2015 Nuclear Power Plant release response exercise, and the Arizona Radiological Response Recovery exercise. Other exercises included FEMA regional plus State exercises, and the DHS Food and Agriculture Veterinary Response Exercise planning series and exercises. ESF #11 Coordinators also held National Level Training in April 2015, with all partner and support agencies.

In addition, APHIS funded a Multi-jurisdictional Animal Resource Coordination Exercise. Twenty-four States participated in the virtual exercise to test their ability to identify animal resource needs; request resources from non-governmental organizations, States, and the Federal government; and respond to an Emergency Management Assistance Compact request from another State. The exercise demonstrated that continued animal resource coordination exercises are needed to improve awareness of available response resources, enhance communications, and develop plans and protocols to facilitate effective and efficient delivery of "surge" response resources during disasters. A significant outcome of the exercise was the validation of the animal resource typing developed by the Southern Agriculture and Animal Disaster Response Alliance as a tool for facilitating the movement of animal resources between States and for requesting resources from non-governmental organizations. In October 2015, APHIS also planned and executed a virtual tabletop exercise with three States and five Animal Welfare Act-regulated facilities to test their FY2015-developed Concept of Operations for response to highly pathogenic avian influenza at zoological facilities.

Response Efforts and FAD Investigations

In FY 2015, the highly pathogenic avian influenza (HPAI) virus spread rapidly and significantly impacted the poultry industry. When the outbreak began, the EPR program aided in the Agency's preparedness and initial response effort by developing and maintaining the FAD Preparedness and Response suite of guidance documents, including the HPAI response plan. In addition, the program's experience developing a voluntary reserve corps benefitted the emergency response effort when APHIS deployed members of this corps for the first time. Emergency outbreaks such as this demonstrate the critical need for this preparedness and response program.

In FY 2015, FEMA activated ESF #11 Coordinators for five responses: 1) Tropical Storm Anna, to support pre-declaration disaster operations (Hawaii – October 2014); 2) Tropical Storm Seven - Typhoon Dolphin, to support pre-declaration disaster operations (Guam – May 2015); 3) Severe storms/flooding, to assist with incident management (Texas – May 2015); 4) Typhoon Soudelor, where coordinators were deployed to the FEMA Initial Operating Facility in Saipan (Saipan – August 2015); and 5) Wildfires, to support post-declaration disaster operations (Washington – August 2015). Also in FY 2015, APHIS' EQS Dispatchers dispatched 1,444 responders to 19 APHIS incidents or events. Three full-time and temporary dispatchers provided support for the HPAI response. The dispatchers orchestrated the mobilization of resources, tracked resource mobilization, and managed position certifications, status, and logistical information regarding deployments. APHIS' Emergency Operations Centers in North Carolina and Colorado were activated as expanded Dispatch Centers, manned by the existing Emergency Qualifications System Dispatchers. The Dispatchers worked with the Incident Coordination Group, and program contacts, to identify personnel and mobilize resources within the timeframes requested by the Incident Commanders.

APHIS and State animal health officials investigate suspect cases presented for FADs or emerging diseases. In FY 2015, there were 462 independent FAD investigations, compared to 286 in FY 2014. In addition, there were 527 premises affected by vesicular stomatitis virus, and 232 affected by HPAI. Also in FY 2015, 1,124 premises were confirmed positive for swine enteric coronavirus diseases.

Safeguarding of Select Agents

The *Public Health Security and Bioterrorism Preparedness Response Act of 2002* requires individuals or entities possessing, using, or transferring select agents or toxins affecting animal health, plant health, and animal and plant products to register them with APHIS or the Centers for Disease Control and Prevention (CDC). In FY 2015, 39 entities registered with APHIS' Agriculture Select Agent Services (AgSAS), and 50 entities registered with CDC also handle select agents covered under APHIS authority. AgSAS personnel received and processed 241 amendments and renewals of registration certificates. Of these, 220 were Administrative Amendments (personnel addition or removal, and role changes) and 21 were technical amendments, which required on-site inspections. Approximately 80 percent of the 241 amendments were fully completed and closed in FY 2015. In addition, AgSAS personnel processed and approved 585 Security Risk Assessments (SRAs), which the Federal Bureau of Investigation conducts. Of the 585 approvals, 356 were new SRAs, and the remaining 229 SRAs involved renewal of personnel at registered entities who were previously approved to work with select agents. AgSAS personnel also processed 105 transfer requests for select agents. In addition, AgSAS conducted 74 inspections as follows: 22 renewal inspections, 40 unannounced compliance inspections, 1 inspection for a new entity, 9 inspections involving amendments, and 2 inspections of organisms or vectors at the request of APHIS district offices. APHIS issued corrective letters for minor violations and more serious noncompliance issues found during the inspections. APHIS also conducted emergency inspections for three high profile incidents involving the potential release of select agents. The Agency conducted joint inspections with CDC, Department of Homeland Security, and the Department of Defense, where applicable.

Biosecurity

APHIS' exotic plant pest information system, PestLens, provides biological information about exotic plant pests, such as distribution, host range, spread history, and control measures. PestLens reports newly emerging pest information through weekly notifications. The articles are stored in the PestLens database, providing a framework

for subject matter experts to make safeguarding decisions. Both APHIS and DHS' Customs and Border Protection use PestLens. In FY 2015, PestLens generated 50 weekly notifications that contained 170 unique pest articles.

APHIS is a member of the Federal interagency biosurveillance community, and participates on the Biosurveillance Indications and Warning Analytic Community steering committee to promote greater understanding of agricultural threats across the Federal interagency, particularly providing context and characterization for threats that may also impact human health, and/or the U.S. economy. Through this interaction, APHIS leverages tools employed by all partners to augment other APHIS global biosurveillance initiatives.

SAFE TRADE AND INTERNATIONAL TECHNICAL ASSISTANCE

Current Activities: APHIS monitors plant and animal health throughout the world and uses the information to set effective agricultural import policies to prevent the introduction of foreign plant and animal pests and diseases. APHIS and the Department of Homeland Security cooperate to ensure that these policies are enforced at U.S. ports of entry. APHIS also develops and conducts pre-clearance programs to ensure that foreign agricultural products destined for the United States do not present a risk to U.S. agriculture. The Agency engages in cooperative programs to control pests of imminent concern to the United States and to strengthen foreign plant protection and quarantine organizations. APHIS assists U.S. exporters and the Foreign Agricultural Service in revising foreign plant and animal import regulations to encourage and increase U.S. agricultural exports. The Agency also manages and resolves sanitary (animal) and phytosanitary (plant) trade barriers.

APHIS' role is to negotiate animal and plant health certification requirements, assist U.S. exporters in meeting foreign regulatory requirements, ensure requirements are proportional to risk without being excessively restrictive, and provide any necessary technical information to support the safety of U.S. agricultural products destined for foreign markets.

Selected Examples of Recent Progress in Safe Trade:

1. Agriculture Import/Export

APHIS works with other Federal agencies, States, foreign governments, industry, and academia to protect U.S. agriculture while facilitating the safe trade of animals and animal products. APHIS' animal health experts ensure that U.S. import requirements safeguard U.S. livestock health and negotiate requirements for the export of U.S. animals and animal products worldwide. These requirements are based on compliance with international standards, sound scientific principles, and fair trading practices for animals and animal products. Moreover, APHIS sets quarantine, testing, and other requirements under which animals and animal products can be imported or exported. These requirements help ensure that global markets can be accessed, expanded, or maintained with little or no risk to U.S. animal production and human health.

APHIS also conducts activities related to the 2008 Farm Bill amendments to the Lacey Act, which prohibit the importation of any plant, with limited exceptions, that are taken or traded in violation of domestic or international laws. The Act requires a declaration for imported shipments of most plants or plant products. A 2012 study by the United Nations Environmental Programme estimated the value of illegal logging, including processing, to be between $30 to $100 billion dollars, or 10 to 30 percent of the global wood trade. The Lacey Act amendments are designed to help combat this illegal logging by encouraging importers to research their supply chains and be aware of the laws governing products they purchase in other countries. APHIS' role is to issue regulations, provide guidance to importers regarding the declaration, perform compliance checks, provide enforcement agencies with declaration information to assist their investigations, and house documents.

Imports

To facilitate imports, APHIS evaluates the animal health status of regions that wish to export animals and/or animal products to the United States. This evaluation process minimizes the risk of introducing animal diseases through importation. In FY 2015, APHIS completed several evaluations and published them in the *Federal Register*, which

included finalizing the regulations for the import of fresh/frozen beef under certain conditions from 14 states in Brazil and northern Argentina.

APHIS' science-based review is consistent with international trade requirements. In addition to detailed risk analyses of the regions, APHIS conducted five site visits in Brazil and Northern Argentina to confirm that the regions' surveillance, prevention, and control measures are sufficient to minimize the likelihood of an introduction of foot-and-mouth disease (FMD) into the United States. APHIS recognized the animal health status of Croatia as free of FMD, rinderpest, and swine vesicular disease, as well as low risk for classical swine fever (CSF). In addition, APHIS added areas of the European Union to the list of regions affected with African swine fever, restricting imports from those regions.

APHIS addressed import issues related to live animals and animal products arising at the ports, especially in regards to facilitating cattle imports from Mexico. APHIS finalized a rule to recognize the State of Sonora in Mexico as free of fever ticks, and establish an exemption from certain tick treatment requirements. This action removed restrictions on the importation of cattle, and other ruminants, from Sonora and reduced the costs associated with tick dipping for those that import or export ruminants. APHIS is working to improve traceability of imported animals by implementing use of identification scanners at the border that will upload ear tag information into our traceability databases. In FY 2015, APHIS issued 17,043 import permits for live animals, animal products, organisms, and vectors. These include new permits, renewals, and amendments. APHIS processed an additional 294 permits for animal products that were placed on hold at the port of entry.

APHIS continues to ensure that import regulations are effective and science-based. In response to the Highly Pathogenic Avian Influenza (HPAI) outbreak, and the resultant U.S. egg shortage, APHIS finalized and approved, in conjunction with the Agricultural Marketing Service, certificates for the importation of shell eggs from the Netherlands, Greece, Italy, Latvia, Spain, France, Sweden, Poland, Portugal, and Argentina. Additionally, the Agency established a process to allow additional egg import s into the United States for breaking and pasteurization at APHIS approved establishments.

Exports

In FY 2014, the value of new or maintained export markets for animals and animal products was approximately $2.0 billion (Foreign Agricultural Service). To open, re-open, and maintain U.S. access to worldwide export markets, APHIS negotiates science based conditions with trading partners for various commodities that protect their country while also facilitating trade. In FY 2015, APHIS negotiated or re-negotiated 154 export protocols for animal products (34 new markets, 8 expanded markets, and 112 retained markets), and 106 export protocols for live animals (34 new or reopened markets, 44 retained markets, and 28 expanded markets). Also, in FY 2015, APHIS opened new markets for cattle to Bolivia, Ecuador, Pakistan, Guatemala, as well as slaughter cattle to Mexico. APHIS conducted voluntary inspections of more than 500 U.S. manufacturing facilities to maintain, expand, or open export markets in many countries, including the European Union, Australia, Mexico, China, and others. APHIS participated in industry stakeholder meetings, provided technical support for World Trade Organization cases, and attended bilateral trade meetings with multiple countries. APHIS also developed information packages and questionnaire responses from various countries to maintain, expand, or open export markets. In FY 2015, the World Organisation for Animal Health officially recognized the United States as free of CSF without vaccination. This recognition further helps U.S. negotiators promote the export of our swine commodities.

Several countries restrict U.S. exports of poultry, or poultry products, as a result of non-trade tariff barriers. This includes sanitary and phytosanitary issues that APHIS addresses, as well as food safety issues that the Food Safety and Inspection Service addresses. Concerns over avian influenza (AI) and exotic newcastle disease have caused some countries to refuse U.S. imports of fresh, frozen, and chilled poultry. In FY 2015, the HPAI outbreak significantly impacted the U.S. exports of poultry and poultry products. APHIS remains actively engaged with many countries to encourage removal of these restrictions as the HPAI outbreak is resolved. Over the course of the outbreak, 18 countries imposed restrictions on poultry and poultry products from the entire United States, 38 countries recognized the control measures taken during the outbreak and limited their restrictions to affected zones or States, and 100 other countries had no known restrictions established. APHIS' previous work with many countries regarding AI helped mitigate the impacts of the HPAI trade effects.

APHIS increased the number of certificates issued electronically by expanding the system's capabilities. APHIS added digital signature capabilities and is working on bilateral pilot projects with Canada and Mexico to allow exports with digitally issued and signed certificates.

Lacey Act

Approximately 90 percent of Lacey Act declarations are currently filed using the Department of Homeland Security's Customs and Border Protection's (CBP) existing Automated Commercial System (ACS). In FY 2015, APHIS worked with CBP, as well as the trade community, to complete the development of fundamental business, technical, and software processes for electronically filing Lacey Act declaration information using the new International Trade Data System's Automated Commercial Environment (ACE). This activity is part of a government-wide effort to streamline export and import processes for U.S. businesses. APHIS published a notice in the *Federal Register* on August 6, 2015, to solicit volunteer filers to test the new ACE system. Official pilot testing began in October 2015. By February 28, 2016, CBP will require current ACS users to electronically file through ACE. In FY 2015, APHIS received more than 465,000 Lacey Act declarations, including those received through CBP, paper declarations, and APHIS' electronic filing system. Also, in FY 2015, APHIS phased in 20 additional commodities that will require import declarations, including wooden articles such as casks, barrels, and bentwood furniture. Additionally, APHIS continued to work with its counterparts in other countries to establish cooperative relationships regarding ways to combat illegal logging and other activities the Lacey Act is designed to reduce.

2. Overseas Technical & Trade Operations

The Overseas Technical and Trade Operations (OTTO) program is a vital part of the U.S. Government's efforts to support agriculture and expand U.S. exports. The OTTO program prevents foreign agricultural pest and disease threats to the United States, eliminates unfair trade barriers, and establishes science-based international standards for trade, as well as engages with other Federal agencies, foreign governments, and international organizations dedicated to the same goals. Specifically, APHIS ensures the free flow of agricultural trade and works to support a healthy and profitable agricultural industry and the American producer. Specifically, we use our technical expertise in animal and plant health to resolve sanitary and phytosanitary (SPS) issues that affect opportunities for U.S. producers and allow U.S. companies to be competitive in international trade. The Agency also collaborates with USDA's Foreign Agricultural Service, the Office of the U.S. Trade Representative, and other technical agencies to provide a coordinated effort on trade issues that affect U.S. producers.

To strengthen APHIS' ability to quickly respond to trade issues, the Agency has scientists, including veterinarians and entomologists, stationed throughout the world to assure collaboration on animal and plant health issues with their foreign counterparts in support of U.S. exports. APHIS has staff in more than 30 countries, including offices in Belgium, Brazil, China, Colombia, Egypt, India, Japan, Korea, Mexico, and Taiwan. The Agency is critical in fostering the free flow of trade by working to remove unjustified SPS barriers impeding U.S. exports. SPS barriers are those involving both plant health and animal health. In FY 2015, APHIS efforts to eliminate trade barriers and to ensure that trade decisions are based on science resulted in 171 resolved SPS issues worth $2.5 billion for U.S. agricultural products. This figure includes opening new markets of cattle to Chile and Peru worth $20 million, retaining the poultry market to the European Union worth $111 million, and expanding the apple market to China worth $20 million per year. An example of APHIS' success in reducing SPS barriers to trade is the effort to eliminate restrictions on beef, animals, and other products due to three cases of bovine spongiform encephalopathy (BSE) or "mad cow" disease. In 2013, the World Organisation for Animal Health (OIE) recognized the United States as negligible risk for transmitting BSE. However, some countries still maintained restrictions on U.S. beef, and APHIS continued to work with those countries. As a result, 14 additional countries removed restrictions to U.S. beef and beef products resulting in an additional $180 million in potential exports in FY 2015.

Even for markets that are open to U.S. agricultural products, APHIS must continually addresses issues to keep trade flowing smoothly. APHIS works with foreign counterparts to clarify or streamline certification requirements making it easier and less costly for U.S. exporters to move their products overseas. When shipments are held up at foreign ports, APHIS negotiates the overseas process to get products moving again. The exchange of technical and scientific information can often convince an importing country that the risk associated with imported products is less

than had been perceived or can be safely addressed through risk mitigation measures. APHIS successfully secured the release of 293 shipments worth $25 million in FY 2015 of these detained shipments ranging from apples to Taiwan to eggs to the Dominican Republic.

In addressing SPS barriers to trade, APHIS uses its strong scientific base and team of technical experts based in the United States and abroad to advocate on behalf of U.S. agriculture. These scientists build relationships with counterparts and use scientific principles to make the case for American agricultural exports and explain to foreign officials why U.S. commodities are safe to import. These conversations take place in ongoing, technical bilateral meetings and in multilateral fora. APHIS supports U.S. Government efforts to take full advantage of existing and proposed free-trade agreements by discussing ongoing restrictions based on animal and plant health with countries that seek to reduce tariffs and other impediments to trade.

Building relationships in emerging markets often involves field visits, or training of foreign government officials to build their capacity to put in place scientifically sound SPS requirements. In FY 2015, APHIS informed 577 foreign officials about the U.S. regulatory process by hosting them during 69 visits, and completed 135 requests received for subject matter expertise, trainings, and other outreach-related activities. For example, in FY 2015, APHIS provided training in collaboration with the OIE and the Food and Agricultural Organization of the United Nations to a group of veterinarians from Chile, Colombia, and Mexico on how provide emergency response to an outbreak of highly pathogenic avian influenza or foot-and-mouth disease. APHIS experts also trained 25 plant health regulators from Cameroon, Chad, the Democratic Republic of Congo, and Gabon in strengthening the capacity of phytosanitary inspectors in risk-based inspection and certification of imports and exports of plants and plant products.

The key to a successful trading environment is ensuring that our agricultural exports can compete in the world market, which means ensuring that the same rules apply to countries around the world. APHIS emphasizes the use of scientific principles as a basis for international trade decisions and works with international standard setting bodies such as the OIE and the International Plant Protection Convention (IPPC) to encourage other countries to follow this model. By gaining support for scientific-decision making internationally and following international standards when considering what can be imported into the United States, APHIS increases U.S. agricultural exports. For example, in FY 2015 APHIS was able to encourage many key trading partners to adopt and apply the OIE's HPAI regionalization and zoning guidelines in order to retain and recover poultry market access. Also in FY 2015, the adoption of new IPPC standards included modifications to pest-free areas' fruit management procedures and the addition of several other fruit species to the cold treatment standards for fruit flies.

In FY 2015, APHIS began comprehensive succession planning of its workforce, with special emphasis on its Foreign Service cadre. The recruitment and developmental process emphasizes applicants' plant and animal science backgrounds, focusing on increasing new officers' knowledge of all APHIS mission areas, as well as increasing cooperation with other international partners, such as USDA's Foreign Agricultural Service. The process further develops their diplomatic, cross-cultural, and leadership skills. In addition, APHIS developed the process to be performed biannually, to evaluate the location of its overseas offices, and to determine the most effective way to support the Agency's mission to support Sanitary and Phytosanitary (SPS) issues. These efforts will strengthen APHIS' ability to address SPS and other issues overseas in traditional and emerging markets, maintaining a more consistent overseas presence.

Agricultural trade is essential for the U.S. export market, and may be subject to costly disruptions from animal and plant health barriers. Technical trade, capacity building, and regulatory activities support export opportunities to U.S. producers while providing fruit, vegetables, and animal protein sources to international markets. APHIS will continue doing its part to broaden international trade opportunities for America's animal and plant products while ensuring they are protected from pests and diseases at home.

ANIMAL WELFARE

Current Activities: The Agency conducts regulatory activities to ensure the humane care and treatment of certain animals and horses as required by the Animal Welfare Act of 1966 as amended (7 U.S.C. 2131-2159), and the Horse Protection Act (HPA) of 1970 as amended (15 U.S.C. 1821-1831). These activities include inspection of certain establishments that handle animals intended for research, exhibition, wholesale pet trade, or transported in commerce. APHIS places primary emphasis on inspection of facilities, records, investigation of complaints, inspection of problem facilities, and training of inspectors. APHIS also administers the HPA, as amended, which prohibits the showing, sale, auction, exhibition, or transport of sore horses. Program personnel attend and monitor certain horse shows to prevent this cruel act of soring, from occurring.

Selected Examples of Recent Progress in Animal Welfare:

1. Animal Welfare

APHIS' Animal Welfare (AW) Program has the unique Federal role of ensuring the humane care and treatment of animals covered by the Animal Welfare Act (AWA) through inspection, education, and enforcement efforts. APHIS regulates and protects more than two million animals used in research, exhibition, and the pet trade as well as those transported in commerce. Overall, in FY 2015, the program oversaw more than 7,378 licensees and registrants associated with 10,399 facilities.

Licensing Activities

The AWA requires all facilities that use animals regulated under the Act to maintain a license or registration with APHIS. The AW program works closely with potential licensees to ensure that applicants understand the requirements of the AWA regulations and standards and will be able to maintain compliance after obtaining a license from the Agency. The program tailors pre-licensing activities to the individual licensee's needs, including developing individualized materials and presentations that focus on specific aspects or issues at each facility. The Agency conducts up to three visits to a facility prior to issuing a license. In FY 2015, APHIS inspectors licensed 773 new entities and conducted 952 pre-licensing inspections. The Agency determined that 95 percent of these newly licensed facilities were in substantial compliance at their first unannounced inspection.

After issuing a license, APHIS inspectors perform unannounced inspections to verify continued compliance. During inspections, Agency officials examine and inspect all areas of animal care and treatment covered under the AWA. The Agency reviews the premises, facilities, husbandry practices, program of veterinary care, records, and animal handling procedures. In FY 2015, APHIS conducted 10,505 animal welfare inspections, placing an emphasis on the inspection of licensed facilities with documented non-compliance.

The AW program continuously evaluates the needs of the regulated community and develops new opportunities to increase compliance with the AWA and improve the overall health and well-being of those regulated entities. Beginning in FY 2012, and continuing in FY 2015, the Agency established the Comprehensive Compliance Analysis and Planning Program. The Agency developed the program to assist licensees who have a desire to comply with the AWA, but have various issues hindering their ability to maintain compliance. APHIS conducts an in-depth, root cause analysis of a struggling AWA facility, works with the licensee to develop a tailored plan to address the non-compliances, and provides supplemental education and training to employees. After completing the program, the Agency evaluates improved compliance rates at routine unannounced inspections. Of the 51 participating facilities to date, the Agency helped increase compliance rates by 54 percent at the third routine inspection. The AW program will continue to evaluate the effectiveness of the program in FY 2016.

Enforcement Activities

In FY 2015, approximately 95 percent of all regulated entities were in substantial compliance with the AWA. However, when APHIS inspectors discover conditions or records that are noncompliant with the regulations, the Agency establishes a deadline for corrective action and increases frequency of unannounced inspections to check if

the facility made the necessary modifications. Continued noncompliance warrants an investigation that can result in civil penalties ranging from monetary penalties to suspension or revocation of the facility's license.

With respect to alleged violations of the AWA, APHIS initiated 290 cases; issued 181 Official Warnings; issued 28 pre-litigation settlements, resulting in the collection of $145,212 in stipulated penalties; and obtained administrative orders assessing $23,500 in civil penalties. The Agency negotiated several administrative consent decisions under the AWA, including: a former random source "B" dealer who agreed to revocation of their license to resolve allegations regarding how they obtained and handled dogs; an exhibitor who agreed to revocation of his license and a $50,000 civil penalty, held in abeyance, to resolve allegations that he failed to provide proper care for his animals; an exhibitor who agreed to a $7,500 penalty and a one-month license suspension to resolve allegations of failure to properly care for and handle animals; and an exhibitor who agreed to a $16,000 penalty to resolve allegations regarding animal handling and care.

APHIS also filed 36 administrative complaints alleging violations of the AWA, most of which remain pending. Additionally, APHIS' enforcement branch issued pre-litigation settlements, including one for $12,825 against a carrier that subcontracted the transport of a shipment of ferrets to an unregistered carrier that, in turn, subcontracted the transport resulting in the death of 27 animals. Finally, APHIS issued a pre-litigation settlement for $31,775 for a research facility that failed to administer adequate anesthesia prior to a procedure and failed to have adequate oversight over the animals care and use.

Outreach/Stakeholder Activities

APHIS' Center for Animal Welfare serves as a national resource for policy development and analysis, supports compliance efforts through non-regulatory methods such as education, training, and outreach to stakeholders to convey critical and current animal welfare information, and reviews and promotes science and technology related to improving the welfare of animals. The Center maintains a team of animal welfare specialists with expertise ranging in exotic animals, kennels, biophysics, and training. The Center leverages its partnership with universities, industry, and animal interest groups to communicate information. The following are examples of efforts during FY 2015.

APHIS continued to modify web-based training modules and developed new modules for the pre-licensing program, marketed these modules to industry leaders and others stakeholders, and released the modules to the public via the Iowa State University and APHIS websites. This approach provides additional avenues for stakeholders to receive information. The new modules cover various aspects of the animal welfare regulations with the two-pronged goal of helping licensees understand the regulations as they pertain to them and improving compliance. The modules can be viewed at http://www.cfsph.iastate.edu/Education-Training/regulatory-compliance-for-commercial-dog-breeders.php.

In July 2015, APHIS held a USDA Dog Breeder Leader Forum at the Center for Animal Welfare in Kansas City, Missouri. The forum focused on identifying and discussing the scientific gaps facing the dog breeding industry, as well as the scientific and educational needs for the commercial dog breeding industry. More than 30 attendees representing 14 States were present. The Agency will use the information collected from the forum to develop outreach materials and future research reviews. During the meeting, the Agency distributed copies of the recently developed Dog Breeders Resource Guide. This document was developed as a comprehensive, practical resource of information related for commercial dog breeders regulated under the AWA. The Agency will make the guide available electronically in FY 2016.

The Center maintains a team of animal welfare specialists to conduct additional visits to regulated facilities with specialized species. For example, the Agency visited 10 facilities to evaluate the safety of big cat enclosures. These specialists also review and publish information related to animal welfare best practices. In FY 2015, the Center published several documents that provided information related to improving the health and diet needs of big cats species, safe use of commercial vehicles for animal transport in emergency evacuation situations, and the ability of exotic animals, such as African elephants and giraffes, to acclimate to cold temperatures experienced in captivity.

Regulatory Changes

The Agency continued to conduct outreach, investigate complaints, and issue necessary licenses for those entities impacted by the 2014 final rule that revised the definition of "retail pet store". This change protects the health of pets sold sight unseen over the Internet and via phone- and mail-based businesses. APHIS has received 333 completed applications since the retail pet store rule went into effect, and there are currently 230 licensees under the rule. In FY 2015, the AW program posted a guidance document on its website for animal breeders, brokers and importers regarding the Retail Pet Store Rule. The document provides information to purveyors of USDA-regulated animals as to whether USDA requires those individuals to be licensed under the AWA or if they are exempt from licensing. The document is now available on the APHIS website.

In FY 2015, APHIS drafted a proposed rule to amend standards concerning the humane handling, care, treatment and transportation of marine mammals in captivity. This rule also updates the section of the AWA regulations concerning "swim-with-the-dolphin" programs. APHIS' goal with this rule is to ensure that USDA licensees and registrants safeguard their animals under practical and enforceable standards.

2. Horse Protection

Since 1970, APHIS has enforced the Horse Protection Act (HPA), a Federal law aimed at ending the cruel and inhumane practice of soring and preventing unfair competition by making it unlawful to show, sell, or transport sore horses. Soring is the cruel and abusive practice of applying a chemical or mechanical irritant to any limb of a horse to cause a pain-induced high-stepping gait. This accentuated gait is used primarily in training Tennessee Walking Horses, racking horses and related breeds to provide a competitive edge during show events. USDA conducts oversight of the program through unannounced inspection at horse shows, sales, auctions or other exhibiting events.

Inspection Activities

The HPA requires all horses to be inspected prior to being shown. USDA uses a third-party inspection program to carry out the HPA. The program includes the USDA certifying the Horse Industry Organizations (HIOs) and the HIO licensing a Designated Qualified Person (DQP) to inspect horses for HPA compliance. In FY 2015, DQPs attended 305 HPA events and inspected 44,388 horses. In total, DQPs identified 246 HPA violations. APHIS attends select shows and sales to evaluate DQP performance and oversee HIO and participant compliance with the HPA requirements. In FY 2015, APHIS attended 50 HPA events and inspected 7,883 horses. More than 48 percent of all the violations of soring detected in FY 2015 were identified when APHIS inspectors were present at the show.

The Tennessee Walking Horse National Celebration show is the premier Tennessee Walking Horse event of the year. At the 2015 Celebration show, APHIS and the DQPs conducted 1,392 inspections on all horses prior to being shown. This is an increase of 317 horse inspections from the 2014 Celebration. During the inspection process, APHIS cited 227 soring violations and DQPs cited 35 violations. The HPA requires that any horse found to be sored will be disqualified from being shown or exhibited. APHIS inspections resulted in 182 disqualified horses and DQP inspections resulted in 29 disqualified horses.

The Agency continued to apply objective and scientific diagnostics tools during the inspection process, including iris scanning, thermography, gas chromatography/mass spectrometry, and digital radiology. For example, the use of thermography allows the Agency to detect distinctive thermal patterns which can be a result of the inflammatory response to soring or revealing that a substance was applied to mask soring. APHIS has been able utilize the thermography equipment as a pre-screening tool, and physically inspect fewer horses, while maintaining a high level of detection of soring. In FY 2015, APHIS utilized thermography imaging on 3,280 horses, with 756 horses requiring a USDA to inspect for signs of soring.

Additionally, APHIS analyzed 768 foreign substance samples to provide confirmation of the use of a mechanical irritant, of which 65 percent tested positive. This is a significant increase in the identification of foreign substances from FY 2014. APHIS added drug testing via blood collection and tested 80 horses, of which 16 tested positive for foreign substances used in soring activities. APHIS inspectors would not have detected these substances using the conventional chromatography/spectrometry. APHIS also implemented iris-scanning technology to identify horses

conventional chromatography/spectrometry. APHIS also implemented iris-scanning technology to identify horses with a history of soring. Finally, inspectors conducted 77 digital radiography images to further identify hoof abnormalities.

Enforcement Activities

Although the 5th Circuit Court of Appeals overturned an APHIS final rule requiring HIOs to impose minimum penalties for HPA violations in February 2015, the Agency continues to rigorously oversee HIOs and enforce the HPA to the greatest extent of its current authorities and resources. With respect to improving the welfare of horses, APHIS' enforcement branch initiated 233 cases; issued 503 Official Warnings; and obtained 16 administrative orders assessing $9,900 in civil penalties and disqualifying 17 individuals from participating in activities regulated under the HPA. The Agency issued one pre-litigation settlement agreement, resulting in the collection of $1,500 in stipulated penalties against an individual for a violation of the HPA.

With respect to administrative orders, APHIS obtained two decisions and orders issued by an Administrative Law Judge finding that a horse trainer committed two violations of the HPA, resulting in assessment of a $4,400 civil penalty and a two-year disqualification from showing or entering any horse or otherwise participating in any horse show, exhibition, or sale. APHIS also negotiated many administrative consent decisions under the HPA, including one consent decision in which an individual agreed to a four-year disqualification as well as the transfer in ownership and possession of two horses exposed to violations of the HPA.

Outreach/Stakeholder Activities

Upon request by the HIO, APHIS provides classroom instruction on the HPA and regulations during the HIO DQP yearly training seminars. In FY 2015, APHIS provided 12 training sessions, including refresher training to existing DQP inspectors and USDA inspectors, and initial training for those interested in becoming DQP inspectors.

APHIS also presented an outreach and recruitment exhibit display of the Horse Protection Program at the following national veterinary conventions: American Association of Equine Practitioners Annual Convention in Salt Lake City, Utah, in December 2014; Western Veterinary Conference in Las Vegas, Nevada, in February 2015; and American Veterinary Medical Association Annual Convention in Boston, MA, in July 2015. The Horse Protection program was also invited to present at the Sound Horse Summit in Washington DC, in October 2014; American Horse Council Annual Conference in Washington DC, in June 2015, and Animal Advocacy Annual Stakeholder Meeting in Riverdale, Maryland, in 2015.

Regulatory Changes

In a 2014 Report, the USDA Office of Inspector General raised concerns about inconsistent or lax HPA enforcement on the part of HIOs. USDA is actively considering a number of potential regulatory revisions, including restructuring the licensing of DQPs so that they are licensed by APHIS rather than by horse industry organizations. By doing so, the Agency can further efforts to end soring and promote fair competition within the industry.

AGENCY MANAGEMENT

Current Activities: The Agency Management programs support the daily operations of APHIS and provide for a safe and secure work environment. These programs provide funding for the information technology, rent and telecommunications infrastructure that gives Agency employees the tools they need to carry out their responsibilities. These programs also provide funding to oversee and implement precautionary security measures to ensure continued mission operations while ensuring the safety of APHIS people and facilities. In addition, these programs supports APHIS' contribution to the U.S. Department of State's continuing implementation of the Capital Security Cost Sharing Program, which provides safe and secure workplaces for all U.S. government employees located overseas.

Selected Examples of Recent Progress in Agency Management:

1. APHIS Information Technology and Infrastructure

APHIS' Information Technology Infrastructure (AITI) is comprised of the hardware, software, and telecommunications security infrastructure that provides Agency employees with office automation tools, Internet access, and access to mission-critical information technology (IT) programs and administrative applications. APHIS maintains, enhances, and operates the IT infrastructure to support Agency business, conduct research and analysis, carry out administrative processes, record program activities, and deliver program services. AITI objectives and priorities are to continually improve sharing of information across the Agency; improve coordination and accessibility of information, processes, and resources available to assist programs in emergencies; and improve APHIS' cyber-security. AITI funding is used to maintain annual software license and hardware agreements, and to provide for life-cycle replacement for enterprise hardware.

The FY 2015 accomplishments listed below support these objectives:

- License Renewal – APHIS supported 8,259 users with license renewals so they can access and legally use the enterprise software in conducting business.
- Availability – APHIS supported internal and external stakeholders by providing optimal levels of service. The Agency continued to maintain 99.97 percent availability for its key computing systems this fiscal year. In support of the recent emergency efforts related to the highly pathogenic avian influenza outbreak, AITI also extended its availability outside of the normal operational hours, on weekends, and holidays to ensure availability of systems.
- Technology – APHIS completed the federal government-wide requirement for implementation of LincPass credential access to connect to the network and systems such as the financial system, time and attendance system, and the web-based learning system.
- Cyber-Security – APHIS re-emphasized the avoidance of misuse and/or abuse of IT systems to Agency employees, as a result of the 2015 Office of Personnel Management (OPM) security breach. AITI also provided capabilities to communicate with APHIS employees on the latest information regarding OPM's response to the breach.

2. Physical Operational Security

APHIS oversees and implements precautionary measures to ensure continued, efficient mission operations, and protection from disruption, degradation, or destruction of its facilities through the Physical and Operational Security (POS) program. POS provides year-round security measures, such as physical security upgrades, alarms, badging and identification systems, guard services, security assessments, safety and risk assessments, workplace violence training, and investigations of both internal and external threats. These measures protect APHIS employees, as well as visitors and stakeholders from harm, acts of terrorism, and violence. In addition, this program supports part of the USDA's contribution to the U.S. Department of State's continuing implementation of the Capital Security Cost Sharing program, which provides safe and secure workplaces for all government employees located overseas.

POS provides numerous security trainings to Agency employees. In FY 2015, the program provided 20 trainings to more than 1,600 Agency employees including self-defense seminars, security briefings and refreshers, operations in high threat foreign environments, travel briefings, workplace violence prevention, and training on personally identifiable information. To enhance preparedness and response, APHIS required Active Shooter training for all employees through on-line and classroom based training, and delivered an Active Shooter response exercise for approximately 700 employees in Riverdale, Maryland. This scenario-based training provided a dynamic, interactive exercise for APHIS employees, as well as law enforcement officers from 12 Federal, State, and local agencies. POS also ensures that all Agency personnel are annually trained on the proper safeguarding of classified information as required by Executive Order 13526, Classified National Security Information.

The POS program investigates, assesses, and mitigates all threats directed at Agency facilities, programs and personnel. These threats include death threats, terrorist threats, and assaults, among others. In FY 2015, APHIS investigated 67 workplace violence allegations and 59 external threats to APHIS employees. The program

completed physical security assessments at 46 facilities, and installed or upgraded 68 facilities to ensure that the buildings are compliant with Homeland Security Presidential Directive-12 (HSPD-12). This directive created a government-wide standard for secure and reliable forms of identification to access Federally-controlled facilities and networks. Additionally, APHIS implemented the requirements of the RealID Act requiring all visitors without HSPD-12 compliant identification be escorted at all times while in APHIS facilities.

The POS program purchased 1,000 personal identification verification (PIV) card readers to bring all APHIS computers into Office of Management and Budget compliance with mandatory PIV use for access to Agency information systems. Additionally the POS program was responsible for issuing or updating more than 2,000 PIV badges, sponsoring the costs to bring APHIS employees in compliance with PIV use and funding six Registrars, who are responsible for enrolling and activating the badges, to issue and update PIV badges.

Additionally, POS ensures the safety of APHIS employees who enforce the Animal Welfare Act (AWA) and the Horse Protection Act (HPA). APHIS security specialists investigate threats and respond to requests for protection throughout the country for APHIS veterinarians and inspectors who are enforcing regulations in challenging environments. With regard to safeguarding APHIS employees entering private property, POS provided security during 41 inspections of regulated AWA entities, and 5 confiscations of animals from regulated entities in FY 2015. The program also provided security for Agency inspectors at 54 horse shows in 9 States where APHIS conducted inspections related to the HPA.

The POS program works to ensure the safety of employees working at or near the Mexican border, and throughout Mexico and Guatemala. As added protection for activities near the Mexican border, all employees in Mexico received Global Positioning System emergency trackers. In FY 2015, APHIS continued to distribute these protection devices to employees conducting Agency activities where potential safety concerns existed. In addition, the POS procured 100 Personal Locator Beacons for APHIS employees working in riverine, lacustrine or marine environments.

In response to detections of highly pathogenic avian influenza on 232 premises in 21 States the program coordinated security support for infected premises in Minnesota and Iowa, by providing security guards and establishing security perimeters and procedures. In addition, the program supported deployed employees and contractors by providing security briefings and conducting threat assessments of the work area.

APHIS also works with other USDA Agencies, the U.S. Department of Justice, U.S. Department of Homeland Security, the U.S. Department of State, and local law enforcement agencies to ensure that the appropriate organization takes the lead, contributes to program costs, and integrates security where employees are co-located.

APHIS maintains a presence overseas to facilitate agricultural trade and monitor pest and disease threats. The Security Embassy Construction Counterterrorism Act's Capital Security Cost Sharing Program requires the Agency to help fund the construction of New Embassy Compounds based on the number of authorized positions. In FY 2015, APHIS had 319 full-time employees based in countries around the world. This program provides safe and secure diplomatic facilities for the Agency's overseas personnel. If the program were not funded, these measures would continue to be implemented at the expense of other program operations because it is necessary to maintain a safe work environment.

3. Rental and Department of Homeland Security Payments

This account currently supports rental payments associated with 236 General Services Administration (GSA) leases and Department of Homeland Security (DHS) payments at certain facilities. The funding allows APHIS programs to continue carrying out mission-related activities, including surveillance for animal and plant pests and diseases, pest and disease eradication programs, diagnostic and methods development work at laboratories, animal welfare inspections, and wildlife damage management activities, without diverting fiscal resources from operations to cover these costs.

FY 2015 was the first year each USDA Agency directly paid GSA rental and DHS security payments within their appropriation instead of using a centralized account in the Department. APHIS, along with two other agencies,

requested and Congress approved the authority to use prior year expired unobligated balances to cover this year's costs, which exceeded what the appropriation provided. Without approval to use those balances, APHIS may have been required to cover the costs using current year appropriated funding from several line items.

APHIS is taking several steps to reduce rent expenses and better manage its space portfolio overall. This year, APHIS initiated detailed analyses of space usage at hub locations to identify opportunities for space reduction or consolidation. APHIS programs also are conducting reviews of GSA-leased field facilities in support of space reduction. In addition, APHIS realty staff developed a five-year rolling timeline that identifies GSA leased locations the Agency plans to review as lease expiration approaches. Once complete, these analyses will allow us to identify additional locations where the Agency can reduce space. In addition, the analyses will assist management in validating activities performed at each facility to ensure those locations where APHIS conducts user fee or reimbursable activities bear a proportionate share of the lease costs in the future. These efforts will help the Agency reduce unneeded space and better align rental expenses with the budgetary resources available to finance them.

APHIS also is in the process of implementing other measures for managing its space portfolio. The Agency's senior management is examining the current process for approving space changes (e.g., increasing or decreasing space at facilities, renewing leases) as leases approach expiration. They documented the current process in FY 2015 and will continue to explore ways to improve the process to ensure that the Agency is reducing its footprint where possible.

MULTI-AGENCY COORDINATION (MAC) GROUP

Selected Examples of Recent Progress in Multi-Agency Coordination Group:

1. Huanglongbing (HLB)

HLB is a serious disease of citrus that threatens all U.S. citrus production, valued at $3.3 billion in 2014. HLB infects trees in all of Florida's citrus groves, greatly reducing production and acreage. Additionally, the disease is present in all of Texas' citrus producing areas, and its insect vector, the Asian citrus psyllid (ACP), is widespread in urban areas in southern California, threatening the State's more than $1.5 billion citrus industry. APHIS established the HLB MAC response framework in December 2013 to help address the industry's immediate and long-term needs in dealing with this devastating disease. In addition to APHIS, the MAC is comprised of representatives from USDA's Agricultural Research Service, National Institute of Food and Agriculture, Office and Pest Management Policy, and Risk Management Agency; the Environmental Protection Agency; State departments of agriculture in Florida, Arizona, California, and Texas; and citrus industry organizations in Florida, California, and Texas. The FY 2014 Omnibus Appropriations Act provided a one-time, two-year appropriation of $20 million to APHIS for the HLB MAC, which is coordinating efforts to identify and support promising tools and solutions that citrus growers can use against HLB in the short-term.

Over the course of the two years, the HLB MAC group funded 32 projects carried out by State cooperators, universities, private companies, and Federal agencies. The HLB MAC used two processes for allocating the funds. The first was a direct funding process, where the HLB MAC members identified promising tools that could be implemented quickly. These projects included increasing production of biological control agents to target ACP, field trials of promising antimicrobial treatments to treat HLB-infected trees, demonstration groves in Florida and Texas, and testing of disease-tolerant rootstock. In Texas, with funding from the HLB MAC and the Citrus Heath Response Program, biological control efforts have reduced the population of ACP nymphs (immature insects) by 85 percent.

The HLB MAC Group also used a stakeholder project suggestion process for stakeholders to submit HLB-related suggestions for potential funding. A group of reviewers evaluated and scored the suggestions based on whether they met specific criteria, including timeliness of positive impact, usefulness and cost-effectiveness for citrus growers, technical merit/likelihood of success, and whether the tool can easily be scaled up or commercialized within a reasonable timeframe, among others. The HLB MAC Group funded 15 stakeholder-suggested projects in four categories: vector control, therapies for infected trees, sustainability of new plantings, and early detection

technologies. Among the early detection projects is one that supported the training and use of detector dogs to find asymptomic HLB-infected trees (those infected but not yet showing visible signs of the disease) in citrus groves. The dogs trained to date are able to detect HLB in young trees with 99 percent accuracy. Finding infected trees early would allow the grower to remove them before the disease spreads to other trees. One vector control project provided improvements to field cages used to produce biological control agents within residential areas with the help of residents. The Texas Department of Agriculture, as well as a large citrus producer in Florida, have already adopted this technology. Several projects are working on improved methods of providing thermotherapy as well as delivery of thermotherapy on a grove scale. Trees treated with thermotherapy have shown they can regain productivity for at least four years after reducing the amount of HLB in the tree. Several growers have used the thermotherapy model built through the HLB MAC project to build machines for use in their own groves. Several commercial firms are also using this technology to offer thermotherapy as a business service. In addition, researchers are evaluating a variety of strategies for sustainable citrus production that were developed independently in the last decade. The HLB MAC is supporting several projects that use various combinations of these strategies to determine combinations that are most effective on trees in the field. Some strategies include tolerant root stocks and scions, high intensity management, and new planting strategies. One strategy Florida growers have adopted is to lower the pH (increase acidity) of soil and water high in bicarbonates to allow better uptake of nutrients by the plant and regeneration of healthy roots, even when a tree is infected with HLB.

APHIS is tracking the percent of tools and techniques developed through the HLB MAC that growers or commercial firms adopt. Growers or commercial firms have already adopted more than 13 percent of the tools.

CONTINGENCY FUNDS

1. Cattle Fever Tick

In FY 2015, APHIS spent approximately $2.4 million in Agency contingency funds on efforts to eradicate a Cattle Fever Tick (CFT) outbreak in Cameron and Willacy Counties, Texas. CFT transmit babesiosis, a severe and often fatal cattle disease. Even when not transmitting this disease, CFT can cause blood loss, damage to hides, and an overall decrease in the condition of livestock. CFT remains well established within a 500-mile buffer zone from Del Rio, Texas, to the Gulf of Mexico. When CFT is detected outside of the zone, APHIS and the Texas Animal Health Commission (TAHC) take quick action to prevent any further spread.

From May to September of 2014, APHIS and the TAHC confirmed six unrelated CFT infestations north of the Cameron County permanent quarantine zone. On October 7, 2014, the TAHC issued a Temporary Preventative Quarantine Area encompassing 222,520 acres in Cameron County. During FY 2015, APHIS and the TAHC inspected 6,578 animals and treated 856 animals. By the end of FY 2015, APHIS and the TAHC had identified 20 infested premises outside the quarantine area (in the tick-free area) in Cameron and Willacy Counties
To address this situation, APHIS and the TAHC created a joint Incident Command System to eradicate the CFT in the Temporary Preventative Quarantine Area to determine the extent of the spread, prevent further spread, and control CFT on nilgai (an Asian antelope), white-tailed deer, and other ungulates capable of hosting CFT. This effort involved systematically inspecting and treating all premises, livestock, and other hosts within the temporarily quarantined area, as well as controlling the movement of livestock and hunted animal trophies. In addition, APHIS collaborated with the TAHC and the U.S. Fish and Wildlife Service (FWS) to harvest the nilgai in the area. In FY 2015, the Agency also used pesticides to kill ticks on livestock, ensured animals were appropriately identified, and conducted tick surveillance through the controlled removal of nilgai and inspections of wildlife harvested during public hunting events on FWS refuges.

In FY 2015, APHIS worked to complete an Environmental Impact Statement regarding the installation of game fencing along the Permanent Tick Quarantine Line. The fence, which will be installed in FY 2016, will create a minimally intrusive pest control measure that augments existing programs. It will reduce the likelihood of disease transmission from wildlife and help prevent re-infestation of areas where the pest has been or is being eliminated. In addition, it will reduce the economic burden that extends to the U.S. government and taxpayers by reducing the potential for pest entry.

SUMMARY OF 2015 CONTINGENCY FUND RELEASES

	Emergency/Activity	Releases from Contingency Fund in FY 2015	Total Obligations in FY 2015
1	Cattle Fever Tick	$2,386,703	$2,378,842
	Total	$2,386,703	$2,378,842

EMERGENCY ACTIVITIES FUNDED BY TRANSFERS FROM COMMODITY CREDIT CORPORATION (CCC)

1. Grasshopper

APHIS cooperates with Federal, State, Tribal, and local agencies, organizations, and institutions to conduct survey and suppression activities in western States to reduce damage caused by grasshopper and Mormon cricket (GMC) outbreaks. These activities protect resources valued at more than $8.7 billion, according to a 2012 Economic Analysis prepared by the University of Wyoming through a cooperative agreement with APHIS. Uncontrolled GMC infestations could cause significant economic losses for U.S. livestock producers by reducing animal food supply in rangeland, therefore, forcing producers to buy supplemental feed or sell their livestock at reduced prices. APHIS conducts annual surveys of grasshopper populations in 17 western States, through the Field Crop and Rangeland Ecosystem Pests program, to determine where treatments may be needed. While grasshopper populations remained well below outbreak levels in many areas in FY 2015, areas of Montana experienced very high populations. Using carryover from an emergency funding transfer from the Commodity Credit Corporation (CCC), APHIS protected 110,472 acres on tribal lands belonging to the Northern Cheyenne, Crow, and Flathead Tribes. The program also used CCC funds to conduct smaller ground treatments in Arizona, protecting 1,719 acres. Before conducting any treatments, APHIS confirms the species of the grasshopper, as some do not cause damage to rangeland and others can provide ecological benefits by eating weeds, leaving grasses for grazing livestock.

2. Farm Bill

Plant Pest and Disease Management and Disaster Prevention (Farm Bill Section 10007) – FY 2014

The Agricultural Act of 2014 consolidated two of APHIS' Farm Bill programs: Plant Pest and Disease Management and Disaster Prevention Program (formerly Section 10201) and the National Clean Plant Network (NCPN) (formerly Section 10202) now under Section 10007, Plant Pest and Disease Management and Disaster Prevention Program.

Through the Plant Pest and Disease Management and Disaster Prevention program (first established by the Food, Conservation, and Energy Act of 2008), APHIS makes available Commodity Credit Corporation funds for early plant pest detection and surveillance, identification and mitigation of plant pests and diseases, and technical assistance in the development and implementation of audit-based certification systems and nursery plant pest risk management systems. Since 2009, APHIS has funded more than 2,200 projects in 50 States and 2 U.S. territories, strengthening the Agency's and cooperators' abilities to protect U.S. agriculture and natural resources from foreign pest threats. In support of the NCPN, which provides reliable sources of pathogen-free planting stock of high-value specialty crops, APHIS and cooperators also have provided funding and other support to 20 clean plant centers and associated programs in 17 States representing fruit trees, grapes, citrus, berries, hops, sweet potatoes, and roses.

Plant Pest and Disease Management

APHIS and cooperators have identified six major strategies (the first with two sub-goals) to implement Plant Pest and Disease Management efforts: 1a) enhancing plant pest/disease analysis; 1b) enhancing plant pest survey 2) targeting domestic inspection activities at vulnerable points; 3) enhancing pest identification tools and technology; 4) developing programs to safeguard nursery production; 5) enhancing outreach and education; and 6) enhancing mitigation capabilities. APHIS funded 434 projects in FY 2015, supporting a variety of stakeholders, including Federal, State, academic, Tribal, and private entities.

Enhance Plant Pest Analysis

Under this goal, APHIS supports projects that compile, synthesize, or evaluate data to inform or enhance risk and pathway analysis, surveillance methodology, or resource prioritization. Using funds under this area, USDA's Agricultural Research Service developed a model to identify higher risk points of entry for invasive pests and prevent their introduction. This tool uses U.S. census and foreign travel data to better understand exotic pest movement, optimize surveys for early detection, and support proactive planning. APHIS has applied the model to citrus programs in Florida and is expanding its use to California and Texas. In FY 2015, the program provided approximately $2.1 million for 24 projects in this goal area. Examples include a project to develop models for predicting the cumulative and ecological impacts of exotic pests and pathogens on forests of the eastern United States, and an economic analysis of control strategies for managing tortricid moths, a group that includes pests that attack apples, stone fruit, and grapes.

Enhance Plant Pest Survey

Under this goal, APHIS supports surveys for multiple, high-risk pests in port environs, across pathways of introduction, and in specialty crop commodities nationally. These surveys provide protection for and help small growers and nursery owners avoid control costs through a more rapid and thorough detection of pests that threaten their operations. Overall, the program provided approximately $15.4 million for 164 projects in this goal area, including 80 commodity- and taxon-based surveys targeting 98 different pests. These included surveys for pests of grapes, stone fruit, and small fruits/mixed berries. In FY 2015, the program also launched the National Survey of Honey Bee Pests and Diseases in cooperation with the University of Maryland, USDA's Agricultural Research Service, and apiary specialists in 37 States and Territories. This coast-to-coast survey, the most comprehensive one to date for honey bee pests—will provide crucial baseline data to gauge colony health and detect exotic pest introductions quickly.

Target Domestic Inspection Activities at Vulnerable Points in the Safeguarding Continuum

Under this goal, APHIS supports domestic inspection activities at high risk sites (e.g., warehouses and parcel facilities), inspects regulated articles moving interstate, and uses trained canine detection teams to improve detection capabilities. Developing these cooperative efforts with State agriculture regulatory agencies helps minimize impacts to producers and distributors of agricultural commodities. In FY 2015, the program supported canine team efforts in California where 14 teams work at Express Couriers and U.S. Postal Service offices in 10 counties, and in Florida where 6 teams work at Express Couriers in 4 counties and are cross trained to detect Giant African Land Snails. With their keen sense of smell, dogs can detect hidden agricultural products at an accuracy rate higher than 90 percent. The program uses canine teams to enhance capacity for early detection and better response to exotic pests found during surveys; increase liaison between State and Federal cooperators by reviewing, developing, and implementing educational programs; provide additional resources at high risk areas within the state for inspection; and benefit inspections at parcel service locations to enhance interdiction efforts. Overall, the program provided approximately $5.8 million for seven projects in this goal area in FY 2015.

Enhance Pest Identification and Technology

Under this goal, APHIS supports the ongoing development of improvements in pest identification and detection. This includes improved identification capacity and taxonomic understanding of groups of organisms, taxonomic support for surveys targeting high consequence pests, and the development of pest detection technology. One key

project is the National Survey Supply Program that oversees timely procurement and delivery of quality survey supplies, such as traps and lures, to APHIS and State cooperators. In FY 2015, the Survey Supply Program procured, and is in the process of, distributing nearly 500,000 traps and lures that target exotic pests to all 50 States and several territories. Other projects include a Regional Identification Center for Bark Beetle and other woodboring beetles in Oregon, a Pulse Crop Diagnostic Laboratory in Montana, and a project to broaden the application of DNA barcode diagnostic approaches to identify nematodes that affect horticultural commodities. A past project has led to the development of a diagnostic tool that detects specialty crop pathogens in real time. APHIS has piloted the rapid detection tool at two plant inspection stations and has now partnered with a biotechnology company to commercialize several biosensors for plant pathogen detection. APHIS spent approximately $4.82 million on 58 projects in support of this goal in FY 2015.

Safeguard Nursery Production

Under this goal, APHIS supports projects to develop science-based best management practices and risk mitigation practices to exclude, contain, and control regulated pests from the nursery production chain, and developing and harmonizing audit-based nursery certification programs. These activities help small producers and distributors mitigate pest risks, reduce operational costs, and enhance the value of nursery stock they produce. Examples of projects funded in FY 2015, include assessing disinfectants for use in controlling *Phytophthora ramorum* and a project to study boxwood blight epidemiology to enhance mitigation strategies for this disease. The program has also supported the Systems Approach to Nursery Certification (SANC) pilot program. SANC brings together the National Plant Board and nursery industry groups to promote audit-based programs for nursery stock to reduce the risks of pest spread. The program provided approximately $2.1 million for 29 projects in this goal area in FY 2015.

Education and Outreach

Under this goal, APHIS works to engage the public in early detection efforts by strengthening existing volunteer networks. APHIS emphasizes efforts that can lead to changes in behavior among the public and the regulated community that enhance efforts to prevent the introduction or spread of high-consequence pests into and throughout the United States. Clemson University in South Carolina used this funding to create a Citizen Scientist/Junior Invasive Inspectors Program. This initiative teaches middle school kids to conduct surveys for invasive forest pests. Junior Inspectors work with adult volunteers who, in turn, work with Clemson extension agents. Participants can earn rewards for continued survey work and pest reporting on the Junior Invasive Website. Overall, the program provided approximately $3.2 million for 51 projects in this goal area in FY 2015.

Enhance Mitigation and Rapid Response Capabilities

Under the goal of enhancing mitigation capabilities, APHIS provides technical assistance prior to, during, and immediately following a plant pest outbreak, develops new mitigation tools and strategies, and increases emergency preparedness through the development of New Pest Response Guidelines and Incident Command System training. Some of these efforts provided support for development of new methods or treatments for economically significant pests including the Khapra beetle, exotic whiteflies, giant African snail, and pale cyst nematode. APHIS also supported mitigation of spotted lanternfly in Pennsylvania and the old world bollworm in Puerto Rico and Florida. The spotted lantern fly was recently detected in the United States for the first time, and it has the potential to impact grape production, orchard fruits, and the timber industry. The old world bollworm could attack numerous crops, including corn, cotton, grains, and specialty crops. APHIS also provided funds to help eradicate exotic fruit fly outbreaks in California and Texas in FY 2015. APHIS spent $19.11 million on 101 projects in this goal area in FY 2015.

National Clean Plant Network (NCPN)

In FY 2015, APHIS also used Section 10007 funds to provide NCPN support to qualified clean plant centers through a cooperative agreements program. The application process allowed stakeholders to offer input into projects proposed for funding through pre-proposals, which are designed to help clean plant centers prioritize and harmonize their resourcing requests. As a result, APHIS entered into 24 cooperative agreements with clean plant centers and related entities in 18 States and 1 U.S. territory (Puerto Rico). The clean plant centers that receive NCPN funding

are using the resources to: 1) diagnose for harmful pathogens that cause disease in covered specialty crops; 2) apply therapeutic measures to eliminate these pests; 3) establish plantings of clean plant 'starter' material and make this material available to nurseries and growers; 4) work with nurseries and growers in education/outreach programs to communicate the economic value to industry of using clean nursery stock; and 5) engage in the process of establishing and governing a network of collaborative clean plant centers. These activities will result in clean plant centers providing additional sources of healthy planting stock for fruit trees, grapes, citrus, berries, and hops -- as well as sweet potato and roses. This healthy planting stock will be available to nurseries, growers, breeders, and others, ensuring that they have access to clean plant material necessary to sustain their businesses, maintain productivity, and improve the quality of their products.

Since the program's inception, the clean plant centers have:

- Fruit Trees - Maintain about 2,250 clean fruit tree accessions in foundations that have delivered more than 500,000 cuttings, scions, and plantlets as well as more than 1.7 million buds to nurseries and growers.
- Grapes – Maintain about 1,000 selections of clean grapevine accessions in foundations and distributed more than 700,000 clean grape-wood cuttings, buds, plants, or special seed to industry.
- Berries – Diagnose and clean about 75 new berry accessions annually and maintain clean plant foundations that provide mother plants to industry that have produced nearly 30 million clean berry plants annually.
- Citrus – Maintain about 400 clean citrus tree accessions in foundations and deliver 'starter material' to industry that has resulted in more than 275 million clean citrus trees over the past 6 years.
- Hops – Maintain about 75 clean hop selections in foundations that are used to accommodate about 30 percent of the world's need for clean hops.
- Sweet potato – Add about 40 new sweet potato accessions annually to existing foundations.
- Roses – Initiated advanced testing of about 600 rose selections currently maintained in foundations.

3. Notifiable Avian Influenza

In FY 2015, APHIS spent approximately $829 million in CCC funds to rapidly address nationwide cases of highly pathogenic avian influenza (HPAI) to safeguard U.S. poultry and egg producers and reduce its effects on both agriculture and public health. From mid-December 2014 until mid-June 2015, APHIS confirmed 232 cases of HPAI in 21 States. The cases were in 211 commercial and 21 backyard poultry flocks, and approximately 50 million birds were destroyed. The H5 viruses detected in the outbreak were of low risk to humans and no human cases were detected during the outbreak.

APHIS responded to this unprecedented emergency by working with other Federal agencies and State officials in accordance with Federal and State HPAI response plans. These plans include implementing quarantine restrictions on the movement of poultry and poultry products from affected areas, depopulating affected flocks to prevent the disease from spreading, indemnifying producers, cleaning and disinfecting affected premises, and conducting surveillance and testing of poultry and backyard flocks near infected commercial poultry operations and backyard premises, live bird markets, and in migratory wild bird populations. In addition, State Departments of Agriculture and industry worked with poultry workers at affected facilities to ensure that they were taking proper biosecurity precautions. APHIS took several actions to minimize trade impacts. For example, APHIS and the U.S. poultry industry co-hosted an International Conference on Avian Influenza and Poultry Trade in June 2015 in Baltimore, Maryland, to review the risks of avian influenza viruses being introduced through global trade in poultry and poultry products, and to discuss appropriate measures to mitigate these risks. Further, APHIS complied with international standards for reporting and held numerous bilateral discussions with trading partners to encourage acceptance of trade standards established by the World Organisation for Animal Health. As a part of the emergency response, the Agency conducted surveillance activities to evaluate the role that commensal wildlife species may play in domestic flock infections. This work is ongoing, but is critical as part of an integrated emergency response and mitigation strategy. In addition, APHIS led the Wild Bird Avian Influenza Steering Committee, comprised of State and Federal partners, to develop the Surveillance Plan for HPAI in Waterfowl in the United States. The program will sample 50,000 birds as part of this plan.

After the last case of HPAI was detected in mid-June 2015, APHIS efforts focused on completing the depopulation, disposal, composting, and cleaning and disinfection activities on the 211 commercial premises and preparing for restocking. As of October 1, 2015, APHIS had completed the cleaning and disinfection process on 200 of the

affected premises, and approved 179 premises to restock their birds. The Agency also conducted subsequent environmental sampling to ensure the virus is no longer present before the premises are restocked. Completing this process will allow impacted premises to restock, and resume business. It will also allow APHIS to continue to prepare for the fall of 2015 when even larger outbreaks may occur.

During the emergency response, APHIS maintained a stockpile of personal protective equipment to supplement the Agency's National Veterinary Stockpile and the Agency Respiratory Protection Program. The Agency Respiratory Protection Program is responsible for the acquisition and maintenance of fit-testing equipment and conducting fit-testing. In FY 2015, the Agency maintained 25 respirator fit-tester units and purchased 4 additional units for a total of 29. Additionally, APHIS moved the equipment to the required locations to support routine and emergency response activities and supported training for a cadre of 132 collateral duty fit-testers, including initial training for 12 of those fit-testers. APHIS also stood up onsite clinics to perform fit testing in Modesto, California, in January 2015 and at the onboarding academy in Ames, Iowa, from May through September 2015. In summary, APHIS fit tested more than 1,000 personnel for appropriate respiratory protection.

4. Swine Enteric Coronaviruses

In FY 2015, APHIS spent approximately $7.0 million in CCC funds in response to the identification of swine enteric coronavirus diseases (SECD) in 33 States and Puerto Rico in FYs 2013 and 2014 (with porcine epidemic diarrhea being the most notable). With this funding, the Agency continued to work with States and the swine industry to manage SECD infections and minimize the impact of these diseases on swine producers and the swine industry.

In June 2014, APHIS published a Federal Order that included mandatory disease reporting and required producers and veterinarians to develop herd monitoring and management plans. The Agency created these orders to ensure that the Federal government, States, and industry have sufficient information to characterize and understand the scope of SECD to inform control options and decrease disease spread. APHIS also worked with producers and veterinarians to implement enhanced biosecurity measures on farms. These State and Federal actions address the SECD outbreaks in a manner that supports business continuity for commercial pork producers and maintains a safe supply of pork for consumers. The CCC funds also financed Agricultural Research Service research to enhance understanding of the virus, examine disease transmission methods to inform biosecurity efforts, and protect swine health.

Mandatory reporting has established more robust SECD reporting mechanisms. In addition, the data retrieval processes from the National Animal Health Laboratory Network of labs has increased data management efficiency and enhanced APHIS' ability to respond to emerging diseases. Further, the establishment of the financial reimbursement processes for producers' disease response activities will pay dividends for this and future emerging disease responses.

APHIS' efforts have contributed to the continuity of international trade and the pork industry's efforts to market their products. SECD detections have significantly decreased since the winter of 2014 and spring of 2015, and only sporadic identifications of SECD have been reported since June 2015. In FY 2016, APHIS will continue to manage SECD infections and minimize the impact of these diseases on swine producers and the swine industry until CCC funding is exhausted.

5. Tuberculosis

In FY 2015, APHIS spent approximately $2.2 million in CCC funds on TB eradication activities in Texas and Michigan. In October 2014, the Food Safety and Inspection Service detected a slaughter cow with TB at a beef packing plant in Castro County, Texas. In March 2015, a private veterinarian also detected TB in a Michigan dairy during an annual area surveillance testing, which is required by the State. The Michigan dairy contained more than 300 cows.

To respond to these detections, APHIS worked closely with State animal health officials to quickly identify any cattle that may have come into contact with the infected cattle or herds, and conduct thorough trace back investigations. In addition, the States worked closely with the dairies involved, as well as the State dairy industry, to

ensure the disease was quickly contained, and the affected dairies could return to normal business practices as soon as possible. APHIS oversaw and managed the epidemiological investigation and the quarantined herds, implemented depopulation and indemnification activities, and conducted a complete epidemiological investigation of the infected herds back to 2009. The States assisted with epidemiological analyses, cleanup efforts, and herd response efforts. These efforts typically involve a mix of depopulation and test-and-removal strategies, based on factors such as herd size, potential indemnity costs, State and owner preferences, genetics, and the probability of removing infection. In addition, APHIS worked with the States to carry out enhanced surveillance, which is necessary to disclose any other affected herds and to determine the source of infection.

Regarding the Texas detection, APHIS traced the cow back to a nearby large dairy, which consisted of approximately 4,600 cows and an equal number of replacement calves of various ages. APHIS and State officials confirmed a 5-6 percent prevalence level of TB infection in this herd based on whole-herd testing. With this level of prevalence, APHIS determined that the more timely and cost-efficient option was for the producer to depopulate the entire herd than to follow a test-and-remove strategy. The dairy owner owns another large dairy in northwestern Texas, which had approximately 5,600 cows and approximately the same number of calves. There was very limited specific movement of cattle between the dairies. Replacement heifers for the second premises are raised separately from the primary premises at several calf-raising facilities. By the end of FY 2015, more than 1,600 animals had been removed. In addition, a private appraiser will conduct an appraisal for complete depopulation by mid-November 2015. The Michigan cows that tested positive for TB were euthanized and necropsied. APHIS and State officials determined a TB prevalence of approximately 8 percent in that herd. By the end of FY 2015, 41 animals had been removed, and an appraisal for complete depopulation had been conducted. The detection of these herds in Texas and Michigan demonstrates the effectiveness of APHIS' surveillance system. Occurrences of TB in cattle and dairy herds have varied between only 3 and 13 herds per year since 2005. Still, APHIS must remain vigilant to ensure that any cases are detected and addressed quickly.

SUMMARY OF KEY FY 2015 CCC FUNDED EMERGENCY ACTIVITIES

	Emergency/Activity	Total Available in FY 2015 a/	Total Obligations in FY 2015
1	Grasshopper	$309,110	$285,361
2	Farm Bill	58,463,983	57,657,051
3	Notifiable Avian Influenza	992,982,396	828,798,387
4	Swine Enteric Coronaviruses	16,379,187	7,044,366
5	Tuberculosis	$19,903,759	$2,179,679
	Total	$1,088,038,435	$895,964,844

a/ Total Available includes account recoveries, where applicable.

The estimates include appropriations language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Buildings and Facilities:

For plans, construction, repair, preventive maintenance, environmental support, improvement, extension, alteration, and purchase of fixed equipment or facilities, as authorized by 7 U.S.C. 2250, and acquisition of land as authorized by 7 U.S.C. 428a, $3,175,000, to remain available until expended.

Buildings and Facilities
Lead-off Tabular Statement

Budget Estimate, 2017	$3,175,000
2016 Enacted	3,175,000
Change in Appropriation	-

Summary of Increases and Decreases
(Dollars in thousands)

Program	2014 Actual	2015 Change	2016 Change	2017 Change	2017 Estimate
Discretionary Appropriations:					
Basic buildings and facilities repair, alterations, and preventive maintenance	$3,175	-	-	-	$3,175
Total Appropriation or Change	3,175	-	-	-	3,175

Project Statement
Appropriations Detail and Staff Years (SYs)
(On basis of appropriation)
(Dollars in thousands)

Program	2014 Actual		2015 Actual		2016 Enacted		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Appropriations:								
Buildings and Facilities	$3,175	-	$3,175	-	$3,175	-	$3,175	-
Total Appropriations	3,175	-	3,175	-	3,175	-	3,175	-
Balance available, SOY	2,852	-	1,484	-	2,107	-	2,282	-
Recoveries	119	-	1,883	-	3,581	-	-	-
Total Available	6,146	-	6,542	-	8,863	-	5,457	-
Balance available, EOY	-1,484	-	-2,107	-	-2,282	-	-2,457	-
Total Obligations	4,662	-	4,435	-	6,581	-	3,000	-

Project Statement
Obligations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	2014 Actual		2015 Actual		2016 Enacted		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Obligations:								
Buildings and Facilities	$4,662	-	$4,435	-	$6,581	-	$3,000	-
Balance available, EOY	1,484	-	2,107	-	2,282	-	2,457	-
Total Available	6,146	-	6,542	-	8,863	-	5,457	-
Recoveries	-119	-	-1,883	-	-3,581	-	-	-
Balance available, SOY	-2,852	-	-1,484	-	-2,107	-	-2,282	-
Total Appropriations	3,175	-	3,175	-	3,175	-	3,175	-

Justification of Increases and Decreases
Buildings and Facilities

Buildings and Facilities program ($3,175,000 available in 2016).

The Buildings and Facilities (B&F) program addresses APHIS' facility needs to support the Agency's mission of protecting the health and value of agriculture and natural resources nationwide. The program's goal is to systematically address the Agency's needs for maintaining and repairing existing facilities, as well as constructing new facilities. Projects are driven by APHIS' Facility Condition Index (FCI), which is the sum of the costs of needed repairs divided by the replacement value of the facility. APHIS strives to maintain an FCI for facilities assessed of less than 0.10, meaning that the cost to make repairs is less than 10 percent of the estimated replacement value for the facilities.

This program serves a vital role in maintaining APHIS' facilities so that employees can continue to carry out their responsibilities in a safe and efficient manner. The commitment to maintain the condition and functionality of facilities is an ongoing process that demands significant management of capital resources. This program creates private sector jobs through the construction projects it carries out.

The program manages the implementation of scheduled facility improvements, security, construction, and maintenance. Contractors perform inspections and tests to substantiate that the supplies or services furnished under the contract conform to contract requirements. In addition, a design firm validates that the work aligns with approved plans and specifications. APHIS typically identifies on-site certified personnel to perform the contracting services. The Agency's engineering staff attends on-site construction progress meetings, and APHIS collects performance data through contractor reports and on-site verification.

As of October 2015, the program is managing 52 active projects. In FY 2015, APHIS awarded 28 design/construction projects at a cost of approximately $4.4 million and completed 26 construction projects. Approximately half of these repairs were major renovations and half were minor repairs. The Agency will use FY 2017 funds to conduct facility condition assessments at approximately 13 APHIS facilities.

In FY 2015, the program focused on addressing underutilized buildings at the National Centers for Animal Health in Ames, Iowa. This includes the deconstruction of the Administration Building. APHIS has separated the building's wiring from surrounding buildings that were still in use to reduce utility and maintenance costs and is considering the best use for the facility in the future. In addition, APHIS will address critical deficiencies at facilities located in Rock Springs, Wyoming and Reynosa, Mexico. APHIS will continue to address facility needs and focus on deconstruction of underutilized facilities in FY 2017.

Approximately 99 percent of the B&F funding supports indefinite delivery, indefinite quantity contracts (e.g., architect and engineering support) and construction contracts. These contracts, which provide for an indefinite quantity of supplies or services during a fixed time period, help streamline the contract process and expedite service delivery. The remaining funds support operating costs.

If the B&F program was not funded, APHIS would be unable to centrally coordinate and prioritize these types of projects. As a result, necessary maintenance and repairs to facilities would not occur unless funded at the expense of an Agency operational activity. This would create program delays, possible environmental consequences, and noncompliance with State and local laws and codes. In addition, it would accelerate the pace of the deferred maintenance backlog and associated cost, which currently exceeds $117 million. Many of APHIS' facilities have specialized functions that support various Federal, State, and local government programs, stakeholders, and customers. B&F projects ensure that APHIS' programs can be conducted at safe, secure, sound, sustainable, and high-performance facilities that support APHIS' mission.

Buildings and Facilities

Geographic Breakdown of Obligations and Staff Years (SYs)
(Dollars in thousands)

State/Territory	2014 Actual		2015 Actual		2016 Enacted		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
United States:								
California	-	-	-	-	$71	-	$71	-
Colorado	$25	-	-	-	-	-	-	-
Florida	2,570	-	$43	-	440	-	440	-
Idaho	-	-	25	-	-	-	-	-
Iowa	426	-	3,585	-	3,982	-	401	-
Maryland	86	-	-	-	71	-	71	-
Massachusetts	134	-	184	-	-	-	-	-
Mississippi	-	-	22	-	71	-	71	-
Montana	-	-	18	-	-	-	-	-
New York	125	-	2	-	-	-	-	-
Texas	463	-	240	-	781	-	781	-
Utah	-	-	184	-	-	-	-	-
Wyoming	47	-	31	-	-	-	-	-
Puerto Rico	-	-	30	-	46	-	46	-
Mexico	270	-	71	-	595	-	595	-
Central America:								
Panama	347	-	-	-	353	-	353	-
Guatemala	169	-	-	-	171	-	171	-
Total direct obligations	4,662	-	4,435	-	6,581	-	3,000	-

Buildings and Facilities

Classification by Objects
(Dollars in thousands)

		2014 Actual	2015 Actual	2016 Enacted	2017 Estimate
Other Objects:					
25	Other Services	$4,662	$4,435	$6,581	$3,000
	Total, other objects	4,662	4,435	6,581	3,000
	Total direct obligations	4,662	4,435	6,581	3,000

STATUS OF MAJOR CONSTRUCTION PROJECTS

Buildings and Facilities

The Buildings and Facilities (B&F) appropriation funds major, nonrecurring, construction projects in support of program activities, and recurring construction, alterations, and repairs of existing facilities. These projects and activities allow other programs and employees to focus on APHIS' mission of protecting the health and value of agriculture, and natural resources nationwide. The goal of the B&F program is to systematically address the Agency's needs for maintaining and repairing existing facilities, as well as constructing new facilities. APHIS assigns each facility with a Facility Condition Index (FCI), which is the sum of the costs of needed repairs divided by the replacement value of the facility, and uses the FCI scores to determine each year's projects. APHIS strives to maintain an FCI for facilities assessed of less than 0.10, meaning that the cost to make repairs is less than 10 percent of the estimated replacement value for the facilities.

This program serves a vital role in maintaining APHIS' facilities so that employees can carry out their responsibilities safely and efficiently. Maintaining the condition and functionality of these facilities is an ongoing process that demands significant management of capital resources. This program creates private sector construction jobs. If the B&F program were not funded, APHIS would be unable to centrally coordinate and prioritize these projects. As a result, all necessary maintenance and repairs to facilities would have to be funded at the expense of an Agency operational activity. This could create program delays, possible environmental consequences, and could jeopardize human health and safety. In addition, it would accelerate the pace of the deferred maintenance backlog and associated cost, which currently exceeds $117 million. Many of APHIS' facilities have specialized functions that support various Federal, State, and local government programs, as well as stakeholders and customers. B&F projects ensure that APHIS' programs can be conducted at safe, secure, sound, sustainable and high-performance facilities that support the Agency's mission.

APHIS' B&F program maximizes its efficiency through comprehensive construction projects. The Agency spends approximately 99 percent of its funding on indefinite delivery, indefinite quantity, and construction contracts. These contracts, which provide for an indefinite quantity of supplies or services during a fixed time period, help streamline the contract process and expedite service delivery. Remaining B&F funds support information technology projects (i.e., Facilities Capital Planning and Management software).

The following provides a status of ongoing major construction projects and program efforts as of October 2015.

Summary of Current Projects

The B&F program implements scheduled improvements, and conducts security, construction, and maintenance activities. Contractors perform inspections and tests to substantiate that the supplies or services furnished under the contract conform to contract requirements. In addition, a third party design firm validates that the work aligns with approved plans and specifications. APHIS typically identifies on-site certified personnel to perform the contracting services. The Agency's engineering staff attends on-site construction progress meetings, and APHIS collects performance data through contractor reports and on-site verification. As of October 2015, there are 52 active projects. In FY 2015, APHIS awarded 28 design/construction projects at a cost of approximately $4.4 million and completed 26 construction projects. Approximately half of these repairs were major renovations and half were minor repairs.

Facilities Condition Assessment

In FY 2000, APHIS began a comprehensive Facilities Condition Assessment program to: better understand the condition of facilities, strategically maintain them by identifying deficiencies and funding needs, stabilize the facilities repair backlog, predict maintenance needs, and implement financial management and capital asset improvement efforts. The consulting firm tasked with assessing APHIS' facilities has an automated process for assessing the relative condition of assets, and facilitating comparisons both within and among facilities. The consulting firm calculates an FCI for each facility by program and Agency. At the end of FY 2015, the FCI for the 44 facilities assessed was 0.18, meaning the cost to correct currently identified and anticipated deficiencies is 18

percent of the estimated replacement value for the 44 facilities. Of these 44 facilities, 34 scored above a 0.10 and 10 scored below a 0.10. The Agency strives to maintain an FCI below 0.10.

APHIS National Wildlife Research Center (NWRC) Field Station & Wildlife Services State Director's Office Modernization Project, Gainesville, Florida

The 2011 NWRC Research Needs Assessment found that Federal, State, and private respondents each ranked feral swine as their top priority research need. The laboratory at the Florida Field Station addressing feral swine and other wildlife diseases does not have the adequate space, infrastructure, or capacity to support current activities and emerging research needs. Specifically, significant renovations are needed to address the identified deficiencies (e.g., asbestos-containing materials, laboratory exhaust systems, fire alarm and suppression), bring the facility into compliance with the Americans with Disability Act, and modernize business practices within the facility. The facility's current FCI is 0.20. In FY 2013, APHIS tasked an architectural and engineering firm with developing a program of requirements for this modernization project. APHIS awarded a Design-Build Construction contract in FY 2014, and work continued under this contract in FY 2015. The Agency anticipates that this project will be complete during the third quarter of FY 2016.

National Centers for Animal Health – Building #400 Deconstruction, Ames, Iowa

Building #400 was originally scheduled for deconstruction in FY 2015. However, APHIS postponed its deconstruction while the Agency used Building #400 to support its response to the Highly Pathogenic Avian Influenza outbreak. Building #400 housed agency and contractor personnel and served as an active command post in the second half of FY 2015. APHIS awarded the deconstruction contract in FY 2015 and demolition is scheduled to resume upon the conclusion of the emergency response efforts. The Agency's deconstruction of Building #400 supports the Office of Management and Budget policy to "reduce the Federal real property footprint."

Summary of Budget and Performance
Statement of Department Goals and Objectives

The Secretary of Agriculture established the Animal and Plant Health Inspection Service (APHIS) on April 2, 1972, under the authority of Reorganization Plan No. 2 of 1953 and other authorities. The mission of the Agency is to protect the health and value of U.S. agricultural and other plant and animal resources, vulnerable to pests, diseases, predation, natural disasters, or inhumane treatment. In carrying out this mission, the role of APHIS is to collectively do what individuals and individual organizations cannot do; for example, responding to animal and plant pest and disease emergencies, addressing widespread pests and diseases, and dealing with foreign governments to mitigate trade issues and barriers.

Together with its stakeholders, APHIS protects the health of livestock, poultry, and crops from pests and diseases. The Agency also helps to promote animal welfare, mitigates agricultural damage caused by wildlife, defends the environment from invasive species, regulates the movement and release of specific genetically engineered organisms, protects natural resources, and ensures public health and safety. The primary focus of protecting America's agriculture stems from the underlying premise that health and profitable agriculture is good for America. It creates jobs, feeds the world, and it is good for the economy.

APHIS has six strategic goals and seventeen strategic objectives that contribute towards the Secretary's priority goals.

USDA Strategic Goals: Assist Rural Communities to Create Prosperity So They Are Self-Sustaining, Repopulating, and Economically Thriving. Ensure That All of America's Children Have Access to Safe, Nutritious, and Balanced Meals.

USDA Strategic Objectives: 1.1: Enhance rural prosperity, including leveraging capital markets to increase government's investment in rural America. 4.4: Protect agricultural health by minimizing major diseases and pests to ensure access to safe, plentiful, and nutritious food.

Agency Strategic Goal	Agency Objectives	Programs that Contribute	Key Outcome
Goal 1: Prevent the entry and spread of agricultural pests and diseases.	Objective 1.1: Work with foreign governments and partners to keep damaging pests and diseases from entering the United States. Objective 1.2: Work with foreign governments and partners to prevent the spread of damaging pests and diseases.	• Agriculture Quarantine Inspection • Cattle Health • Cotton Pests • Specialty Crop Pests • Veterinary Diagnostics	Reduce or mitigate the impact of agricultural pests and diseases by preventing the entry or spread of agricultural pests and diseases.

Key Outcome: Reduce or mitigate the impact of agricultural pests and diseases by preventing the entry or spread of agricultural pests and diseases.

Key Performance Measures and Targets:

APHIS protects U.S. livestock, poultry, specialty crops, corn, cotton, and wheat industries worth approximately $195 billion. U.S. agriculture as a whole supports 1 in 12 jobs and provides U.S. consumers with 83 percent of the food we consume. APHIS' pest and disease prevention efforts help ensure that U.S. farms and ranches remain healthy and productive by keeping devastating pests and diseases from entering the country. APHIS works with many partners, including the U.S. Department of Homeland Security's Customs and Border Protection (CBP), foreign governments, State departments of agriculture, and a variety of other U.S. government agencies on these prevention programs that help ensure U.S. and international consumers have access to safe, nutritious food. For

example, APHIS works jointly with CBP to provide for inspections of imported animal, plant, and other agricultural goods, products, and other articles at U.S. ports of entry to prevent the introduction of harmful agricultural pests and diseases. APHIS also conducts inspections of passenger baggage and cargo leaving Hawaii and Puerto Rico for the continental United States. Demand for inspection services from Hawaii and Puerto Rico has increased in recent years as the number of passenger flights from these islands increased by 8.4 percent between FY 2011 and FY 2015. APHIS is seeking additional resources in FY 2017 to maintain its level of inspections and increase effectiveness through adding detector dog teams, among other things.

APHIS cooperates with foreign governments to prevent the northward spread of two extremely destructive pests into the United States—screwworm from South America and the Mediterranean fruit fly (Medfly) from Central America. In 1976, a screwworm outbreak in Texas caused an estimated $113 to $150 million in losses. Nearly four decades later, screwworm damage has been contained because of the APHIS preventative program. This program continues to keep this serious pest away from U.S. livestock by maintaining a barrier against it in Panama through the use of sterile insect technology. Medfly has one of the widest host ranges of any fruit fly pest and is considered one of the most serious agricultural pests in the world. The pest especially threatens high-value specialty crops such as citrus and tree fruit. Maintaining barriers to prevent this pest from entering the United States is imperative, especially considering increasing U.S. consumer demand for imported fruits and vegetables in recent years. In FY 2017, APHIS will continue efforts to prevent the reestablishment of screwworm in the United States by working with Panama, Mexico, and Central American countries to maintain a screwworm-free barrier zone in the Darien Gap, a narrow 102-mile stretch of jungle along the border of Colombia and Panama. The Agency will also continue to work with foreign partners to prevent the spread of the Medfly into the United States. In FY 2015, APHIS funded a workshop on the sharing of countries' experiences on fruit fly control methods and perspective for harmonization of control approaches in West Africa. The workshop gathered 29 participants representing National Plant Protection Organizations (NPPO) and mango growers associations from seven West African countries. Results included the harmonization of fruit fly control methods throughout the West Africa region including bait, orchard sanitation, and biological controls, and establishment of national fruit fly control committees with operational plans. APHIS also cooperates with the Mexican government to eradicate two devastating cotton diseases (the boll weevil and pink bollworm) and prevent them spreading into areas in the United States adjacent to the border. Other activities include maintaining a quarantine buffer in Texas against the spread of cattle fever ticks and diseases such as bovine babesiosis and working with Mexico to control Mexican fruit fly outbreaks along the border that threaten Texas citrus production.

APHIS provides international leadership to mitigate the global spread of pests and diseases through a variety of partnerships and international organizations. For example, APHIS serves as the World Organisation for Animal Health (OIE) reference laboratory for 13 diseases through the National Veterinary Services Laboratories (NVSL). NVSL's services improve science-based decisions in animal disease detection and quarantine, which in turn result in minimizing impacts and disruptions to important domestic and international export markets. APHIS will use its expertise and show leadership through partnering with other reference laboratories around the world and work with other countries, such as Canada and Mexico, to harmonize diagnostic methods.

Performance Measure	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Target	2017 Target
Export losses prevented by the APHIS Screwworm program on an annual basis	N/A	$53 million	$53 million	$53 million	$54 million	$54 million	$54 million
Number of sterile Medfly pupae produced weekly	1 billion	0.8 billion	1 billion	1 billion	1 billion	1 billion	1 billion

Performance Measure	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Target	2017 Target
Percent of cattle fever tick outbreaks occurring outside the quarantine zone eliminated in less than 12 months	100%	100%	100%	100%	100%	100%	100%

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- Conducted 20,610 inspections of individual premises for cattle fever ticks, including 4,498 river trail patrols in FY 2015.
- Maintained the Medfly-free zone in Mexico and Guatemala of approximately 149,000 square kilometers in FY 2015.
- Inspected more than 19,000 imported plant shipments containing 1.5 billion plant units (cuttings, whole plants, or other propagative materials) and approximately 746,169 kilograms of seeds at APHIS Plant Inspection Stations in FY 2015.

Selected Accomplishments Expected at the FY 2017 Proposed Resource Level:

- Eradicate the Cattle Fever Tick outbreak in Texas by FY 2016, and continue to eliminate all outbreaks of cattle fever ticks occurring outside the quarantine zone within 12 months.
- Continue to work with the Governments of Mexico and Guatemala to maintain a barrier against the northward spread of Medfly.
- Continue to work with the U.S.-Panamanian Commission to maintain the screwworm barrier at the Darien gap of Panama.

USDA Strategic Goal: Assist Rural Communities to Create Prosperity So They Are Self-Sustaining, Repopulating, and Economically Thriving.

USDA Strategic Objective: 1.1: Enhance rural prosperity, including leveraging capital markets to increase government's investment in rural America.

Agency Strategic Goal	Agency Objectives	Programs that Contribute	Key Outcome
Goal 2. Ensure the humane care and treatment of vulnerable animals.	Objective 2.1: Improve the welfare of animals covered under the Animal Welfare Act. Objective 2.2: Reduce the detection of horse soring in the Tennessee walking horse industry.	• Animal Welfare • Horse Protection	Provide modern and collaborative tools and services to protect the welfare of animals.

Key Outcome: Provide modern and collaborative tools and services to protect the welfare of animals.

Key Performance Measures and Targets:

The welfare of animals nationwide continues to attract significant media attention and passionate public engagement. Front and center in the dialogue has been APHIS, which plays the unique Federal role of ensuring the humane care and treatment of millions of animals covered by the Animal Welfare Act (AWA) and the Horse Protection Act. Twenty-seven States, the District of Columbia, and a number of municipalities have enacted laws establishing some form of humane welfare standards for animals. However, none of these laws address all categories of welfare required under the AWA, including veterinary care, food and water, proper sanitation, and housing. Consequently, Federal oversight is necessary to ensure that AWA regulations are consistently applied in all States.

APHIS oversees more than 7,300 licensees and registrants associated with more than 10,000 facilities regulated under the AWA. APHIS inspects facilities (with a focus on re-inspecting problem facilities), educates regulated entities, provides detailed training for inspectors, investigates complaints, and pursues civil penalties and other enforcement measures when necessary. Together, these efforts yielded impressive results: regulated entities maintained an average 95 percent compliance rate with the AWA in the past 5 years. APHIS' goal is to maintain the high rate of AWA compliance in fiscal years 2016 and 2017. New licensees and registrants present a unique opportunity for APHIS to have a lasting impact on the way they care for their animals and improve program efficiency. APHIS has increased the rigor of its pre-licensing program for dog dealers to ensure that prospective licensees fully understand the AWA's requirements before obtaining a license, which reduces overall noncompliance over time. The program is tailored to the individual licensee based on an initial discussion, the condition of the facility during the first visit, and developing individualized materials and presentations that focus on specific aspects or issues at each facility. In FY 2015, APHIS inspectors licensed 773 new entities and conducted 952 pre-licensing inspections. The Agency determined that 95 percent of these newly licensed facilities were in substantial compliance at their first unannounced inspection. APHIS will continue to strive for this high rate of compliance in FY 2017.

Also of note are additional efforts APHIS has made to build trusting, collaborative relationships with new and old partners. Collaborative efforts with regulated entities represent one of the best opportunities for ensuring compliance with the AWA. APHIS continues to develop new techniques and approaches to assist facilities with operating in compliance with the AWA. For instance, in FY 2015, APHIS continued a program for facilities that express a commitment to improving the health and welfare of their animals. Conducted in addition to the regular inspection process, the Comprehensive Compliance Analysis and Planning Program assists licensees who have a desire to comply with the AWA but have various issues hindering their ability to maintain compliance. The result has been a significant increase in compliance with the AWA from program participants. Of the 51 participating facilities to date, APHIS inspectors found a 54 percent reduction in the identification of non-compliances at the third routine inspection with those participants. APHIS will continue to assess the impact this program has on participants in fiscal years 2016 and 2017. In FY 2015, the Agency also continued to conduct outreach, investigate complaints, and issue necessary licenses for those entities impacted by the 2014 final rule that revised the definition of "retail pet store". This change protects the health of pets sold sight unseen over the Internet and via phone- and mail-based businesses and there are currently 230 licensees under the rule. APHIS posted a guidance document on its website for animal breeders, brokers, and importers regarding the Retail Pet Store Rule. The document provides information to purveyors of USDA-regulated animals as to whether USDA requires those individuals to be licensed under the AWA or if they are exempt from licensing.

As with the AWA, APHIS enforces the HPA through a regimen of inspections and pursuit of appropriate measures to address noncompliances. The HPA prohibits the showing, sale, auction, exhibition, or transport of horses that have been "sored"—subjected to chemical or mechanical irritants that irritate or blister a horse's forelegs, causing a high-stepping gait that provides a competitive edge. APHIS inspectors, along with designated qualified person (DQP) inspectors, inspect all horse entries at HPA-events. A DQP inspector is a person who is delegated authority by the management of a horse event to inspect horses for soring according to the HPA. A Horse Industry Organization (HIO), certified by the USDA, licenses DQP inspectors. In FY 2015, APHIS and DQP inspectors examined more than 54,120 horses at 305 HPA-events across the United States. APHIS anticipates that with the introduction of greater program efficiencies we can conduct inspections at more shows and improve the show horse industry's compliance with the HPA.

Performance Measure	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Target	2017 Target
Percent of licensees inspected and registrants in substantial compliance of the Animal Welfare Act	98%	95%	96%	96%	95%	96%	96%

Performance Measure	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Target	2017 Target
Percent of facilities determined to be in substantial compliance at the first unannounced inspection after receiving a license (conducted 6-9 months later)	N/A	N/A	N/A	97%*	95%	95%	95%

*APHIS identified a data calculation error in reporting the FY 2014 figure previously. This figure has been updated from 63 percent.

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- Maintained the Agency's high average compliance rate for regulated entities under the AWA.
- Continued to protect the well-being of over 2.5 million animals covered under the AWA.
- Licensed 230 entities conducting business as retail pet stores as defined by the 2014 final rule.

Selected Accomplishments Expected at the FY 2017 Proposed Resource Level:

- Maintain or increase compliance with the AWA by exploring new ways to conduct outreach and partner with regulated entities.
- Continue to identify opportunities to gain consistency and improvement during AWA inspections.
- Expand the use of foreign substance testing and soring detection technologies during the HPA inspection process.

USDA Strategic Goal: Ensure that our National Forests and Private Working Lands Are Conserved, Restored, and Made More Resilient to Climate Change, While Enhancing Our Water Resources.

USDA Strategic Objective: 2.1 Improve the health of the nation's forests, grasslands, and working lands by managing our natural resources.

Agency Strategic Goal	Agency Objectives	Programs that Contribute	Key Outcome
Goal 3. Protect forests, urban landscapes, rangelands and other natural resources, as well as private working lands, from harmful pests and diseases.	Objective 3.1: Reduce damage to valuable natural and agricultural resources caused by plant pests and diseases. Objective 3.2: Reduce damage to valuable natural and agricultural resources caused by wildlife.	• Field Crop and Rangeland Ecosystems • Tree and Wood Pests • Wildlife Damage Management • Wildlife Service Methods Development	Provide tools and services to protect forests, urban landscapes, rangelands and other natural resources, as well as private working lands from harmful pests and diseases.

Key Outcome: Provide tools and services to protect forests, urban landscapes, rangelands and other natural resources, as well as private working lands, from harmful pests and diseases.

Key Performance Measures and Targets:

America's forests, rangelands, and other working lands are valuable resources that provide jobs, support ranches, provide habitat for wildlife, and create recreation opportunities. U.S. forests alone provide economic opportunities and ecosystem services worth an estimated $1.2 trillion. APHIS coordinates national programs that target damage caused by the Asian longhorned beetle (ALB), emerald ash borer, gypsy moth, grasshopper and Mormon cricket

outbreaks, thousand cankers disease, depredation from migratory birds, and damage from other wildlife such as beavers and deer. Together, APHIS and key partners focus on preventing the spread of pests and diseases and mitigating damage they cause. Specific activities include: conducting pest surveys and inspections to more accurately delimit the infestation of specific pests and diseases and wildlife; developing and implementing control strategies; conducting eradication efforts where appropriate, such as removing or treating host trees or problem wildlife; conducting public outreach and education to enlist the public's support for these efforts; developing predictive analytical tools and risk-based models to inform trapping and survey work; and establishing new regulatory frameworks to minimize negative impacts on regulated business in quarantine areas, while still protecting American forests and rangelands from the spread of these harmful events. The following are highlights of these cooperative efforts.

Trees provide environmental value as forest and natural canopy and economic value when used in production of wood products. Trees are also an integral part of urban and suburban neighborhoods. ALB threatens forest resources nationwide, as 30 percent of U.S. trees are potential ALB hosts. APHIS is working to eliminate ALB from the United States as a whole; longstanding strategies and collaborations have proven successful as APHIS and other Federal and State partners have eradicated ALB outbreaks from Chicago, Illinois; Islip, Staten Island and Manhattan in New York; and Jersey City, and Union and Middlesex Counties, New Jersey. In FY 2014, APHIS completed eradication activities of the ALB infestation in and around Boston, Massachusetts, and continued confirmation surveys in FY 2015. To declare full eradication, a final round of negative survey is required with control activities and the completion of secondary surveys. Four years is the minimum amount of time between that last detection of the pest in a given area and the completed final survey cycle. These successes prevented multi-billion dollar losses to urban and suburban communities and the maple syrup, timber, tree nursery, trade and tourism industries. APHIS is continuing to address outbreaks in other areas of Massachusetts, Ohio, and New York. Although the program has been successful, APHIS and its cooperators continue to improve program delivery and to create more efficient projects. For example, APHIS and cooperators modified both ALB survey and control protocols, resulting in more efficient use of resources required to eradicate the pest. For example, amended survey protocols allowed the program to focus on only surveying maples from 0.5 to 1.5 miles from an infested tree, instead of surveying all host trees in that area. In FY 2017, APHIS plans to continue to reduce the damage caused by this devastating pest and look for ways to improve program effectiveness and efficiency.

It is also critical to protect U.S. agricultural crops and rangelands against pest and disease damage. The value of rangeland forage across western States is estimated to average $13 per acre; the comprehensive value of rangeland for use as wildlife habitat, to stabilize soils and filtering water, and for recreation and other uses is two to three times greater than that. Although grasshoppers and Mormon crickets are natural components of rangeland ecosystems, their populations can reach outbreak levels and cause serious damage, especially when accompanied by drought conditions. APHIS' grasshopper and Mormon cricket program monitors and protects 661 million acres of rangeland worth a total of nearly $8.78 billion. Uncontrolled infestations could cause significant economic losses for U.S. livestock producers by reducing animal food supply in rangeland, therefore forcing producers to buy supplemental feed or sell their livestock at reduced prices. APHIS conducts surveys in western States that provide information to help landowners and managers manage outbreaks. To reduce damage caused by grasshoppers, APHIS applies predictive models that allow early-season treatments using lower levels of insecticides to reduce immature pest populations as an alternative to using more expensive and stronger pesticides required to address mature pests. In FY 2015, APHIS applied treatments to 207,401 acres of rangeland, which protected rangeland forage and wildlife habitat on approximately 384,000 acres. The increase in acres treated this year is largely due to areas of Montana experiencing very high populations. APHIS will continue conducting surveys and treatments to manage these pests in fiscal years 2016 and 2017.

Wildlife damage can also pose threats to the U.S. economy and to public health and safety. For example, the damage caused by beavers in the southeastern United States alone is estimated to have exceeded $3 billion over the last 40 years. To address and prevent costly beaver damage, APHIS removes beaver dams that clog waterways and flood roads and timber resources. In FY 2015, APHIS conducted beaver damage management activities in 37 States, including five State/region-wide programs supported by cooperator-provided funds. Other examples include activities to reduce depredation or nuisance issues caused by migratory birds protected by Federal laws (such as Canada geese); damage to forested areas by overabundant deer in national parks, forests, or suburban communities;

and damage to landscapes or infrastructure from roosting birds such as vultures and large flocks of gulls. In FY 2017, APHIS will continue to reduce damage caused by wildlife.

Performance Measure	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Target	2017 Target
Acreage protected by the Tree & Wood Pest Programs (Area outside of quarantine)	N/A	596 million acres	596 million acres	596 million acres	596 million acres	596 million acres	596 million acres
Value of forest products and ecosystem services protected (based on acreage protected)	N/A	$1.19 trillion	$1.19 trillion	$1.19 trillion	$1.19 trillion	$1.19 trillion	$1.19 trillion
Rangeland acreage protected by APHIS' grasshopper program	N/A	661 million acres	661 million acres	661 million acres	661 million acres	661 million acres	661 million acres
Value of rangeland protected by APHIS' grasshopper program	N/A	$8.78 billion	$8.78 billion	$8.78 billion	$8.78 billion	$8.78 billion	$8.78 billion

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- Eradicated ALB from Norfolk and Suffolk Counties, in and around Boston, Massachusetts, bringing the total number of ALB outbreaks eradicated to six (in Illinois, New York, New Jersey, and Massachusetts).
- Monitored and protected 661 million acres of rangeland worth a total of nearly $8.8 billion.
- Conducted more than 1,400 beaver damage management projects in South Carolina, reducing damage by an estimated $2.05 million.

Selected Accomplishments Expected at the FY 2017 Proposed Resource Level:

- Continue addressing ALB outbreaks in Massachusetts, Ohio, and New York.
- Continue conducting surveys and treatments to successfully manage grasshoppers and Mormon crickets.
- Collaborate with private industry on research to develop new technologies to reduce damage, such as a contraceptive for managing bird populations.

USDA Strategic Goal: Help America Promote Agricultural Production and Biotechnology Exports as America Works to Increase Food Security.

USDA Strategic Objective: 3.2: Enhance America's ability to develop and trade agricultural products derived from new and emerging technologies.

Agency Strategic Goal	Agency Objectives	Programs that Contribute	Key Outcome
Goal 4. Ensure the safety of genetically engineered organisms and veterinary biologics.	Objective 4.1: Ensure that certain genetically engineered crops that are "regulated articles" as defined in our regulations will not pose plant pest risks when released into the environment. Objective 4.2: Ensure pure, safe, potent and effective veterinary biologics are available for diagnosis, prevention, and treatment of animals.	• Biotechnology Regulatory Services • Veterinary Biologics	APHIS will scientifically demonstrate the safety of biotechnology and veterinary biologic products and facilitate their development to benefit producers and consumers.

Key Outcome: APHIS will scientifically demonstrate the safety of biotechnology and veterinary biologic products and facilitate their development to benefit producers and consumers.

Key Performance Measures and Targets:

The biotechnology industry—valued worldwide at $280 billion—is constantly developing innovative products of modern biotechnology (including genetically engineered (GE) organisms) that can greatly benefit the public. On the plant health side, GE crops can increase yields or decrease crop losses due to pests and diseases. On the animal health side, veterinary biologics derived from modern technologies help to prevent, diagnose, and treat serious animal diseases. However, before any of these products can be brought to market, it is essential to demonstrate—through rigorous, scientific review—that they do not pose a risk to America's agricultural and natural resources. APHIS provides the regulatory controls that ensure new GE crops will not pose plant health risks when released into the environment and that veterinary biologics are safe, pure, potent, and effective. In addition to protecting America's agriculture, these controls instill confidence in the public and in our trading partners that GE products produced in America are of the highest quality.

APHIS regulates the importation, interstate movement, and field release—or "introduction"—of GE organisms that may pose a risk to plant health. As part of its science-based framework, APHIS requires developers to apply for a permit or notification before introducing these organisms into the environment and conducts thorough scientific analyses to evaluate potential plant risks and environmental impacts before authorizing such introductions. Once a developer can demonstrate that a GE crop does not pose a risk to plant health, the developer can petition APHIS to seek deregulation of the crop. As of the end of FY 2015, APHIS has made a cumulative total of 117 determinations of regulated status, increasing the number of products that developers can bring to the marketplace. APHIS expects the cumulative number of determinations of non-regulated status to increase from 117 in FY 2015 to 126 in FY 2017.

APHIS ensures regulatory compliance on the part of the biotechnology community through inspections, educational and outreach efforts, and investigations and audits. In FY 2015, APHIS authorized 1,500 notifications and permits throughout the United States. The program conducted 688 site inspections with 96 percent of those inspected found to be in compliance with APHIS' regulations. In FY 2017, APHIS' will inspect more higher-risk sites with a goal that 90 percent of those inspected to be in compliance.

Through its efforts to ensure the safety and effectiveness of U.S. veterinary biological products, valued at $1.35 billion, APHIS safeguards the health of millions of livestock and pet animals and protects domestic and worldwide markets for U.S. animals and animal products, worth $182 billion. APHIS protects animals and animal owners from contaminated, worthless, or dangerous products. The Agency also facilitates the entry of new, innovative products to the market, expanding options for animal owners to protect the health of their animals. In FY 2015, the Agency

licensed 97 manufacturers for approximately 1,724 active veterinary biological product licenses/permits for the control of 220 animal diseases, including porcine epidemic diarrhea virus, for which there is a pure, safe, potent, and effective CVB-licensed product. These products are critical for protecting American agriculture, facilitating trade, and enhancing agricultural economic opportunities.

APHIS continuously evaluates its activities and makes adjustments to improve efficiency and effectiveness. APHIS has conducted business process improvement reviews of both its biotechnology regulatory determination reviews and its veterinary biologics licensing reviews with the goal of streamlining the processes and reducing the time required to allow companies to bring new products to market sooner. In FYs 2011 - 2013, APHIS conducted a series of reviews of its veterinary biologics licensing process to find time savings. The reviews focused on a range of objectives including the electronic workflow of documents and streamlining of submission processing and testing. As a result, APHIS has reduced licensing times by more than 20 percent on average for all biologics. For biotechnology regulatory reviews, in FY 2015, APHIS reduced the time to prepare a plant pest risk assessment from three to five years to 1.8 years (on average) while simultaneously almost eliminating the backlog of petitions. APHIS now delivers a more predicable petition process without compromising the quality of the analysis to support our decision making. APHIS expects to complete the remaining backlogged petition in FY 2016 and meet its target timelines for all petitions submitted in FY 2016 and FY 2017.

KEY PERFORMANCE MEASURE

3.2.1 Cumulative number of biotechnology products deregulated by USDA based on scientific determinations that they do not pose a plant risk to agriculture

Fiscal Year	Actual				Target	Actual	Result	Target	Target
	2011	2012	2013	2014	2015			2016	2017
Number	87	93	102	109	114	117	Exceeded	122	126
Funding in thousands	$13,037	$18,135	$16,738	$18,135	$18,875			$18,901	$19,022

Allowable Data Range for Met: Exceeded Target is if Actual > 114; Met Target is if Actual = 114; Unmet Target is if Actual < 114

Assessment of Performance Data

Data Source – USDA publishes a *Federal Register* notice announcing its determination of nonregulated status on the *Federal Register*. APHIS also maintains a table of the petitions on the APHIS website.

Completeness of Data - USDA publishes a notice in the *Federal Register*, or on its website, announcing its determination of nonregulated status for a GE organism, after its review and determination that the organism is safe for use in the environment. USDA maintains a web site that is updated with the latest information reflected in the *Federal Register*. This data is complete.

Reliability of Data - During the petition process, there are two opportunities for public involvement, once when the petition is complete through the *Federal Register* process and a second time after the associated environmental documents and plant pest risk documents are developed and published in the *Federal Register*. If the Department determines nonregulated status for the GE organism, the information is shared on the Web site to ensure transparency of regulatory decision making. APHIS closely tracks the publication of determinations to ensure that we are correctly reporting an accurate count. The number of determinations is published on the web and available for others to verify. The APHIS website correlates to the *Federal Register* publications and serves as a consolidated reference and a cross-check for counting purposes. This data is reliable.

Quality of Data – This data is used by both internal managers and external stakeholders as authoritative sources of information. For each petition submitted, USDA conducts a thorough scientific analysis to determine whether the GE organism poses a plant pest risk. USDA also prepares additional environmental analyses to evaluate the possible impacts of the GE organism on the human environment. This is quality data.

Analysis of Results

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- In FY 2015, APHIS made 8 determinations of regulatory status for biotechnology petitions, exceeding its target and bringing the cumulative total of deregulations to 117.

- In FY 2015, using the improved petition process, APHIS reduced the time to prepare a plant risk assessment from three to five years to 1.8 years (on average), while simultaneously almost eliminating the backlog of petitions.

Selected Accomplishments Expected at the FY 2017 Proposed Resource Level:
- APHIS expects the cumulative number of determinations of non-regulated status to increase from 117 in FY 2015 to 126 in FY 2017.
- USDA expects to complete the remaining backlogged petitions in FY 2016 and meet its target timelines for all petitions submitted in FY 2016 and FY 2017.

Additional Performance Information

Performance Measure	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Target	2017 Target
Percent of field release sites in compliance with biotechnology regulations designed to protect agriculture from plant pests	95%	98%	99%	99%	96%	99%	90% (Due to greater inspection of higher-risk sites)
Average number of days to issue a product license for veterinary biologics	425 days	344 days	341 days	347 days	340 days	340 days	340 days

Selected Past Accomplishments Toward Achievement of the Key Outcome:
- In FY 2015, APHIS and the States authorized 1,500 notifications and permits throughout the United States and conducted more than 688 site inspections.
- APHIS issued a conditional license to a vaccine for porcine epidemic diarrhea virus.

Selected Accomplishments Expected at the FY 2017 Proposed Resource Level:
- APHIS will maintain a high percentage rate of compliance with APHIS' regulations for field test sites.
- APHIS will continue to support the development and licensing of veterinary biologic products.

USDA Strategic Goal: Help America Promote Agricultural Production and Biotechnology Exports as America Works to Increase Food Security.

USDA Strategic Objective: 3.2: Enhance America's ability to develop and trade agricultural products derived from new and emerging technologies.

Agency Strategic Goal	Agency Objectives	Programs that Contribute	Key Outcome
Goal 5. Ensure the safe trade of agricultural products, creating export opportunities for U.S. producers.	Objective 5.1: Ensure the resolution of sanitary and phytosanitary issues and trade barriers. Objective 5.2: Eliminate all remaining bovine spongiform encephalopathy (BSE) barriers to export markets through a deliberate process of engagement with trading partners with BSE restrictions. Objective 5.3: Improve the export customer experience.	• Agriculture Import/Export • Overseas Technical & Trade Operations • Physical and Operational Security	Resolve sanitary and phytosanitary (SPS) trade barriers, improve international animal and plant health standards, and collaborate with U.S. and foreign partners to build capacity and prevent agricultural pest and disease threats from reaching the United States.

Key Outcome: Resolve sanitary and phytosanitary (SPS) trade barriers, improve international animal and plant health standards, and collaborate with U.S. and foreign partners to build capacity and prevent agricultural pest and disease threats from reaching the United States.

APHIS uses its technical expertise in animal and plant health to resolve sanitary (animal) and phytosanitary (plant) (SPS) issues that affect export opportunities for U.S. producers, allowing U.S. companies to be competitive in trade. In FY 2015, APHIS retained, expanded, or opened markets worth $2.5 billion for U.S. agricultural exports. The Agency also plays a central role in resolving technical trade issues to ensure the fast and safe movement of agricultural imports and exports. In FY 2015, our overseas employees secured the release of 293 detained shipments of U.S. agricultural products worth more than $25 million ranging from apples to Taiwan to eggs to the Dominican Republic. To support these export opportunities, the Agency negotiates animal and plant health certification requirements; assists U.S. exporters in meeting foreign regulatory requirements, ensuring requirements are proportional to risk without being excessively restrictive; and provides technical information to support the safety of U.S. agricultural products destined for foreign markets. APHIS' employees – including headquarters personnel, field staff, and personnel stationed in 30 countries play a critical role in the success of these efforts. In 2015, after 20 years of discussions and working closely with the U.S. apple industry and then with our Chinese partners through bilateral discussions, site visits, and proposal exchanges, APHIS was able to negotiate market access for all apple varieties from all U.S. States, a market worth an estimated $100 million with apple shipments starting this year. To gain access to this vital market, APHIS conducted extensive research, engaged in numerous diplomatic negotiations, demonstrated the robust pest and disease control measures used by U.S. apple producers, produced and shared pest lists and risk assessments to show which pests were already established in China and which ones were not likely to be moved to China by U.S. apples, and negotiated operational procedures (fruit handling, inspection, processing) that were acceptable to APHIS and China. APHIS will continue these type of progressive trade efforts in FY 2017.

APHIS also conducts capacity building activities to reduce risks to U.S. agriculture by helping developing countries strengthen their agricultural health infrastructure. Through these efforts, APHIS encourages developing countries to use the same science-based, international standards that the Agency uses to evaluate import requests. Much of this assistance is provided on a reimbursable basis aimed at a targeted and limited number of recipient countries based on the specific collaborators' needs. During FY 2015, APHIS responded to 135 requests for subject matter expertise, trainings, and other outreach-related activities. For example, in FY 2015, APHIS provided training in collaboration with the OIE and the Food and Agricultural Organization of the United Nations to a group of veterinarians from Chile, Colombia, and Mexico on how to provide emergency response to an outbreak of highly pathogenic avian influenza or foot-and-mouth disease.

One of APHIS' specific objectives to support U.S. exports is to reduce the remaining trade barriers related to avian influenza (AI). Several countries restrict U.S. exports of poultry, or poultry products, as a result of non-trade tariff

barriers. This includes sanitary and phytosanitary issues that APHIS addresses, as well as food safety issues that the Food Safety and Inspection Service addresses. Concerns over avian influenza (AI) and exotic newcastle disease have caused some countries to refuse U.S. imports of fresh, frozen, and chilled poultry. In FY 2015, the outbreak of highly pathogenic avian influenza (HPAI) significantly impacted the U.S. exports of poultry and poultry products. APHIS remains actively engaged with many countries to encourage removal of these restrictions as the HPAI outbreak is resolved. Over the course of the outbreak, 18 countries imposed restrictions on poultry and poultry products from the entire United States, 38 countries recognized the control measures taken during the outbreak and limited their restrictions to affected zones or States, and 100 other countries had no known restrictions established. By the end of FY 2015, APHIS was able to remove poultry bans from Vietnam, and for certain states shipping poultry and poultry products to Guatemala and Colombia. Also in FY 2015, APHIS co-hosted a conference with the U.S. poultry industry on avian Influenza and poultry trade that reviewed the risks of introduction of AI viruses through global trade in poultry and poultry products, and discussed appropriate measures to mitigate these risks.

APHIS also supports U.S. exporters through inspecting animals and shipments of agricultural products destined for export and certifying that they are free of certain pests or diseases (as required by many trading partners). In FY 2015, APHIS (and its State and county counterparts) issued more than 665,000 phytosanitary certificates and more than 275,000 animal and animal product export certificates. In FY 2016 and 2017, APHIS will work to improve the export customer experience through expanding electronic processing of export documentation and deploying the service center concept for meeting animal and animal product exporter's certification needs. These goals focus on streamlining the processes and paperwork that exporters need to move their products.

Performance Measure	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Target	2017 Target
Value of expanded and retained markets, new market access, and trade facilitated	$1.68 billion	$2.56 billion	$2.9 billion	$2.7 billion	$2.5 billion	$2.5 billion	$2.5 billion
Number of shipments released (in foreign ports of entry) as a result of APHIS intervention	300	324	279	273	293	300	300

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- Negotiated and resolved more than 171 SPS trade-related issues involving U.S. agricultural exports, with an estimated market value of $2.5 billion.
- Secured the release of 293 shipments of U.S. cargo held up at foreign ports-of-entry, which prevented the rejection of shipments worth more than $25 million.
- APHIS co-hosted a conference with the U.S. poultry industry on avian Influenza and poultry trade that reviewed the risks of introduction of AI viruses through global trade in poultry and poultry products, and discussed appropriate measures to mitigate these risks

Selected Accomplishments Expected at the FY 2017 Proposed Resource Level:

- Continue to resolve SPS trade-related issues involving U.S. agricultural exports to facilitate trade.
- Continue to provide the necessary documentation in support of U.S. cargo held up at foreign ports-of-entry.
- Work with partners and the U.S. poultry industry to develop strategies to engage remaining trading partners that continue to impose avian Influenza restrictions.

USDA Strategic Goals: Ensure That All of America's Children Have Access to Safe, Nutritious, and Balanced Meals. Assist Rural Communities to Create Prosperity So They Are Self-Sustaining, Repopulating, and Economically Thriving.

USDA Strategic Objectives: 1.1: Enhance rural prosperity, including leveraging capital markets to increase government's investment in rural America. 4.4: Protect agricultural health by minimizing major diseases and pets to ensure access to safe, plentiful, and nutritious food.

Agency Strategic Goal	Agency Objectives	Programs that Contribute	Key Outcome
Goal 6. Protect the health of U.S. agricultural resources by implementing surveillance, preparedness and response, and control programs.	Objective 6.1: Monitor the health of U.S. agricultural resources. Objective 6.2: Ensure effective preparedness and response systems. Objective 6.3: Ensure effective control, eradication, management, and enforcement programs. Objective 6.4: Manage conflicts caused by wildlife, detect and control wildlife diseases, and protect threatened and endangered species. Objective 6.5: Provide and coordinate timely diagnostic laboratory support and services.	• Animal Health Technical Services • APHIS Information Technology Infrastructure • Animal and Plant Health Regulatory Enforcement • Aquatic Animal Health • Avian Health • Buildings and Facilities • Cattle Health • Contingency Fund • Cotton Pests • Emergency Preparedness and Response • Equine, Cervids, and Small Ruminant Health • Field Crop and Rangeland Ecosystem Pests • National Veterinary Stockpile • Pest Detection • Specialty Crop Pests • Swine Health • Veterinary Biologics • Veterinary Diagnostics • Wildlife Damage Management • Zoonotic Disease Management	Reduce or mitigate the impact of agricultural pests and diseases as well as wildlife damage by providing tools and services—including diagnostic, detection, control, management, and enforcement methods and programs—to protect and enhance animal and plant health.

Key Outcome: Reduce or mitigate the impact of agricultural pests and diseases as well as wildlife damage by providing tools and services—including diagnostic, detection, control, management, and enforcement methods and programs—to protect and enhance animal and plant health.

APHIS' surveillance, preparedness and response, and control activities are designed to quickly detect and address destructive animal and plant pests and diseases and reduce and prevent billions of dollars in damage to agricultural resources each year. They not only ensure children and other consumers in the United States and across the world have access to safe and nutritious food; they also directly support farmers' efforts to export their products. Healthy farms and ranches and the robust agricultural exports help create a sustainable agricultural system and keep rural America thriving. Along with the programs discussed in the Agency's Goal 1, these efforts protect U.S. livestock, poultry, specialty crop, corn, cotton, and wheat industries worth approximately $195 billion.

The first component of APHIS' efforts, early detection, is critical to averting economic and environmental damage. Once a pest or disease becomes established or spreads, mitigation costs can reach millions of dollars and result in

substantial costs to producers and consumers, as well as irreversible damage to ecosystems. An article published in the Journal of Veterinary Diagnostics and Investigations estimated that a detection of FMD identified on day 7 would have an impact of $2.3 billion on the economy; if not identified until day 22, it could have an impact of $69 billion. In monitoring for potentially serious animal diseases, APHIS typically conducts more than 500,000 diagnostic tests per year on approximately 250,000 animal samples collected. In FY 2015, however, the Agency conducted more than 700,000 diagnostic tests on approximately 500,000 animal samples collected. These increases were primarily due to outbreaks of HPAI and Swine Enteric Coronavirus Disease in FY 2014 and 2015. To bolster surveillance efforts, APHIS continues to implement the animal disease traceability program that would allow affected animals to be found quickly in the event of an outbreak. APHIS conducts early detection plant pest and disease surveys—targeting various fruit, vegetable, and honey bee pests—in cooperation with all 50 States, 3 Territories, Tribal and local governments, industry partners, and other stakeholders. In FY 2015, the Agency targeted 118 high-risk pests of national concern for survey in corn, oak, pine, small grains, soybean, and nursery crop commodities, as well as exotic wood boring bark beetles and cyst nematodes, among others.

An example of the necessity for early detection and containment mechanisms is this year when APHIS took the lead in responding to the HPAI outbreak, the largest animal health emergency in U.S. history. HPAI findings occurred in commercial premises, backyard flocks, captive wild birds and/or wild birds, with 21 states affected and close to 50 million commercial birds depopulated to control the disease. The APHIS response team worked diligently to contain and eradicate the disease, safely dispose of infected materials and ensure the virus was eliminated at affected farms so they could safely return to production. Throughout the experience, the Agency altered and improved its response capabilities and processes in real time to provide the most effective services possible. APHIS's response team reached 3,200 individuals at its largest point, including Federal employees, State employees and contractors. The Agency's actions were essential to maintaining the vitality of the country's poultry industry, especially the turkey and egg layer segments who were hit hard in this outbreak. APHIS was also able to maintain over $10 billion in poultry export markets placed at risk by the HPAI findings. Though full recovery will take some time, the industry is rebounding nicely and is working jointly with APHIS and State animal health officials to enhance biosecurity practices to better protect against HPAI viruses in the future. APHIS is requesting additional resources in FY 2017 to expand and enhance emergency response capabilities in the future.

APHIS also works closely with its State counterparts to address ongoing pest and disease issues and has longstanding partnerships with industry groups. In FY 2014, APHIS and other USDA agencies strengthened their partnerships with the citrus industry and citrus-producing States through the establishment of the Huanglongbing (HLB) Multi-Agency Coordination (MAC) Group. HLB, or citrus greening, is a devastating disease that threatens continued citrus production in the United States unless new tools are found to combat it. In addition to APHIS, the MAC is made up of USDA's Agricultural Research Service, National Institute of Food and Agriculture, and Risk Management Agency; the Environmental Protection Agency; State departments of agriculture in Florida, Arizona, California, and Texas; and citrus industry organizations in Florida, California, and Texas. The MAC Group is coordinating efforts to identify and support promising tools and solutions that citrus growers can use against HLB, or citrus greening, in the short term, while research continues into long-term solutions. Using $20 million in 2-year funding provided by the FY 2014 Appropriations Act, the HLB MAC group funded more than 30 projects in FY 2014-2015 that were carried out by State cooperators, universities, private companies, and Federal agencies. One of the first projects to get underway involved increasing production and release of biological control agents to control the Asian citrus psyllid (which is a vector for HLB). APHIS and cooperators are increased the number of biological control agents reared and released from approximately 4 million per year in FY 2014 to more than 8 million in FY 2015, with a goal of rearing 12 million per year by the end of FY 2016. The program plans to continue this level in FY 2017 and beyond. The program also funded projects to improve methods of providing thermotherapy to HLB-infected trees as well as delivery of thermotherapy on a grove scale. Trees treated with thermotherapy have shown they can regain productivity for at least four years after reducing the amount of HLB in the tree. Several growers have used the thermotherapy model built through an HLB MAC project to build machines for use in their own groves. Several commercial firms are also using this technology to offer thermotherapy as a business service. Other tools in development include the use of antimicrobials to treat HLB infected trees, development of HLB-tolerant rootstock, best management practices to keep groves productive, and new detection techniques for finding HLB infected trees as early as possible, among others.

Diseases and pests found in wild animals can be transmitted to agricultural animals as well. For instance, feral swine can host more than 30 pathogens and parasites including foreign animal diseases, FMD, and classical swine fever (CSF), while bison can carry brucellosis. Feral swine have quickly established themselves throughout the nation, increasing from 1 million animals in 17 States to about 5 million animals in at least 39 States in the last 20 years. In 2014, APHIS implemented a National Feral Swine Damage Management program, designed to reduce the damage and risk to agriculture, natural resources, property and animal and human health in the United States. This program is a cooperative cost-share program, and together with our partners, APHIS will slow – and eventually stop – the leading edges of population spread; eliminate swine populations where possible; and control swine numbers to achieve acceptable levels in other States. In FY 2015, the Agency made significant progress in implementing the program including developing State-level management control plans that balance the individual needs of States with the national strategy; entering into cooperative agreements to conduct feral swine removal and disease monitoring on 130 million acre; and, collecting 2,800 feral swine disease samples. Where there are relatively low numbers of feral swine, the program has been able to largely eliminate these animals in order to stop their expansion. Currently Washington, Idaho, New York, and Maryland are believed to be free of feral swine; however, the Agency will continue to monitor these States for feral swine damage to make sure the pigs do not become reestablished. In States with larger populations, the program focuses on the areas where property or agricultural damage is extreme or where pigs threaten human populations (e.g., urban and suburban areas). The goal in these areas is to stop the most significant types of damage in concentrated areas. Farmers in a few targeted locations have announced they are resuming previous farming practices that had been previously abandoned due to extensive feral swine damage. The Agency will continue these efforts in FY 2017.

To support these pest and disease detection and management programs, APHIS coordinates diagnostic laboratory support and services. The Agency and its partners in the National Animal Health Laboratory Network (NAHLN) test animals for endemic and suspected foreign animal diseases. The NAHLN consists of 58 State and university laboratories in 42 States, as well as 4 Federal laboratories. The network laboratories perform approximately 300,000 diagnostic tests to support APHIS' animal health surveillance programs. To increase diagnostic capacity for high-risk plant pathogens, APHIS provides training and accreditation services to support to the National Plant Diagnostic Network (NPDN), working with USDA's National Institute of Food and Agriculture. APHIS has reviewed quality management standards for and accredited 37 NPDN labs to perform high-risk disease testing.

KEY PERFORMANCE MEASURE:

4.4.1 Value of livestock, poultry, and specialty crops protected by APHIS animal health and specialty crop pests programs

Fiscal Year	Actual				Target	Actual	Result	Target	Target
	2011	2012	2013	2014	2015			2016	2017
Value in billions	$165	$165	$165	$191	$193	$193	Met	$193	$193
Funding in thousands	$372,136	$349,950	$319,340	$338,090	$344,590			$332,108	$334,303

Allowable Data Range for Met: The allowable data range for the aggregate value of protected agricultural resources is estimated to be between $181 billion to $200 billion to be considered met. Any value below that is unmet and any value above that is exceeded.

Assessment of Performance Data

Data Source – Data for the measure are derived from USDA's National Agricultural Statistics Service (NASS) reports and publications, including results and analysis of the Census of Agriculture conducted every 5 years. The aggregate value of protected agricultural resources fluctuates every year due to the size and scope of pest/disease outbreaks and the annual price levels of resources. A reasonable data range is determined to account for the fluctuations that can occur.

Completeness of Data – The value of specialty crops directly protected by Agency programs is based on the value of crops produced in counties in which programs are operating. Because animal health programs protect U.S. animal health across the country through national surveillance efforts, national values are included for livestock and poultry. USDA economists document the results so that it can be calculated using the same methodology and references each year.

Reliability of Data – The widespread voluntary participation in surveys, supplemented by crop observations and measurements, makes NASS a statistically sound source of agricultural data. This data is reliable.

Quality of Data – NASS has quality control, data integrity, and security measures in place to ensure reliability of data. NASS surveys include data provided voluntarily by thousands of farmers and agribusinesses. This is quality data.

Analysis of Results

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- Successfully addressed the highly pathogenic avian influenza outbreak in 2015, the largest animal health outbreak in history.
- In FY 2015, USDA addressed twelve exotic fruit fly outbreaks in California, Texas, Florida, and Puerto Rico, and assisted the Dominican Republic with eradication efforts of a large Mediterranean fruit fly (Medfly) outbreak in that country.
- Since initiating this program in FY 2010, USDA has removed more than 80 percent of the quarantined area from regulation based on successful European grapevine moth (EGVM) eradication efforts.

Selected Accomplishments Expected at the FY 2017 Proposed Resource Level:

- USDA will greatly improve its capacity by hiring emergency responders to address animal health events, minimize impacts to these industries, and ensure an abundant, nutritious food supply for the American public, with additional funding requested in the budget.
- USDA will continue monitoring for exotic fruit flies and EGVM and will address any new detections of these pests in FY 2017 to protect specialty crop production.

Additional Performance Information

Performance Measure	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Target	2017 Target
Percent of States and Tribes receiving cooperative agreement funds that have a current strategic plan for animal disease traceability	N/A	N/A	75%	89%	100%	100%	100%
Percent of high-risk plant pests (as identified on the Priority Pest List) for which early detection surveys were conducted in the United States	86%	79%	86%	88%	93%	93%	93%
Production value of cotton directly protected by APHIS' cotton pest programs	N/A	$1.7 billion	$1.7 billion	$1.7 billion	$2.06 billion	$2.06 billion	$2.06 billion

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- At the end of FY 2015, 100 percent of States receiving cooperative agreement funds had an ADT strategic plan in place, compared with 89 percent at the end of FY 2014.
- Established the HLB MAC and supported more than 30 projects to develop or enhance tools to combat HLB or the ACP in citrus groves.
- Implemented a National Feral Swine Damage Management program in 41 States, through a cooperative approach to manage or eliminate populations of feral swine that damage agriculture, natural resources, and property, and that threaten human health and safety.

Selected Accomplishments Expected at the FY 2017 Proposed Resource Level:

- Monitor for diseases in wild animals such as pseudorabies, swine brucellosis, CSF, and Trichinella.
- Continue development and implementation of new tools to combat HLB and support continued citrus production in the United States.
- Continue enhancing swine surveillance capabilities to ensure that outbreak of new and emerging diseases can be detected quickly.

Strategic Goal Funding Matrix
(Dollars in thousands)

Program / Program Items	2014 Actual	2015 Actual	2016 Enacted	Increase or Decrease	2017 Estimate
Department Strategic Goal 1: Assist rural communities to create prosperity so they are self-sustaining and economically thriving.					
Department Objective 1.1: Enhance rural prosperity, including leveraging capital markets to increase government's investment in rural America.					
Animal Welfare	$28,010	$28,010	$28,410	+$286	$28,696
Staff Years	218	218	220	+12	232
Horse Protection	697	697	697	+8	705
Staff Years	6	6	6	-	6
Wildlife Damage Management	87,868	90,388	101,547	-15,156	86,391
Staff Years	620	620	628	-70	558
Wildlife Services Methods Development	19,020	19,102	19,147	+214	19,361
Staff Years	163	163	163	-38	125
Total Cost, Strategic Goal	135,595	138,197	149,801	-14,648	135,153
Staff Years, Strategic Goal	1,007	1,007	1,017	-96	921
Department Strategic Goal 2: Ensure our National forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing our water resources.					
Department Strategic Objective 2.1: Improve the health of the nation's forests, grasslands, and working lands by managing our natural resources.					
Tree & Wood Pests	72,668	58,057	57,690	-8,067	49,623
Staff Years	319	319	319	-18	301
Field Crop & Rangeland Ecosystems Pests (Grasshopper)	5,833	5,833	5,833	+52	5,885
Staff Years	39	39	39	+11	50
Total Cost, Strategic Goal	78,501	63,890	63,523	-8,015	55,508
Staff Years, Strategic Goal	358	358	358	-7	351
Department Strategic Goal 3: Help America promote agricultural production and biotechnology exports as America works to increase food security.					
Department Strategic Objective 3.2: Enhance America's ability to develop and trade agricultural products derived from new and emerging technologies					
Agriculture Import/Export	14,099	14,099	15,099	+4,652	19,751
Staff Years	92	92	94	-10	84
Biotechnology Regulatory Services	18,135	18,875	18,875	+121	18,996
Staff Years	92	92	92	+4	96
Overseas Technical & Trade Operations	20,114	22,114	22,114	+113	22,227
Staff Years	76	86	86	-31	55
Total Cost, Strategic Goal	52,348	55,088	56,088	+4,886	60,974
Staff Years, Strategic Goal	260	270	272	-37	235

Program / Program Items	2014 Actual	2015 Actual	2016 Enacted	Increase or Decrease	2017 Estimate
Department Strategic Goal 4: Ensure that all of America's children have access to safe, nutritious, and balanced meals.					
Department Strategic Objective 4.4: Protect agricultural health by minimizing major diseases and pets to ensure access to safe, plentiful, and nutritious food.					
Agricultural Quarantine Inspection (Appropriated)	26,900	26,900	27,900	+1,927	29,827
Staff Years	360	360	369	+3	372
Animal and Plant Health Regulatory Enforcement	16,224	16,224	16,224	+186	16,410
Staff Years	142	142	142	-26	116
Animal Health Technical Services	41,048	42,174	43,920	+1,404	45,324
Staff Years	64	64	74	+92	166
APHIS Info. Technology Infrastructure	4,513	4,581	4,889	-349	4,540
Staff Years	-	-	-	-	-
Aquatic Animal Health	2,253	2,253	2,253	+29	2,282
Staff Years	22	22	22	-9	13
Avian Health	63,999	67,607	63,260	+2,257	65,517
Staff Years	196	196	201	+51	252
Buildings & Facilities	6,027	4,659	5,282	+175	5,457
Staff Years	-	-	-	-	-
Cattle Health	94,096	95,631	96,703	+715	97,418
Staff Years	557	557	551	-78	473
Contingency Fund	3,976	4,532	2,624	-1,524	1,100
Staff Years	10	8	8	-	8
Cotton Pests	14,823	14,512	14,519	-5,230	9,289
Staff Years	60	61	61	-7	54
Emergency Preparedness & Response	16,966	16,966	16,966	+27,189	44,155
Staff Years	90	90	90	+117	207
Equine, Cervid, and Small Ruminant Health	21,531	20,502	19,532	+358	19,890
Staff Years	120	120	120	-	120
Field Crop & Rangeland Ecosystems Pests	5,303	5,658	5,377	-461	4,916
Staff Years	21	21	21	+8	29
Rental and DHS Security Payments	-	42,567	42,567	-	42,567
Staff Years	-	-	-	-	-
National Veterinary Stockpile	7,208	8,703	9,598	+1,309	10,907
Staff Years	2	2	3	+6	9
Pest Detection	27,446	27,446	27,446	+190	27,636
Staff Years	145	145	145	+45	190
Physical/Operational Security	5,146	5,146	5,146	-	5,146
Staff Years	-	-	-	+5	5
Plant Protection Methods Development	20,549	20,686	20,686	+184	20,870
Staff Years	141	141	141	-10	131
Specialty Crop Pests	168,507	183,946	183,979	-11,924	172,055
Staff Years	693	690	703	+30	733
Swine Health	22,250	24,250	24,800	+171	24,971
Staff Years	120	128	130	+16	146
Veterinary Biologics	16,417	16,417	16,417	+143	16,560
Staff Years	109	109	109	-8	101
Veterinary Diagnostics	31,540	31,540	36,540	-4,697	31,843
Staff Years	190	190	190	-39	151
Zoonotic Disease Management	9,523	9,523	9,523	+10,000	19,523
Staff Years	45	45	45	+19	64
General Provision	20,000	-	5,500	-	-
Total Cost, Strategic Goal	646,245	692,423	701,651	+22,052	718,203
Staff Years, Strategic Goal	3,087	3,091	3,125	+215	3,340
Total Cost, All Strategic Goals	912,689	949,597	971,063	-1,225	969,838
Total Staff Years, All Strategic Goals	4,712	4,726	4,772	+75	4,847

Full Cost by Department Strategic Goals
(On basis of appropriated funds)
(Dollars in thousands)

Department Strategic Goal 1: Assist rural communities to create prosperity so they are self-sustaining, repopulating, and economically thriving.

Program/Programs Items - Discretionary		2014 Actual	2015 Actual	2016 Enacted	2017 Estimate
Animal Welfare		$22,880	$22,968	$23,296	$23,531
Horse Protection		563	558	572	578
Wildlife Damage Management		71,252	73,793	82,882	70,454
Wildlife Services Methods Development		15,369	15,437	15,462	15,637
Program Operational Costs		13,422	13,751	14,904	13,439
Indirect Costs		10,738	11,001	11,923	10,751
	Total Discretionary Costs for Strategic Goal 1	134,225	137,507	149,038	134,390
	FTEs	918	894	1,017	921
Performance Measure:	Animal Welfare: Percent of licensees inspected and registrants in substantial compliance of the Animal Welfare Act	96%	95%	96%	96%
Performance Measure:	Animal Welfare: Percent of facilities determined to be in substantial compliance at the first unannounced inspection after receiving a license (conducted 6-9 months later)	63%	95%	95%	95%

Department Strategic Goal 2: Ensure our National forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing our water resources.

Program/Programs Items - Discretionary		2014 Actual	2015 Actual	2016 Enacted	2017 Estimate
Tree & Wood Pests		57,466	45,150	44,280	38,157
Field Crop & Rangeland Ecosystems Pests (Grasshopper)		3,676	4,045	3,799	3,842
Program Operational Costs		7,456	5,999	5,863	5,122
Indirect Costs		5,965	4,800	4,691	4,097
	Total Discretionary Costs for Strategic Goal 2	74,564	59,994	58,633	51,218
	FTEs	333	298	358	351
Performance Measure:	Acreage protected by the Tree & Wood Pest Programs (area outside of quarantine)	596 million acres	596 million acres	596 million acres	596 million acres
Performance Measure:	Value of forest products and ecosystem services protected (based on acreage protected)	$1.19 trillion	$1.19 trillion	$1.19 trillion	$1.19 trillion
Performance Measure:	Rangeland acreage protected by APHIS' grasshopper program	661 million acres	661 million acres	661 million acres	661 million acres
Performance Measure:	Value of rangeland protected by APHIS' grasshopper program	$8.78 billion	$8.78 billion	$8.78 billion	$8.78 billion

Department Strategic Goal 3: Help America promote agricultural production and biotechnology exports as America works to increase food security.

Program/Programs Items - Discretionary		2014 Actual	2015 Actual	2016 Enacted	2017 Estimate
Agriculture Import/Export		11,473	11,479	12,381	16,196
Biotechnology Regulatory Services		13,829	15,441	15,478	15,577
Overseas Technical & Trade Operations		16,443	18,021	18,133	18,226
Program Operational Costs		5,091	5,481	5,609	6,097
Indirect Costs		4,073	4,385	4,487	4,878
	Total Discretionary Costs for Strategic Goal 3.....	50,908	54,806	56,088	60,974
	FTEs.....	246	235	272	235
Performance Measure:	Cumulative number of actions taken by USDA to deregulate biotechnology products based on the scientific determination that they do not pose a plant pest risk to agriculture	109	117	122	126
Performance Measure:	Percent of field release sites in compliance with biotechnology regulations designed to protect agriculture from plant pests	99%	96%	99%	90%
Performance Measure:	Average number of days to issue a product license for veterinary biologics	347 days	340 days	340 days	340 days

Department Strategic Goal 4: Ensure that all of America's children have access to safe, nutritious, and balanced meals.

Program/Programs Items - Discretionary	2014 Actual	2015 Actual	2016 Enacted	2017 Estimate
Agricultural Quarantine Inspection (Appropriated).....	21,904	22,017	22,878	24,458
Animal and Plant Health Regulatory Enforcement.....	13,204	13,299	13,304	13,456
Animal Health Technical Services.....	28,295	28,118	28,905	30,640
APHIS Info. Technology Infrastructure.....	4,182	3,944	4,600	4,331
Aquatic Animal Health.....	1,792	1,805	1,847	1,871
Avian Health.....	41,206	49,233	43,739	43,950
Cattle Health.....	74,387	74,147	75,030	75,616
Contingency Fund.....	-	1,951	1,640	615
Cotton Pests.....	10,075	9,898	11,070	7,027
Emergency Preparedness & Response.....	13,786	13,849	13,912	36,207
Equine and Cervid Health.....	16,721	17,070	15,826	15,490
Field Crop & Rangeland Ecosystems Pests (Excluding Grasshopper).....	3,453	3,473	3,836	3,868
National Veterinary Stockpile.....	2,636	2,560	3,619	5,513
Pest Detection.....	22,350	21,686	22,506	22,662
Physical/Operational Security.....	4,209	4,220	4,220	4,220
Plant Protection Methods Development.....	16,537	16,962	16,963	17,113
Specialty Crop Pests.....	118,067	134,027	129,560	126,342
Swine Health.....	18,078	19,880	20,336	20,476
Veterinary Biologics.....	13,320	13,446	13,462	13,579
Veterinary Diagnostics.....	25,863	25,846	29,963	26,111
Zoonotic Disease Management.....	7,759	7,804	7,809	16,009
Buildings & Facilities.....	4,662	4,435	6,581	3,000
Rental and DHS Security Payment.....	-	42,567	42,567	42,567
General Provision748.....	4,260	15,738	-	-
General Provision764.....	-	-	1,000	4,500
Program Operational Costs.....	55,322	58,694	58,588	61,613
Indirect Costs.....	44,258	46,955	46,871	49,290
Total Discretionary Costs for Strategic Goal 4.....	566,326	653,622	640,631	670,525
FTEs.....	2,916	2,922	3,097	3,296

Program/Programs Items - Discretionary		2014 Actual	2015 Actual	2016 Enacted	2017 Estimate
Performance Measure:	Percent of States and Tribes receiving cooperative agreement funds that have a current strategic plan for animal disease traceability	89%	100%	100%	100%
Performance Measure:	Percent of high-risk plant pests (as identified on the Priority Pest List) for which early detection surveys were conducted in the United States	88%	93%	93%	93%
Performance Measure:	Value of livestock, poultry, and specialty crops protected by APHIS animal health and specialty crop pests programs	$191 billion	$193 billion	$193 billion	$193 billion
Performance Measure:	Production value of cotton directly protected by APHIS' cotton pest programs	$1.7 billion	$2.06 billion	$2.06 billion	$2.06 billion
Performance Measure:	Export losses prevented by the APHIS Screwworm program on an annual basis	$53 million	$54 million	$54 million	$54 million
Performance Measure:	Number of sterile Medfly pupae produced weekly	1 billion	1 billion	1 billion	1 billion
Performance Measure:	Percent of cattle fever tick outbreaks occurring outside the quarantine zone eliminated in less than 12 months	100%	100%	100%	100%

Program/Programs Items - Mandatory	2014 Actual	2015 Actual	2016 Enacted	2017 Estimate
AQI User Fees	193,890	199,283	210,000	212,000
Farm Bill: 10007 - Consolidated Plant Pest & Disease Mgt. & Disaster Prevention Programs	57,286	57,657	58,327	62,500
Trust Funds	7,807	10,352	9,000	9,000
Foreign Service National Separation Liability Trust Fund	-	673	500	500
Program Operational Costs	-	-	-	-
Indirect Costs	-	-	-	-
Total Mandatory Costs for Strategic Goal 4	258,984	267,965	277,827	284,000
FTEs	1,165	1,180	1,315	1,315

Performance Measure:	Value of expanded and retained markets, new market access, and trade facilitated	$2.7 billion	$2.5 billion	$2.5 billion	$2.5 billion
Performance Measure:	Number of shipments released (in foreign ports of entry) as a result of APHIS intervention	273	293	300	300
	Subtotal, Salaries & Expenses Discretionary	821,361	901,495	897,809	914,107
	Subtotal, Buildings & Facilities	4,662	4,435	6,581	3,000
	Total Discretionary Request	826,023	905,930	904,390	917,107
	FTEs	4,413	4,349	4,744	4,803