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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 5,395 permanent full-time employees and 2,074 other than permanent full-time employees as of September 30, 2014. Of the total, 1,157 full-time employees were located at headquarters. APHIS manages programs on a national basis through 2 regional offices and 436 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 2014 – 2015 include those listed below.

OIG Reports – Completed

#33601-12-CH	Effectiveness of the Smuggling, Interdiction, and Trade Compliance (SITC) Unit – Report issued in August 2012. As of April 24, 2014, all 13 APHIS Recommendations have been implemented.
#33601-01- 41	APHIS Oversight of Research Facilities. OIG Report issued December 11, 2014 with 15 Recommendations. APHIS will have until December 2015 to implement the Recommendations.
#33601-01- 23	Plant Protection and Quarantine Preclearance Program. OIG Report issued November 2014 with 16 Recommendations. APHIS has until December 2015 to implement Recommendations.
#33601-11-CH	USDA's Controls Over Animal Import Centers. Report issued August 2010. All 12 APHIS recommendations have been implemented, as of June 14, 2014.
#33701-01-AT	Follow-up on APHIS' Implementation of the Select Agent or Toxin Regulations – Report issued on November 2012. As of March 5, 2014, all 12 APHIS recommendations have been implemented.

OIG Audits – In Progress

#33601-02-41	APHIS Wildlife Services – Wildlife Damage Management Start Date – Audit started December 5, 2013, and still is ongoing.
#50601-01-32	Controls Over APHIS' Introduction of Genetically Engineered Organisms – Audit started November 22, 2013. Audit is still ongoing.
#50601-04-31	USDA Response to Antibiotic Resistance - Audit started October 2, 2014. Audit is still ongoing.

GAO Reports – Completed

#361161	Horse Welfare - Audit report issued June 2011. 4 recommendations for APHIS are being implemented.
#361330	Agricultural Quarantine Inspections – Report issued in September 2012. 3 recommendations for APHIS are being implemented.
#440936	Training of Customs of CBP Officers – Audit started on November 24, 2010.

GAO Audits – In Progress

# 361617	Aquatic Invasive Species. Audit started October 28, 2014. Audit still ongoing.
# 321050	Cargo Preferences for Food Aid. Audit started October 15, 2014. Audit still ongoing.
# 361569	Climate Change and Public Health. Audit started July 17, 2014. Audit still ongoing.
# 361615	Emerging Swine Diseases. Audit started October 15, 2014. Audit still ongoing.
# 441231	Evolution of the National Biosurveillance Integration Center (NBIC). Audit started June 17, 2014. Audit still ongoing.

# 361560	Executive Branch Efforts to Address Fragmentation in Federal Oversight of Food Safety. Audit started March 18, 2014. Audit still ongoing.
# 361600	Federal Actions to Promote Bee Health. Audit started September 24, 2014. Audit still ongoing.
# 361562	Federal Veterinarian Workforce. Audit started February 25, 2014. Audit still ongoing.
# 361589	Genetically Engineered Crops. Audit started November 4, 2014. Audit still ongoing.

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

Item	2013 Actual		2014 Actual		2015 Enacted		2016 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Salaries and Expenses:								
Discretionary Appropriations	$758,519	4,617	$821,721	4,695	$871,315	4,713	$855,803	4,706
Citrus Greening…a/	-	-	20,000	-	-	-	-	-
Sub-Total Disc Funding	758,519	4,617	841,721	4,695	871,315	4,713	855,803	4,706
Mandatory Appropriations: Farm Bill	47,450	15	58,900	15	57,938	15	62,500	15
Agricultural Quarantine Inspection User Fees:								
Total Collections	566,055	1,121	588,073	1,121	612,323	1,250	748,373	1,250
Buildings and Facilities:								
Discretionary Appropriations	2,928	-	3,175	-	3,175	-	3,175	-
Trust Funds:								
Mandatory Funding	13,071	50	8,618	50	8,904	50	9,000	50
Transfers In	-	-	-	-	-	-	-	-
Transfers Out	-366,370	-	-362,526	-	-374,763	-	-515,810	-
Adjusted Appropriations	1,021,653	5,803	1,137,961	5,881	1,178,892	6,028	1,163,041	6,021
Balance Available, SOY	208,559	141	225,642	222	287,393	245	276,157	225
Other Adjustments (NET)	24,161	-	32,467	-	-	-	-	-
Total Available	1,254,373	5,944	1,396,070	6,103	1,466,285	6,273	1,439,198	6,246
Lapsing Balances	-5,729	-	-4,812	-280	-	-	-	-
Balance Available, EOY	-225,642	-222	-287,393	-245	-276,157	-225	-302,573	-222
Subtotal Obligations, APHIS	1,023,002	5,722	1,103,865	5,578	1,190,128	6,048	1,136,625	6,024
Obligations under other USDA appropriations:								
Agricultural Marketing Service:								
for administrative and technical support	7,506	-	7,276	-	7,312	-	7,327	-
Agricultural Research Service:								
for administrative and technical support	4,337	-	3,995	-	4,015	-	4,023	-
Departmental Administration	1	-	-	-	-	-	-	-
Farm Service Agency:								
for administrative and technical support	25	-	-	-	-	-	-	-
Food Safety Inspection Service								
for administrative and technical support	487	-	418	-	420	-	421	-
Food & Nutrition Service:								
for administrative and technical support	13	-	-	-	-	-	-	-
Foreign Agricultural Service:								
for administrative and technical support	4,528	-	3,675	-	3,693	-	3,700	-
Forest Service:								
for administrative and technical support	463	-	612	-	615	-	616	-
Grain Inspection Service:								
for administrative and technical support	1,592	-	1,594	-	1,602	-	1,605	-
National Appeals Divison:								
for administrative and technical support	16	-	10	-	10	-	10	-
National Institute of Food and Agriculture:								
for administrative and technical support	202	-	-	-	-	-	-	-
Natural Resource Conservation Service								
for administrative and technical support	2,175	-	-	-	-	-	-	-
Office of Departmental Management								
for administrative and technical support	90	-	-	-	-	-	-	-
Office of Budget and Program Analysis								
administrative and technical support	-	-	32	-	32	-	32	-
Office of the Secretary:								
administrative and technical support	154	-	-	-	-	-	-	-
Rural Development:								
administrative and technical support	-	-	6	-	6		6	-
Total, Agriculture Appropriations	21,589	-	17,618	-	17,705	-	17,740	-

Item	2013 Actual		2014 Actual		2015 Enacted		2016 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Other Federal Funds:								
DOD, U.S. Air Force	5,874	-	7,040	-	7,075	-	7,089	-
DOD, U.S. Coast Guard	-	-	36	-	36	-	36	-
DOD, Air National Guard	2,702	-	2,248	-	2,259	-	2,264	-
DOD, U.S. Navy	3,706	-	4,907	-	4,932	-	4,942	-
DOD, U.S. Marine Corps	378	-	796	-	800	-	802	-
DOD, U.S. Army	822	-	771	-	775	-	777	-
DOD, U.S. Army Corp of Engineers	1,379	-	1,108	-	1,114	-	1,116	-
DOD, Defense Finance and Accounting Services	477	-	1,053	-	1,058	-	1,060	-
Department of Energy	232	-	136	-	137	-	137	-
Department of Health and Human Services	260	-	10	-	10	-	10	-
DHS: for AQI and other services and support	1,167	-	1,339	-	1,346	-	1,349	-
Federal Emergency Management Agency	77	-	-	-	-	-	-	-
NASA, National Aeronautics and Space Administration	396	-	351	-	353	-	354	-
USDOI, Geological Survey, National Park Service, Office of Insular Affairs	1,108	-	1,396	-	1,403	-	1,406	-
USDOI, Bureau of Land Management & Reclamation: for administrative and technical support	412	-	26	-	26	-	26	-
USDOI, Fish and Wildlife Services: for natural resources and endangered species	2,006	-	2,299	-	2,310	-	2,315	-
USDOT, Federal Aviation Administration	1,140	-	1,463	-	1,470	-	1,473	-
Department of State: for miscellaneous services	298	-	363	-	365	-	366	-
EPA, IACB: for miscellaneous services	855	-	935	-	940	-	942	-
GSA: for miscellaneous services	55	-	2	-	2	-	2	-
Other Federal Funds	229	359	193	380	194	380	194	380
Total, Other Federal Funds	23,574	359	26,472	380	26,605	380	26,658	380
Non-Federal Funds:								
Funds from States and local entities for wildlife services support	46,807	575	50,768	601	51,022	604	51,124	604
Import-Export User Fees	39,876	326	43,947	320	44,167	323	44,256	323
Phytosanitary Certificate User Fees	16,158	86	17,858	95	17,947	95	17,983	95
Reimburseable Overtime	8,569	74	6,615	80	6,648	80	6,661	80
Veterinary Diagnostics User Fees	5,586	29	5,292	57	5,318	57	5,329	57
Other User Fees	1	-	-	-	-	-	-	-
Non-Federal	201	-	737	-	741	-	742	-
Subtotal, Reimburseable Salaries and Expenses	162,360	1,449	169,307	1,533	170,153	1,539	170,494	1,539
Total Obligations, Animal and Plant Health Inspection Service	$1,185,362	7,171	$1,273,172	7,111	$1,360,281	7,587	$1,307,119	7,563

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.

Permanent Positions by Grade and Staff Year Summary

Item	2013 Actual			2014 Actual			2015 Enacted			2016 Estimate		
	Hdqts	Field	Total	Hdqts	Field	Total	Hdqts	Field	Total	Hdqts	Field	Total
Senior Executive Service.....	27	11	38	29	10	39	29	10	39	29	10	39
GS-15……	60	57	117	66	52	118	66	52	118	66	52	118
GS-14……	289	250	539	306	273	579	311	268	579	311	270	581
GS-13……	258	449	707	259	452	711	264	452	716	264	459	723
GS-12……	188	886	1,074	193	911	1,104	208	911	1,119	210	915	1,125
GS-11……	84	818	902	89	823	912	102	829	931	105	835	940
GS-10……	2	7	9	2	7	9	2	7	9	2	7	9
GS-09……	86	395	481	83	416	499	85	428	513	85	437	522
GS-08……	6	255	261	5	257	262	5	257	262	5	261	266
GS-07……	81	472	553	82	473	555	82	473	555	82	477	559
GS-06……	12	234	246	6	241	247	6	244	250	6	246	252
GS-05……	5	169	174	4	174	178	4	174	178	4	176	180
GS-04……	6	30	36	9	28	37	9	30	39	9	30	39
GS-03……	-	4	4	3	4	7	3	4	7	3	4	7
GS-02……	1	4	5	-	1	1	-	1	1	-	1	1
Other Graded Positions.....	23	130	153	21	116	137	21	116	137	21	116	137
Total Perm. Employment EOY.....	1,128	4,171	5,299	1,157	4,238	5,395	1,197	4,256	5,453	1,202	4,296	5,498
Unfilled Positions EOY.....	29	106	135	34	119	153	25	88	113	23	80	103
Total Permanent Positions.....	1,157	4,277	5,434	1,191	4,357	5,548	1,222	4,344	5,566	1,225	4,376	5,601
Staff Year Estimate.....	1,395	5,776	7,171	1,384	5,727	7,111	1,476	6,111	7,587	1,472	6,091	7,563

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 most instances, using Government-Owned Vehicles is more cost effective than either leasing or using privately-owned vehicles. To maximize the life span of the 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. These periodic maintenance surveys and review of the 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. As a result of a reduced budget in recent years, programs have extended their normal replacement cycle. 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 2014, APHIS initiated two new programs that had significant vehicle requirements (67 vehicles required in total). We were able to meet this need and still achieve a 13 vehicle reduction to our overall fleet by continuing efforts to right-size the Agency's fleet, including the identification and transfer of underutilized and non-functioning vehicles.

Planned changes to the motor vehicle fleet. For FY 2016, APHIS will reduce the size of its motor vehicle fleet by a total of 26 vehicles. Specifically, we expect to reduce the number of: sedans/station wagons by 1; light duty trucks by 14; and vans by 8; sport utility vehicles by 6, while increasing the number of heavy duty trucks by 3.

Replacement of passenger motor vehicles. For FY 2016, the Agency proposes replacing 20 of the 289 vehicles currently in the Agency fleet that are used by APHIS' technical personnel 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.

1) APHIS converted to the new fleet cards in FY 2014 and has increased the accuracy of its reporting as a result.
2) APHIS has begun implementation of a new fleet management system and expects to complete the implementation during FY 2015.

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					
2013	307	207	1,029	394	2,315	0	402	14	4,668	16,692
Change	-7	-11	-2	-38	-47	0	+92	0	-13	-1,606
2014	300	196	1,027	356	2,268	0	494	14	4,655	15,086
Change	-11	-8	-6	-7	-38	0	-13	0	-83	-348
2015	289	188	1,021	349	2,230	0	481	14	4,572	14,738
Change	-1	-8	-6	-7	-7	0	0	+3	-26	+900
2016	288	180	1,015	342	2,223	0	481	17	4,546	15,638

* 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 from attacking agricultural crops; and alleviate or control wildlife damage to agricultural products. Some are also used to monitor contract aircraft.

The Appropriations Act provides APHIS with authority to replace aircraft; however, the Agency only 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 60 aircraft used for the wildlife damage management programs. Of the 60 aircraft used for the wildlife damage management programs: 51 are owned, (9 are non-operational), 5 are borrowed from state cooperators; and 4 are rented. APHIS uses the non-operational aircraft for parts and plans to dispose of at least 5 of the non-operational planes in FY 2015.

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), [$871,315,000] $855,803,000, of which [$470,000] $471,000, 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] $8,194,000 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] $35,357,000, to remain available until expended, shall be for Animal Health Technical Services; of which [$697,000] $706,000 shall be for activities under the authority of the Horse Protection Act of 1970, as amended (15 U.S.C. 1831); of which [$52,340,000] $52,395,000, 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 [$156,000,000] $145,182,000, to remain available until expended, shall be for specialty crop pests; of which, [$8,826,000] $8,876,000, to remain available until expended, shall be for field crop and rangeland ecosystem pests; of which [$54,000,000] $45,519,000, to remain available until expended, shall be for tree and wood pests; of which [$3,973,000] $3,722,000, to remain available until expended, shall be for the National Veterinary Stockpile; of which $6,942,000, 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 $1,500,000, 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 four, 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 [2015] 2016, 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.

The first change is for the purpose of identifying funds that will be used to implement the Lacey act.

Salaries and Expenses

Lead-off Tabular Statement - Current Law

Budget Estimate, 2016	$855,803,000
2015 Enacted	871,315,000
Change in Appropriation	-15,512,000

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

	2013 Actual	2014 Change	2015 Change	2016 Change		2016 Estimate
Discretionary Appropriations:						
Safeguarding and Emergency Preparedness/Response						
Animal Health Technical Services	$34,018	+$1,321	-	+$18	1a	$35,357
Aquatic Animal Health	2,087	+166	-	+6	1b	2,259
Avian Health	47,993	+4,347	-	+55	1c	52,395
Cattle Health	90,341	+2,159	-	-2,339	1d	90,161
Equine,Cervid, & Small Ruminant Health	17,692	+1,808	-	+34	1e	19,534
National Veterinary Stockpile	2,538	+1,184	+251	-251	1f	3,722
Swine Health	21,228	+1,022	+2,000	+586	1g	24,836
Veterinary Biologics	15,189	+1,228	-	+31	1h	16,448
Veterinary Diagnostics	29,175	+2,365	-	+54	1i	31,594
Zoonotic Disease Management	9,575	-52	-	+10,013	1j	19,536
Subtotal, Animal Health	269,834	+15,550	+2,251	+8,207		295,842
Agricultural Quarantine Inspection (Appropriated)	26,304	+596	-	+2,430	1k	29,330
Cotton Pests	14,739	-2,019	-1,200	-3,326	1l	8,194
Field Crop & Rangeland Ecosystems Pests	8,369	+457	-	+50	1m	8,876
Pest Detection	25,381	+2,065	-	+58	1n	27,504
Plant Protection Methods Development	19,935	+614	+137	+48	1o	20,734
Specialty Crop Pests	142,087	+9,413	+4,500	-10,818	1p	145,182
Tree & Wood Pests	52,273	+5,727	-4,000	-8,481	1q	45,519
Subtotal, Plant Health	289,089	+16,852	-563	-20,039		285,339
Wildlife Damage Management	67,836	+19,592	+2,599	-9,444	1r	80,583
Wildlife Services Methods Development	17,536	+1,320	-	+52	1s	18,908
Subtotal, Wildlife Services	85,372	+20,912	+2,599	-9,392		99,491
Animal & Plant Health Regulatory Enforcement	15,021	+1,203	-	+40	1t	16,264
Biotechnology Regulatory Services	16,738	+1,397	+740	+26	1u	18,901
Subtotal, Regulatory Services	31,758	+2,601	+740	+66		35,165
Contingency Fund	1,384	-914	-	+1	1v	471
Emergency Preparedness & Response	15,690	+1,276	-	+25	1w	16,991
Subtotal, Emergency Management	17,074	+362	-	+26		17,462
Subtotal Safeguarding and Emergency Preparedness/Response	693,128	+56,276	+5,027	-21,132		733,299
Safe Trade and International Technical Assistance						
Agriculture Import/Export	12,325	+1,774	-	+5,526	2a	19,625
Overseas Technical & Trade Operations	18,472	+1,642	+2,000	+24	2b	22,138
Subtotal Safe Trade and International Technical Assistance	30,797	+3,416	+2,000	+5,550		41,763

	2013 Actual	2014 Change	2015 Change	2016 Change		2016 Estimate
Animal Welfare						
Animal Welfare……	25,000	+3,010	-	+61	3a	28,071
Horse Protection……	642	+55	-	+9	3b	706
Subtotal, Animal Welfare……	25,642	+3,065	-	+70		28,777
Agency-Wide Programs						
APHIS Information Technology Infrastructure……...	4,001	+250	-	-	4a	4,251
Physical/Operational Security……	4,952	+194	-	-	4b	5,146
Decentralized GSA Rental and DHS Security Payments	-	-	42,567	-	4c	42,567
Subtotal, Agency Management……	8,953	+444	42,567	-		51,964
General Provision 748 [a/] …….....	-	+20,000	-20,000	-		-
Total, Appropriation or Change …….....……	$758,519	+$83,202	$29,594	-$15,512		$855,803

a/ 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 will be available until September 30, 2015.

Salaries and Expenses

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

Program	2013 Actual		2014 Actual		2015 Enacted		Inc. or Dec.		2016 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Appropriations:										
Safeguarding and Emergency Preparedness/Response										
Animal Health Technical Services	$34,018	64	$35,339	64	$35,339	64	+$18	-	$35,357	64
Aquatic Animal Health	2,087	22	2,253	22	2,253	22	+6	-	2,259	22
Avian Health	47,993	196	52,340	196	52,340	196	+55	-	52,395	196
Cattle Health	90,341	560	92,500	555	92,500	555	-2,339	-10	90,161	545
Equine, Cervid & Small Ruminant Health	17,692	129	19,500	120	19,500	120	+34	-	19,534	120
National Veterinary Stockpile	2,538	1	3,722	1	3,973	1	-251	-	3,722	1
Swine Health	21,228	122	22,250	120	24,250	128	+586	+2	24,836	130
Veterinary Biologics	15,189	108	16,417	109	16,417	109	+31	-	16,448	109
Veterinary Diagnostics	29,175	190	31,540	190	31,540	190	+54	-	31,594	190
Zoonotic Disease Management	9,575	45	9,523	45	9,523	45	+10,013	+19	19,536	64
Subtotal, Animal Health	269,834	1,437	285,384	1,422	287,635	1,430	+8,207	+11	295,842	1,441
Agricultural Quarantine Inspection (Appropriated)	26,304	360	26,900	360	26,900	360	+2,430	+19	29,330	379
Cotton Pests	14,739	61	12,720	58	11,520	58	-3,326	-	8,194	58
Field Crop & Rangeland Ecosystems Pests	8,369	58	8,826	58	8,826	58	+50	-	8,876	58
Pest Detection	25,381	145	27,446	145	27,446	145	+58	-	27,504	145
Plant Protection Methods Development	19,935	139	20,549	141	20,686	141	+48	-	20,734	141
Specialty Crop Pests	142,087	694	151,500	688	156,000	688	-10,818	-7	145,182	681
Tree & Wood Pests	52,273	319	58,000	319	54,000	319	-8,481	-4	45,519	315
Subtotal, Plant Health	289,089	1,776	305,941	1,769	305,378	1,769	-20,039	+8	285,339	1,777
Wildlife Damage Management	67,836	526	87,428	620	90,027	620	-9,444	-30	80,583	590
Wildlife Services Methods Development	17,536	163	18,856	163	18,856	163	+52	-	18,908	163
Subtotal, Wildlife Services	85,372	689	106,284	783	108,883	783	-9,392	-30	99,491	753
Animal & Plant Health Regulatory Enforcement	15,021	138	16,224	142	16,224	142	+40	-	16,264	142
Biotechnology Regulatory Services	16,738	90	18,135	92	18,875	92	+26	-	18,901	92
Subtotal, Regulatory Services	31,758	228	34,359	234	35,099	234	+66	-	35,165	234
Contingency Fund	1,384	15	470	5	470	5	+1	-	471	5
Emergency Preparedness & Response	15,690	89	16,966	90	16,966	90	+25	-	16,991	90
Subtotal, Emergency Management	17,074	104	17,436	95	17,436	95	+26	-	17,462	95
Emergency Preparedness/Response	693,128	4,234	749,404	4,303	754,431	4,311	-21,132	-11	733,299	4,300
Safe Trade and International Technical Assistance										
Agriculture Import/Export	12,325	92	14,099	92	14,099	92	+5,526	+4	19,625	96
Overseas Technical & Trade Operations	18,472	73	20,114	76	22,114	86	+24	-	22,138	86
International Technical Assistance	30,797	165	34,213	168	36,213	178	+5,550	+4	41,763	182
Animal Welfare										
Animal Welfare	25,000	213	28,010	218	28,010	218	+61	-	28,071	218
Horse Protection	642	5	697	6	697	6	+9	-	706	6
Subtotal, Animal Welfare	25,642	218	28,707	224	28,707	224	+70	-	28,777	224
Agency-Wide Programs										
APHIS Information Technology Infrastructure	4,001	-	4,251	-	4,251	-	-	-	4,251	-
Physical/Operational Security	4,952	-	5,146	-	5,146	-	-	-	5,146	-
Decentralized GSA Rental and DHS Security Payments	-	-	-	-	42,567	-	-	-	42,567	-
Subtotal, Agency Management	8,953	-	9,397	-	51,964	-	-	-	51,964	-
Subtotal, Appropriated	758,519	4,617	821,721	4,695	871,315	4,713	-15,512	-7	855,803	4,706

Program	2013 Actual		2014 Actual		2015 Enacted		Inc. or Dec.		2016 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
General Provision 748……....	-	-	20,000	-	-	-	-	-	-	-
Rescission P.L. 113-6……	22,256	-	-	-	-	-	-	-	-	-
Sequester P.L. 113-6……	41,077	-	-	-	-	-	-	-	-	-
Subtotal, Discretionary Appropriated …….....	821,851	4,617	841,721	4,695	871,315	4,713	-15,512	-7	855,803	4,706
Authority from Offsetting collections……	234,983	1,500	198,803	1,500	157,539	1,509	+158	-	157,697	1,509
Sequester P.L. 113-6…Offsetting Collections……	-900	-	-	-	-	-	-	-	-	-
Sequester Restored…Offsetting Collections……	-	-	900	-	-	-	-	-	-	-
Subtotal, Offsetting Collections……	234,083	1,500	199,703	1,500	157,539	1,509	+158	-	157,697	1,509
Mandatory Funding:										
Farm Bill, Section 10007 ……	-	-	62,500	15	62,500	15	-	-	62,500	15
Farm Bill, Section 10201 ……	50,000	15	-	-	-	-	-	-	-	-
Sequester P.L. 113-6…Farm Bill……	-2,550	-	-3,600	-	-4,563	-	+4,563	-	-	-
Subtotal, Farm Bill……	47,450	15	58,900	15	57,937	15	+4,563	-	62,500	15
Trust Funds……..……	13,071	50	8,713	50	9,000	50	-	-	9,000	50
Agricultural Quarantine Inspection User Fees:										
Total Collections……	576,786	1,250	603,369	1,250	614,366	1,250	+134,007	-	748,373	1,250
Less: Transfer to DHS ……	-366,370	-	-362,526	-	-374,763	-	-141,047	-	-515,810	-
Sequester P.L. 113-6 ...AQI……	-10,731	-	-42,806	-	-44,849	-	+44,849	-	-	-
Sequester Restored ...AQI……	-	-	27,510	-	42,806		-42,806	-	-	-
AQI User Fees (APHIS)……	199,685	1,250	225,548	1,250	237,560	1,250	-7,040	-	232,563	1,250
Subtotal, Mandatory Funding……	260,206	1,315	293,161	1,315	304,497	1,315	-434	-	304,063	1,315
Total Appropriations …….....……....	1,252,808	7,432	1,334,584	7,510	1,333,350	7,537	-15,787	-7	1,317,563	7,530
Transfers In:										
CCC……	-	-	20,897	-	-	-	-	-	-	-
Departmental ……	102	-	102	-	-	-	-	-	-	-
Transfers Out:										
Working Capital Fund……	-250	-	-1,500	-	-	-	-	-	-	-
Subtotal, Transfers……	-148	-	19,499	-	-	-	-	-	-	-
Balance Available, SOY……	322,698	170	406,476	211	491,031	330	-23,527	-50	467,504	280
Sequester P.L. 113-6 …Trust Funds……	-67	-	-95	-	-96	-	+96	-	-	-
Recoveries Trust Funds……	436	-	168	-	-	-	-	-	-	-
Recoveries……	25,811	-	13,919	-	-	-	-	-	-	-
Total Available …….....…….....…	1,601,538	7,602	1,774,552	7,721	1,824,285	7,867	-39,219	-57	1,785,066	7,810
Lapsing Balances……	-10,834	-220	-15,011	-280	-	-	-	-	-	-
Balance Available, EOY……	-406,476	-211	-491,031	-330	-467,504	-280	-13,443	+33	-480,947	-247
Total Obligations …….....…….....…	1,184,228	7,171	1,268,510	7,111	1,356,781	7,587	-52,662	-24	1,304,119	7,563

Salaries and Expenses

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

Program	2013 Actual		2014 Actual		2015 Enacted		Inc. or Dec.		2016 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Obligations:										
Safeguarding and Emergency Preparedness/Response										
Animal Health Technical Services	$33,484	64	$34,507	64	$37,675	64	-$2,225	-	$35,450	64
Aquatic Animal Health	1,988	20	2,185	21	2,253	22	-	-	2,253	22
Avian Health	50,207	187	50,252	185	54,753	196	-2,517	-	52,236	196
Cattle Health	89,331	544	90,716	509	92,479	557	-2,362	-12	90,117	545
Equine, Cervid & Small Ruminant Health	18,715	127	20,392	120	19,000	120	+531	-	19,531	120
National Veterinary Stockpile	2,596	1	3,214	2	4,500	2	-86	-1	4,414	1
Swine Health	20,318	122	22,046	120	24,250	128	+550	+2	24,800	130
Veterinary Biologics	15,179	107	16,243	102	16,417	109	-	-	16,417	109
Veterinary Diagnostics	29,153	190	31,540	183	31,540	190	-	-	31,540	190
Zoonotic Disease Management	9,414	41	9,462	43	9,523	45	+10,000	+19	19,523	64
Subtotal, Animal Health	270,385	1,403	280,557	1,349	292,390	1,433	3,890	+8	296,280	1,441
Agricultural Quarantine Inspection (Appropriated)	26,274	360	26,712	356	26,900	360	+2,329	+19	29,229	379
Cotton Pests	13,962	60	12,286	58	12,750	61	-3,371	-	9,379	61
Field Crop & Rangeland Ecosystems Pests	8,385	57	8,694	56	9,200	60	+111	-1	9,311	59
Pest Detection	25,155	145	27,256	143	27,446	145	+17	-	27,463	145
Plant Protection Methods Development	19,138	139	20,166	131	20,686	141	+8	-	20,694	141
Specialty Crop Pests	143,809	687	143,984	634	156,133	690	-16,740	-8	139,393	682
Tree & Wood Pests	51,622	303	70,080	294	51,770	326	-878	-9	50,892	317
Subtotal, Plant Health	288,346	1,751	309,179	1,672	304,885	1,783	-18,523	+1	286,362	1,784
Wildlife Damage Management	68,027	526	86,893	550	89,988	620	-9,477	-30	80,511	590
Wildlife Services Methods Development	17,297	163	18,742	153	18,970	163	-64	-	18,906	163
Subtotal, Wildlife Services	85,324	689	105,635	703	108,957	783	-9,540	-30	99,417	753
Animal & Plant Health Regulatory Enforcement	14,728	138	16,102	138	16,224	142	-	-	16,224	142
Biotechnology Regulatory Services	15,792	90	16,864	90	18,875	92	-	-	18,875	92
Subtotal, Regulatory Services	30,520	228	32,967	228	35,099	234	-	-	35,099	234
Contingency Fund	1,644	5	-	-	3,000	8	-2,500	-7	500	1
Emergency Preparedness & Response	15,637	83	16,813	90	16,966	90	-	-	16,966	90
Subtotal, Emergency Management	17,281	88	16,813	90	19,966	98	-2,500	-7	17,466	91
Subtotal Safeguarding and Emergency Preparedness/Response	691,856	4,159	745,151	4,042	761,297	4,331	-26,673	-28	734,624	4,303
Safe Trade and International Technical Assistance										
Agriculture Import/Export	12,021	92	13,992	90	14,099	92	+5,500	+4	19,599	96
Overseas Technical & Trade Operations	18,442	70	20,052	66	22,114	86	-	-	22,114	86
Subtotal Safe Trade and International Technical Assistance	30,463	162	34,044	156	36,213	178	+5,500	+4	41,713	182
Animal Welfare										
Animal Welfare	24,585	210	27,903	209	28,010	218	-	-	28,010	218
Horse Protection	640	5	687	6	697	6	+7	-	704	6
Subtotal, Animal Welfare	25,226	215	28,590	215	28,707	224	+7	-	28,714	224
Agency-Wide Programs										
APHIS Information Technology Infrastructure	3,921	-	4,182	-	4,351	-	-50	-	4,301	-
Physical/Operational Security	4,947	-	5,133	-	5,146	-	-	-	5,146	-
Decentralized GSA Rental and DHS Security Payments	-	-	-	-	42,567	-	-	-	42,567	-
Subtotal, Agency Management	8,869	-	9,316	-	52,064	-	-50	-	52,014	-
General Provision 748	-	-	4,260	-	15,740	-	-15,740	-	-	-
Subtotal, Discretionary	756,414	4,536	821,361	4,413	894,021	4,733	-36,957	-24	857,065	4,709

Program	2013 Actual		2014 Actual		2015 Enacted		Inc. or Dec.		2016 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Mandatory Obligations:										
Agricultural Quarantine Inspection User Fees……	194,095	1,121	193,890	1,121	201,600	1,250	+500	-	202,100	1,250
Farm Bill……..…	47,008	15	57,286	15	58,303	15	+4,197	-	62,500	15
Trust Funds……..….	14,919	50	7,807	29	9,000	50	-	-	9,000	50
Subtotal, Mandatory ..…….....……..	256,021	1,186	258,984	1,165	268,903	1,315	+4,697	-	273,600	1,315
Other Obligations:										
CCC……	5,213	-	12,947	-	19,706	-	-19,706	-	-	-
Obligations from Offsetting collections……	162,360	1,449	169,301	1,533	170,147	1,539	+340	-	170,488	1,539
Homeland Security, HUB Relo, & Department……	106	-	128	-	4	-	-4	-	-	-
H1N1……..……....	4,113	-	4,741	-	4,000	-	-1,033	-	2,967	-
Refunds for equipment sold……	-	-	1,047	-	-	-	-	-	-	-
Subtotal, Other ..…….....……....	171,792	1,449	188,165	1,533	193,857	1,539	-20,402	-	173,455	1,539
Total, Obligations ..……	1,184,228	7,171	1,268,510	7,111	1,356,781	7,587	-52,661	-24	1,304,119	7,563
Lapsing Balances……	10,834	220	15,011	355	-	-	-	-	-	-
Balance Available, EOY……	406,476	211	491,031	255	467,504	280	+13,443	-33	480,947	247
Total, Available ..……	1,601,538	7,602	1,774,552	7,721	1,824,285	7,867	-39,218	-57	1,785,066	7,810
Transfers In:										
CCC ……...……	-	-	-20,897	-	-	-	-	-	-	-
Departmental……	-102	-	-102	-	-	-	-	-	-	-
Transfers Out:										
Working Capital Fund……	250	-	1,500	-	-	-	-	-	-	-
Sequester P.L. 113-6……	67	-	95	-	96	-	-96	-	-	-
Balance Available, SOY……	-322,698	-170	-406,476	-211	-491,031	-330	+23,527	+50	-467,504	-280
Recoveries: Other (Net)……	-26,248	-	-14,087	-	-	-	-	-	-	-
Total, Appropriation ..……	1,252,808	7,432	1,334,584	7,510	1,333,350	7,537	-15,787	-7	1,317,563	7,530

Justification of Increases and Decreases
Salaries and 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.

An increase of $1,671,000 to partially fund increased Federal Employee Health Benefits costs. Remaining cost will be absorbed by the programs.

The Office of Personnel Management issued a final rule that modified eligibility for coverage under the Federal Employees Health Benefits Program to certain temporary, seasonal, and intermittent Federal employees. The request includes a total of $1.671.000 to cover this cost.

An increase of $5,690,000 to partially fund increased pay costs. Remaining pay cost increases will be absorbed by the programs.

A large portion of APHIS' budget is in support of personnel compensation. The request includes a total of $5,690,000 to cover increases in pay for associated employees including $1,150,300 to cover the annualization of the 1 percent 2015 pay increase and $4,539,700 is for a 1.3 percent increase in 2016.

(1) A net decrease of $21,132,000 and a net decrease of 11 staff years for Safeguarding and Emergency Preparedness/Response:

A net increase of $8,207,000 and 11 staff years for Safeguarding and Emergency Preparedness/Response - Animal Health.

(a) A net increase of $18,000 for Animal Health Technical Services program ($35,339,000 and 64 staff years available in 2015).

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 entered by Federal, State, Tribal and private individuals in multiple systems to be compiled nationally, thus leveraging the work of animal health professionals across the country to meet local, State and national veterinary health objectives. Private veterinarians trained and accredited by APHIS assist producers in meeting both 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.

Technical applications and systems made available by APHIS are vital for national animal health surveillance and response activities. The Agency is assisting interested States in installing and using the Agency's current product for managing animal disease surveillance data. Additionally, the program increased the use of validated and verified animal disease spread models, linked to economic impact models, to develop and test disease response strategies. APHIS leads the implementation of the joint USDA/Department of Homeland Security foreign animal disease modeling analysis center, and contributes funding to additional modeling efforts through cooperative agreements.

The activities conducted to safeguard American agriculture are too expansive to be overseen only by Federally-employed veterinarians. The voluntary National Veterinary Accreditation Program (NVAP) authorizes more than 65,000 private veterinary practitioners to work with Federal veterinarians and State animal health officials on cooperative animal health related programs. Through the NVAP, APHIS leverages the medical expertise and community relationships of private veterinarians to deliver critical,

Federally-regulated animal health services to safeguard 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 28 U.S. veterinary schools, building knowledge among new veterinary professionals. Failure to adhere to the Federal standards that APHIS oversees can result in license suspension or revocation of a participating accredited veterinarian. On average, less than ten veterinarians have their accreditation suspended or revoked each year.

Because animal traceability is a vital issue with U.S. trading partners, APHIS has been developing the new animal disease traceability (ADT) framework. This framework brings together Federal, State, Tribal, and private animal health professionals to identify diseased animals in a timely manner, quickly trace their movements, and control disease spread. These activities are crucial to protecting the U.S. livestock industry, whose production value was approximately $73 billion in 2013 (National Agricultural Statistics Service). Knowing where diseased and at-risk animals are located helps preserve animal health, reduce animal deaths if outbreaks occur, and limit economic losses to owners and communities. This approach addresses many producer concerns about previous efforts to implement a national animal identification system by directing more responsibility to the State and Tribal level. Additionally, it offers basic, low-cost animal identification options that are well supported by most industry sectors as a starting point to increase the number of animals officially identified, particularly for cattle. While other species are included, current practices for many of those species result in adequate traceability and are being maintained.

The new ADT approach also addresses many concerns that Congress identified with the previous approach, including the need to establish performance standards to measure the system's value that are linked to cooperator funding; developing a mandatory system; and, a reliable system with reasonable operational costs. The improved framework focuses on where the impact of disease spread is the greatest—animals moving interstate. APHIS regulations requiring official identification of livestock as well as certificates that document the health of the animals (unless otherwise exempt) assure necessary participation. This rulemaking will enhance the ability of the United States to regionalize and compartmentalize animal health issues more quickly, minimizing losses and enabling the reestablishment of foreign and domestic market access with minimum delay during an animal disease event. This will help U.S. animal and animal product exports to remain competitive in the global market place as trade requirements increasingly require such a system to allow access to markets. APHIS' objective is to decrease the time needed to trace animals, and the performance-based approach directs these efforts accordingly. The Agency estimates that a disease trace can be conducted twice as quickly when official identification is used. States and Tribes will implement traceability programs that work with their stakeholders and align to national standards. The Agency provides funding to help support the implementation of ADT at the local level. In FY 2014, 89 percent of States receiving cooperative funding had an approved ADT strategic plan in place with APHIS. The Agency anticipates that at least 95 percent of States receiving cooperative agreement funds will have a current strategic plan consistent with the recently implemented final rule for ADT by the end of FY 2015 and through FY 2016. These plans will be in place for FY 2016.

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.

Pay (+$78,000)

The request includes a total of $78,000 to cover increases in pay for associated employees, of which $16,000 is for the annualization of the 1 percent 2015 pay increase and $62,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$60,000)

Operating costs for the program will be reduced by $60,000.

(b) A net increase of $6,000 for the Aquatic Animal Health program ($2,253,000 and 22 staff years available in 2015).

The Aquatic Animal Health program focuses on protecting animal health within the U.S. aquaculture industry, valued at $1.6 billion in 2012 (National Agricultural Statistics Service). 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. It was developed and signed by the three Federal government agencies responsible for the national oversight of aquatic animal health, APHIS, the National Oceanic and Atmospheric Administration, and the U.S. Fish and Wildlife Service, with input from key stakeholders. These agencies are working with industry to prioritize elements in the NAAHP and develop an implementation plan for related activities to meet objectives of the plan.

APHIS is leading the interagency collaborative effort to increase the effectiveness of aquatic animal health efforts in the United States. APHIS enters into limited cooperative agreements with State animal health and wildlife agencies and Native American Tribes to support surveillance efforts. APHIS, States, Tribes, and the industry collaborate regularly on policy and guidelines. APHIS also works with international trading partners to facilitate safe trade in aquatic animals and products.

Funding for this 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 2016.

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 (+$26,000)

The request includes a total of $26,000 to cover increases in pay for associated employees, of which $5,000 is for the annualization of the 1 percent 2015 pay increase and $21,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$20,000)

Operating costs for the program will be reduced by $20,000.

(c) A net increase of $55,000 and 0 staff years for the Avian Health program ($52,340,000 and 196 staff years available in 2015).

The Avian Health program protects the U.S. poultry industry, valued at $44.3 billion in 2013 (National Agricultural Statistics Service) while facilitating agricultural trade in poultry and poultry products. This program consists of the National Poultry Improvement Plan (NPIP), avian influenza (AI) prevention and control program, avian health and management studies, disease threat planning and response for the livestock, poultry and zoological industries, comprehensive poultry disease surveillance (including wildlife surveillance), and zoonotic disease prevention and response. There are both domestic and international components of this program.

APHIS' avian health surveillance programs detect foreign and domestic diseases, including zoonotic 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.

An important focus of this program is notifiable avian influenza (NAI), which are forms of AI that must be reported to the World Organisation for Animal Health (OIE) due to their potential for health threat and disease spread. Annually, APHIS' funding supports more than two million tests in commercial poultry and more than 200,000 tests in smaller premises, such as backyard birds and the Live Bird Marketing System (LBMS). NAI findings are investigated or addressed to prevent mutation of low pathogenic strains into highly pathogenic strains that can devastate the domestic poultry population, close export markets to U.S. poultry and poultry products, and cause disease and death in humans. In FY 2015, APHIS is investigating detections of avian influenza in wild birds and responding to a detection of highly pathogenic avian influenza in a commercial turkey flock in California. APHIS and State partners are working jointly on additional surveillance and testing in the nearby area, following existing avian influenza response plans. These plans also will include preventing the movement of risky animals or products out of the immediate area to prevent further disease spread and additional measures as needed as the response continues. The cost of an outbreak of highly pathogenic avian influenza (HPAI) could be staggering. If an HPAI outbreak were to occur similar to that in the early 1980s in Pennsylvania, it has been estimated that the direct cost of eradication would be more than $222 million and indirect costs such as to the poultry industry would be more than $924 million (in current dollars). In addition to reducing the impact on producers, States, and Tribes, APHIS' rapid response to NAI findings also facilitates exports. For example, during an HPAI outbreak in 2004 in Texas, some major importers of U.S. poultry placed regional bans instead of countrywide bans, allowing non-affected areas to continue trade. These negotiations have been successful because our surveillance includes frequent follow-up testing when a suspect AI finding is detected as well as testing contact birds and premises to ensure the virus has not spread.

The successful NPIP is a cooperative Federal-State-industry program through which diagnostic technology is used to guard against disease incursion and enhance the marketability of poultry and poultry products. It allows the U.S. to certify to our trading partners that many classes of poultry originate from flocks that are monitored or are free of diseases. APHIS provides most of the funding for the program 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 populations. By supporting the poultry industry's ability to market, the NPIP supports thousands of jobs in the major poultry producing States.

Internationally, USDA works closely with organizations such as the OIE, the United Nations Food and Agriculture Organization (FAO), and the World Health Organization to assist HPAI H5N1-affected regions with disease prevention, management, and eradication activities. APHIS provides training and support overseas to respond to AI outbreaks to prevent the disease from entering the United States and has assisted foreign governments in reducing the severity and number of poultry and human deaths due to AI. Collaborative border programs led to the implementation of a U.S./Mexico Wildlife Disease Border Surveillance Plan allowing cross border surveillance for AI. By helping countries prepare for, manage, or eradicate HPAI H5N1 outbreaks, APHIS has reduced the risk of the disease spreading from overseas to the United States.

The Avian Health program continuously evaluates its activities to ensure it is operating efficiently. For example, the program has increased the use of controlled-marketing where flocks can continue to be slaughtered and receive a market value as a cost-effective alternative to depopulating bird flocks when low pathogenic avian influenza (LPAI) is detected in the absence of disease. Other operational changes include reducing the number of APHIS personnel used as instructors in international training courses by 70 percent. APHIS has used the "train the trainer" process and transferred the knowledge to overseas collaborators such as FAO, OIE, and non-governmental 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 (+$235,000)

The request includes a total of $235,000 to cover increases in pay for associated employees, of which $47,000 is for the annualization of the 1 percent 2015 pay increase and $188,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$180,000)

Operating costs for the program will be reduced by $180,000.

(d) A net decrease of $2,339,000 and 10 staff years for the Cattle Health program ($92,500,000 and 555 staff years available in 2015).

The Cattle Health program protects the health of cattle and improves the quality, productivity, and economic viability of the $76 billion cattle industry (National Agriculture Statistics Service, 2012 Census of Agriculture). APHIS activities include disease prevention, monitoring and surveillance, and investigation and response actions undertaken when cattle health issues are identified. The program prevents the entry of serious animal pests such as the screwworm and cattle fever ticks (CFT), works to eliminate serious diseases such as brucellosis and bovine tuberculosis (TB), and conducts surveillance for foreign animal diseases, among other things. In addition, APHIS maintains regulations, program standards, and guidelines that direct cattle health activities at both the Federal and State/Tribal level. Establishing and maintaining these national standards is an important Federal responsibility that supports interstate and international commerce by providing assurances regarding the health of animals and products being moved or traded.

Internationally, APHIS conducts preventive programs to keep exotic pests and diseases out of the country. APHIS collaborates with countries in Central America to prevent the entrance of screwworm and other high-risk transboundary animal diseases, thereby creating a barrier against the spread of disease into the United States. Preventing the spread of screwworm into the United States is estimated to save approximately $53 million annually. In 1976, a screwworm outbreak in Texas resulted in an estimated $113 to $150 million in losses. This translates to an estimated $470 to $624 million in 2014 dollars. Nearly four decades later, most Central American countries have been declared screwworm-free, helping to safeguard the American cattle industry. In addition to screwworm, APHIS works cooperatively with Mexico and other counties in Central America to assist with the detection and control of foot-and-mouth disease (FMD), bovine spongiform encephalopathy (BSE), and works through the Binational Committee with Mexico to discuss issues of mutual concern such as cattle fever tick, brucellosis, and tuberculosis (TB). The agency also works with international trading partners to facilitate safe trade in cattle and cattle products.

Domestically, APHIS' cattle surveillance programs are designed to quickly detect foreign, emerging, zoonotic and domestic animal diseases that could have a substantial impact on domestic producers and the economy; cause loss of consumer confidence in the U.S. food supply; and/or have substantial economic impact to responding State, Tribal, and Federal animal health agencies. Early detection of devastating diseases such as 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. This illustrates the value of quickly locating and containing a disease or incident. It also illustrates the consequence of a slow detection or delayed response.

In addition, surveillance information verifies and documents that certain diseases do not exist in the cattle population, thus facilitating trade and protecting public health. BSE surveillance information 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 $5 billion in FY 2013. APHIS, States, Tribes, and industry collaborate regularly and 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.

The Cattle Health program continues to make great strides toward eradicating brucellosis from domestic cattle and bison; wildlife in the Greater Yellowstone Area remains the last known reservoir of brucellosis in the United States. The State of Wyoming conducted an economic analysis that indicated that should brucellosis eradication efforts be discontinued, the costs of producing beef and milk would increase by an estimated $80 million annually in less than 10 years as the disease would again become active. With the successful eradication of brucellosis in domestic cattle, the program is streamlining surveillance efforts while ensuring that surveillance data are sufficient to demonstrate a national disease-free status to trading partners. APHIS' goal for FY 2016 is to maintain class-free status in all 50 States. The Cattle Health program also continues to make progress in eradicating TB from domestic livestock. Iowa State University conducted a study that suggests more than $13 billion has been returned to the U.S. economy in terms of avoided economic losses since the TB eradication program began. In addition, this program has reduced the prevalence of the disease in U.S. livestock to less than 0.001 percent. Instead of recommending whole-herd depopulation as the primary option to manage TB-affected herds, APHIS now bases its approach on the circumstances surrounding each herd. For those herds where depopulation is not recommended, the herd undergoes a test-and-remove protocol, gaining significant savings of Federal dollars while continuing to eliminate the disease. APHIS' goal for FY 2016 is to increase the number of States recognized as TB-free from 48 to 49. In addition, through cooperative efforts between APHIS and the State of Texas, the Cattle Health program has prevented cattle fever tick (CFT) from spreading within the United States. This program's goal for FY 2016 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 2016, 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.

A decrease for the Cattle Health program (-$2,500,000 and 10 staff years).

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 and livestock markets, farms, rendering facilities, and diagnostic laboratories. This approach enables APHIS to detect BSE at very low prevalence and assess any change in the BSE status of cattle. In May 2013, OIE granted the United States negligible risk status for BSE. APHIS can implement modifications to its BSE surveillance efforts in FY 2016 that will reduce the overall cost while maintaining surveillance at levels that continue to exceed international standards.

Health Benefits for seasonal employees (+$13,000)

The Office of Personnel Management issued a final rule that modified eligibility for coverage under the Federal Employees Health Benefits Program to certain temporary, seasonal, and intermittent Federal employees. The Budget includes $13,000 for this cost.

Pay (+$672,000)

The request includes a total of $672,000 to cover increases in pay for associated employees, of which $137,000 is for the annualization of the 1 percent 2015 pay increase and $535,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$524,000)

Operating costs for the program will be reduced by $524,000.

(e) A net increase of $34,000 for the Equine, Cervid and Small Ruminant Health program ($19,500,000 and 120 staff years available in 2015).

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. APHIS' 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 and establish minimum standards to allow safe trade in equine, cervids, and small ruminants and their products. The ECSRH program conducts disease surveillance and/or monitoring for contagious equine metritis, chronic wasting disease (CWD), Eastern equine encephalitis and Western equine encephalitis, equine herpes virus myeloencephalopathy, equine piroplasmosis (EP), equine infectious anemia (EIA), scrapie, tuberculosis (TB), vesicular stomatitis virus, and West Nile virus (WNV).

Scrapie is a fatal, degenerative disease that affects the central nervous system of sheep and goats. APHIS' Scrapie Eradication Program focuses on seven primary areas: education and prevention, sheep and goat identification and compliance, surveillance, tracing and testing positive and exposed animals, cleanup of infected and source flocks through genetic testing and indemnification of susceptible exposed animals, monitoring of previously infected and exposed flocks, and the Scrapie Free Flock Certification Program. 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. In FY 2014, APHIS tested more than 48,000 samples from sheep and goats for scrapie, compared to approximately 45,000 samples tested in FY 2013. This 7 percent increase is largely due to increased surveillance of scrapie in goats. Since approximately 2003, the percentage of positive scrapie sheep found at slaughter (adjusted for face color) has decreased by 87 percent. APHIS will continue monitoring for scrapie at approximately the same level in FY 2016.

To aid in the eradication of bovine TB in the United States, APHIS provides a voluntary bovine TB herd accreditation program for captive cervids and requires TB testing of cervids to be eligible for interstate movement. APHIS' tests approximately 15,000 captive cervids for TB each year, and supports the CWD herd certification program (HCP). APHIS' voluntary national CWD HCP helps States, Tribes, and the cervid industry control CWD in farmed cervids by allowing the interstate movement of cervids only from certified herds considered to be low risk to CWD. This measure is aimed at reducing the risk of CWD spread between States and disease transmission between wild and farmed cervids. APHIS reviews State applications, approves State CWD HCPs that meet the requirements of the national CWD HCP rule, conducts periodic reviews to ensure compliance, and supports confirmatory testing of presumptive cases. There are currently 29 States participating in the national CWD HCP – 26 have Approved Status and 3 have Provisional Approved Status. States that meet all the minimum CWD HCP program 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 safeguards the equine industry by helping State animal health officials monitor equine diseases that threaten animal and human health. APHIS 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 the World Organisation for Animal Health any cases of foreign animal disease in the United States, including contagious equine metritis and equine piroplasmosis. 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.

APHIS has implemented numerous improvements, reducing costs and improving program efficiency. The Agency has saved more than $5 million in indemnity costs since FY 2005 as a result of the adoption of a genetics-based flock clean up strategy. This strategy recognizes that some sheep are genetically resistant to scrapie and that these animals do not need to be culled if they are exposed. Implementing this strategy reduced the number of sheep that are required to be depopulated or permanently restricted by approximately 60 percent.

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 (+$145,000)

The request includes a total of $145,000 to cover increases in pay for associated employees, of which $29,000 is for the annualization of the 1 percent 2015 pay increase and $116,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$111,000)

Operating costs for the program will be reduced by $111,000.

(f) A net decrease of $251,000 and 0 staff-years for the National Veterinary Stockpile program ($3,973,000 and 1 staff year in 2015).

The National Veterinary Stockpile (NVS) is the nation's repository for critical veterinary countermeasures and a vital component of USDA's emergency preparedness and response efforts. NVS serves as a primary source of materials, supplies, and equipment needed by Federal, State, Tribal and local officials to respond to, control, and contain foreign animal and other significant animal disease outbreaks. NVS includes animal handling equipment, animal vaccines, pharmaceutical products, other veterinary supplies, and transportation and response support services, which are all critical countermeasures in the event of a damaging animal disease event/occurrence.

APHIS maintains the capacity to respond to any significant animal health event and the Agency has specific countermeasures ready to deploy within 24 hours of detection for 5 of the 15 most significant animal disease of concern. The program also has contracts in place to provide animal handling equipment and other vital materials in the event of a protracted emergency. 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.

The NVS assists States, Tribes, and Territories through operational 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 priority diseases outlined in APHIS' High-Consequence Foreign Animal Disease and Pests Fact Sheet - including contract terms that specify stock rotations – and continuously evaluate supply chains seeking opportunities to reduce delivery time. The NVS partners with Federal agencies for scientific input on current

commercially available veterinary countermeasures such as vaccines, diagnostic test kits, and pharmaceuticals; develops criteria for deployment, including conducting exercises; and, determines ways to leverage stockpiles.

The capacity of the stockpile is commensurate with the resource level. Without NVS' efforts, if outbreaks were to occur, national response efforts would quickly deplete State and industry response inventories and overwhelm the private sector, leading to larger and more serious disease outbreaks. For FY 2015, the NVS plans to hold a full-scale exercise in Wisconsin to test the State's ability to logistically respond to a damaging animal disease. This exercise is being developed in response to a request from the Wisconsin Department of Agriculture, Trade, and Consumer Protection. Wisconsin is among the top States in value of U.S. sales from dairy products, and could be significantly affected by an outbreak of Foot and Mouth Disease, for example.

APHIS is requesting a reduction of $251,000 for the NVS program in FY 2016. The stockpile was relocated to a new warehouse facility in FY 2015; the costs to transport and re-install equipment were one-time and will not be needed in FY 2016.

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.

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 percent 2015 pay increase and $700 is for the 1.3 percent increase in 2016.

Program Reduction (-$1,000)

Operating costs for the program will be reduced by $1,000.

(g) A net increase of $586,000 and 2 staff years for the Swine Health program ($24,250,000 and 128 staff years available in 2015).

The Swine Health program protects the health and improves the quality, productivity, and economic viability of the swine industry. The 2013 production value of the swine industry was approximately $21.4 billion (National Agricultural Statistics Service). APHIS activities include comprehensive and integrated surveillance and reporting, disease prevention, emergency preparedness and response planning, and investigation and response actions undertaken when swine health issues are identified. APHIS also maintains regulations, program standards and guidelines that direct swine health activities at both the Federal and State/Tribal level. Establishing and maintaining these national standards is an important Federal responsibility that supports interstate and international commerce by providing assurances regarding the health of animals and products being moved or traded.

Early detection of devastating diseases, such as classical swine fever (CSF) or foot-and-mouth disease (FMD) is vital. APHIS conducts swine surveillance programs to quickly detect foreign, emerging, zoonotic, and domestic swine diseases that could potentially and substantially impact domestic producers and the national economy; cause loss of consumer confidence in the U.S. food supply; and/or have substantial economic impact to responding State, Tribal, and Federal animal health agencies. APHIS currently tests more than 350,000 animals per year from various surveillance streams. The program is pursuing a more comprehensive and integrated approach to surveillance where surveillance streams are flexible and scalable as priorities and needs change. Surveillance information verifies and documents that certain diseases do not exist in the swine populations, thus facilitating trade and/or protecting public health. In cooperation with the industry and the Department of Health and Human Services Centers for Disease Control and Prevention, the program has also developed a surveillance program for swine influenza.

APHIS enforces the Swine Health Protection Act, which protects the commerce, health, and welfare of U.S. citizens by ensuring that in States that allow food waste to be fed to swine, the waste does not contain active disease organisms that pose a risk to the domestic swine population. Raw garbage is one of the primary media through which numerous infectious or communicable diseases of swine are transmitted. APHIS addresses this risk by monitoring markets, inspecting licensed facilities, monitoring the disposition of food waste at restaurants and food service institutions, and reviewing the handling of food waste at international air and sea ports.

APHIS, States/Tribes, and industry collaborate regularly on policy and guidelines and exchange ideas. 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.

Emerging Swine Disease Surveillance (net increase of $550,000)

While APHIS has extensive and successful disease-specific surveillance for CSF, swine brucellosis, pseudorabies virus (PRV), and influenza-A virus in swine, the Agency confirmed two Swine Enteric Coronavirus Diseases (SECDs) – porcine epidemic diarrhea virus (PEDV) and porcine delta coronavirus (PDCoV) – in the United States within only a 12-month period. These diseases have caused significant morbidity and mortality, killing millions of piglets since being detected. PEDV has now spread to 33 States, PDCoV has been detected in 17 States, and 13 States have at least one confirmed positive case of both diseases. The lack of mandatory reporting for emerging swine diseases such as SECD and the lack of a clearly defined framework for emerging disease response has contributed to the spread of PEDv. APHIS took steps to address these coronaviruses, using approximately $9.8 million in emergency funding during 2014, and expects to continue these actions through 2015.

In FY 2016, APHIS will be working to improve emerging swine disease detection and response capabilities for the longer term. APHIS requests an increase of $550,000 and plans to shift $2.45 million from elsewhere in the Swine Health line item to this effort (for a total of $3 million). This shift is related to modernizing PRV and swine brucellosis surveillance through a risk- and science-based approach that enhances surveillance while reducing financial and regulatory burdens on States and producers. The Agency developed statistical and epidemiological methods to increase the efficiency of animal health surveillance by targeting high-risk sampling for swine diseases. APHIS has done so without sacrificing the quality of the surveillance system for those diseases. This increase will allow APHIS to continue monitoring and management activities for emerging and foreign animal diseases in swine, enhance knowledge and response to these diseases, and further develop a response framework for them.

Pay (+$155,000)

The request includes a total of $155,000 to cover increases in pay for associated employees, of which $31,000 is for the annualization of the 1 percent 2015 pay increase and $124,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$119,000)

Operating costs for the program will be reduced by $119,000.

(h) A net increase of $31,000 for the Veterinary Biologics program ($16,417,000 and 109 staff years available in 2015).

The Veterinary Biologics program protects the health of animals by ensuring that veterinary biological products manufactured and/or marketed in the United States meet purity, safety, potency, and efficacy standards as required by the Virus-Serum-Toxin Act. These products, valued at more than $1.35 billion domestically, are developed for the diagnosis, prevention, and treatment of animal diseases, and are used in all of the major farmed species (cattle, poultry, swine, and sheep), as well as horses, dogs, cats, and other pets. This program licenses veterinary biological products; issues export certifications; evaluates and tests new products; inspects facilities and products; investigates non-compliance; and conducts post-marketing surveillance to ensure that manufacturers remain in compliance with all laws, regulations, and policies relating to this industry. APHIS' comprehensive approach ensures that only quality, Federally-licensed veterinary biological products are available to U.S. customers. More than 100 different manufacturers hold licenses, and their products are used to control more than 215 animal diseases. APHIS ensures that animal owners are protected from contaminated, worthless, dangerous, and/or harmful products. 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 the protection of animal health and agriculture.

Each year, this program issues more than 35 new/renewed licenses/permits for the control or diagnosis of existing or new/emerging animal diseases while maintaining oversight of more than 2,000 previously licensed veterinary biological products. 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 such as influenza. At the end of FY 2014, there were 218 animal diseases for which APHIS had issued a pure, safe, potent, and effective veterinary biologics product. The Agency plans to increase that figure to 219 for fiscal years 2015 and 2016. Annually, APHIS reviews and processes more than 3,600 Certificates of Licensing and Inspection and issues more than 1,000 Export Certificates for veterinary biological products. Vaccines licensed by APHIS for foreign animal diseases, such as foot-and-mouth disease, can control or limit the spread of these economically catastrophic animal diseases, while pre-harvest vaccines reduce the prevalence of bacteria, thereby improving animal health. APHIS' main strategy is to gain and maintain compliance with its regulations by educating both licensed and unlicensed entities. APHIS annually inspects, on average, at least 45 biologics manufacturing sites to assure compliance. More than 99 percent of the unlicensed entities investigated either move towards licensure of the veterinary biological product in question or cease the objectionable activity. In FY 2012, APHIS implemented process improvements to reduce the time taken to issue a product license. This process took an average of 347 days in FY 2014, and is projected to take 340 days in FY 2016 (down from 541 days in FY 2010).

APHIS partners 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 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. 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, a World Organisation for Animal Health-sponsored committee that reviews the international harmonization of technical requirements for veterinary medicinal products (both biologics and pharmaceuticals), 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. For example, biotechnology derived biologics played a key role in efforts to eradicate the pseudorabies virus (PRV) from commercial swine in the United States. The Federal-State-industry led PRV eradication program used 'marker' vaccines and companion diagnostic kits to combat the disease. The vaccine virus had a specific gene deleted so that antibodies to that gene were not produced in the vaccinated animal. The companion diagnostic kits tested for those antibodies, which would be present in an infected animal. This provided the means to differentiate vaccinated animals from infected animals, which would otherwise both test positive on a PRV antibody screening test. With the help of this technology, U.S. swine herds were recognized as PRV-free in 2004. APHIS believes that biologics derived from this technology and other modern technology will continue to make valuable contributions to the biologics industry. As another example, in June 2014, APHIS conditionally licensed the first vaccine for porcine epidemic diarrhea virus. This vaccine was manufactured using virus-like particles—a new biotechnology that has been gaining wider acceptance in the scientific community and 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 (+$133,000)

The request includes a total of $133,000 to cover increases in pay for associated employees, of which $27,000 is for the annualization of the 1 percent 2015 pay increase and $106,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$102,000)

Operating costs for the program will be reduced by $102,000.

(i) A net increase of $54,000 for the Veterinary Diagnostics program ($31,540,000 and 190 staff years available in 2015).

Laboratory and diagnostic services are an essential component 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 both direct veterinary diagnostic capabilities and assistance to other diagnostic laboratories through animal disease information, technical guidance, reagents, and reference materials.

APHIS provides national leadership in coordination of the National Animal Health Laboratory Network (NAHLN) and emergency laboratory response. The Veterinary Diagnostics program trains Federal, State, university, and foreign laboratory personnel; provides proficiency tests and reagents; and develops improved diagnostic technologies. 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.

Diagnostic testing of surveillance samples improves the security of the nation's livestock. In FY 2014, APHIS handled more than 362,000 diagnostic tests and 42,500 accessions (one or more diagnostic samples

received from the same submitter on the same day), and produced and provided more than 1,900 reagents. 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. APHIS' National Veterinary Services Laboratories (NVSL) serves as the United States' official diagnostic reference laboratory for agricultural animal diseases and also provides expertise and guidance on diagnostic techniques for these diseases both in the United States and overseas. NVSL is a World Organisation for Animal Health reference laboratory for highly significant veterinary diseases, including highly pathogenic avian influenza, anthrax, foot-and-mouth disease (FMD), exotic Newcastle disease (END), West Nile virus, and others. The program's testing services for foreign animal disease investigations are available 24 hours a day, 7 days a week.

The program provides support for public health investigations that the Food and Drug Administration and the Department of Health and Human Services Centers for Disease Control and Prevention conduct for salmonella and other zoonotic diseases. In addition, the program manufactures and distributes more than 650 reagents, many of which are not available from other sources. APHIS' laboratory diagnostic services benefit individual farmers and ranchers, State and university diagnostic laboratories, private veterinary practitioners, animal importers and exporters, researchers, government officials, and laboratories from other countries. Without APHIS' surveillance and monitoring programs, the United States' ability to prepare and respond to animal and plant health issues would be seriously compromised, increasing the likelihood of pest and disease spread and resulting in larger and more serious outbreaks.

International Organization for Standardization (ISO)-accredited bodies conduct annual peer reviews and external audits for the Veterinary Diagnostic program. Based on these reviews, APHIS takes corrective actions and monitors the implementation of improvements in support of the laboratories' internationally-recognized ISO 17025 accreditation for quality. The program also participates in proficiency panel checks on an international level 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 standardized, rapid diagnostic techniques are used, 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 for possible re-introductions to maintain readiness in case of an outbreak situation. In addition, the Food and Agriculture Organization of the United Nations has designated NVSL as a Reference Centre for FMD and other vesicular diseases of the Americas and the Caribbean, animal influenza, and END, as well as for bovine tuberculosis and Johne's disease. NVSL's services improve science-based decisions in disease detection and quarantine, which in turn result in minimizing impacts and disruptions to important domestic and international export markets. In FY 2014, 22.86 percent of the proficiency tests supplied by the NVSL were accredited by the ISO. APHIS' goal is to increase that percentage to 34.29 percent in FY 2016.

In FY 2016, the program will continue working with the NAHLN and collaborating with other USDA and U.S. government agencies on high-priority animal health issues. In addition, NVSL will continue to address needs related to bioinformatics and scientific computing. This includes both information technology infrastructure and subject matter expertise.

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.

Pay (+$230,000)

The request includes a total of $230,000 to cover increases in pay for associated employees, of which $46,000 is for the annualization of the 1 percent 2015 pay increase and $184,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$176,000)

Operating costs for the program will be reduced by $176,000.

(j) A net increase of $10,013,000 and 19 staff years for the Zoonotic Disease Management program ($9,523,000 and 45 staff years available in 2015).

The Zoonotic Disease Management (ZDM) program enhances the local, State, national, and international collaborative efforts to promote healthy animals, people, and eco-systems. This integrated approach is known as "One Health." APHIS provides national leadership and expertise in addressing the animal health component of One Health by contributing animal health expertise, infrastructure, and networks. APHIS collaboratively develops strategies, policies, and training to help animal health stakeholders effectively engage with public health counterparts, provide guidance, facilitate information exchange, and enhance responses to One Health issues. By enhancing the Agency's efforts to address the animal health component of One Health, this program protects public health and directly benefits animal health and marketability.

This program monitors national and international environments for health events that may benefit from APHIS involvement. Once events are identified, APHIS engages as the situation warrants. The scope of APHIS' activities extends beyond zoonotic agents to include food safety, antimicrobial resistance (AMR), chemical contamination of animals through the environment or feed, residues of veterinary drugs, and response during natural disasters, to impede the spread of diseases. Recent human outbreaks of Ebola, avian influenza A (H7N9), and Middle East Respiratory Syndrome highlight the challenges in the global response to emerging animal diseases with human pandemic potential. APHIS works with the Department of Health and Human Services Centers for Disease Control and Prevention to address animal components of these and other zoonotic diseases and provides leadership in the North American Plan for Animal and Pandemic Influenza. In addition, APHIS participates in collaborative efforts and activities to prevent outbreaks of salmonella infections in humans associated with contact with live poultry from mail-order hatcheries. Salmonella bacteria cause an estimated 1.2 million human illnesses; 19,000 hospitalizations; and, 370 deaths annually in the United States.

The ZDM program works with other USDA agencies on AMR and supports the Food and Drug Administration (FDA) as it protects the viability of medically important antibiotics. By collecting information related to antimicrobial use practices on livestock and poultry operations, APHIS provides important data for the FDA and other agencies. APHIS' antibiotic resistance testing for organisms of public health importance on livestock and poultry operations also provides critical information for these agencies. Other Federal agencies strongly support APHIS' role in this effort.

Increase related to AMR (+$10,000,000 and 19 staff years)

AMR is a global issue affecting both public and animal health. There is growing concern that bacteria that cause disease in both people and animals are developing more resistance to the antibiotics used for treatment. The issue has become increasingly urgent as the number of organisms resistant to antimicrobial drugs has grown, the availability of new antimicrobial drugs has slowed or stopped and global interconnectedness has increased. Six USDA agencies — APHIS, the Agricultural Research Service, the Economic Research Service, the Food Safety and Inspection Service, the National Agricultural Statistics Service, and the National Institute of Food and Agriculture — participate in AMR mitigation efforts. APHIS works to characterize the health and management of livestock and poultry on farms, including the use of and resistance to antibiotic drugs, and the prevalence of zoonotic pathogens. In addition, APHIS

evaluates relationships between management practices, animal health practices, and on-farm antimicrobial use and resistance.

Current understanding of the factors that contribute to AMR levels in various settings and the specific role of antimicrobial use in agriculture in the selection for AMR bacteria remains incomplete. The Agency's expertise in collecting on-farm surveillance data and its relationships with producers has prompted the FDA to request our assistance. For FY 2016, APHIS is requesting $10 million to provide critical on-farm surveillance, develop new and improved methods and tools to measure antimicrobial drug use by livestock and poultry producers, and develop education and outreach materials to ensure the judicious use of antimicrobials. With increased 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. In addition, the Agency's funding request supports the National Strategy for Combatting Antibiotic-Resistant Bacteria. The National strategy covers a broad array of potential government efforts to address AMR in human and animal health. Items in the strategy relevant to APHIS include plans for surveillance of AMR at the farm level, collection of antimicrobial drug use data, and work to promote stewardship of antimicrobial drugs by animal owners and veterinarians.

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.

Pay (+$55,000)

The request includes a total of $55,000 to cover increases in pay for associated employees, of which $11,000 is for the annualization of the 1 percent 2015 pay increase and $44,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$42,000)

Operating costs for the program will be reduced by $42,000.

A net decrease of $20,039,000 and a net increase of 8 staff years for Safeguarding and Emergency Preparedness/Response – Plant Health

(k) A net increase of $2,430,000 and 19 staff years for the Agriculture Quarantine Inspection program ($26,900,000 and 360 staff years available in 2015).

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 these pests are easily carried long distances on fruits and cut flowers 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 11.32 million passengers in FY 2014). 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 Hawaii, the State Department of Agriculture conducts nursery inspections and certifies nursery stock for shipment to the U.S. mainland.

Increase for Pre-Departure Inspections ($2 million and 19 staff years)

This 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. 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 9.93 percent over the past 5 years. Additionally, the program has aging equipment, such as x-ray machines, that are beyond their normal life cycle, risking breakdowns that could also cause inefficiency and long lines for passengers.

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. The increase would allow APHIS to increase staffing at peak times, replace aging equipment, and increase the number of canine teams used in inspection operations. Canine teams allow for effective and efficient inspections of passenger bags, cargo, and mail. 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 should increase the compliance rate in FY 2017 and beyond.

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.

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.

Health Benefits for seasonal employees (+$912,000)

The Office of Personnel Management issued a final rule that modified eligibility for coverage under the Federal Employees Health Benefits Program to certain temporary, seasonal, and intermittent Federal employees. The Budget includes $912,000 for this cost.

Pay (+$435,000)

The request includes a total of $435,000 to cover increases in pay for associated employees, of which $88,000 is for the annualization of the 1 percent 2015 pay increase and $347,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$917,000)

Operating costs for the program will be reduced by $917,000.

(l) A net decrease of $3,326,000 for the Cotton Pests program ($11,520,000 and 58 staff years available in 2015).

The Cotton Pests program, in cooperation with States, the cotton industry, and Mexico, strives to eradicate 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 has had a longstanding partnership with the cotton industry. APHIS and State and industry cooperators have eradicated boll weevil from more than 99.5 percent of U.S. cotton acreage, dramatically reducing growers' production and control costs. We have also helped to protect the environment as eliminating boll weevil has resulted in reducing by one third the volume of pesticide used in all U.S. agriculture. 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.

As previously mentioned, Texas is the only remaining State with boll weevil populations, which are located in the southern half of the Lower Rio Grande Valley (LRGV). This area is a concern due to tropical storms and high winds that impact it and neighboring areas in the Mexican State of Tamaulipas, along with security concerns related to violence that interrupt trapping and treatment activities. APHIS is working with an International Technical Committee (including U.S. and Mexican representation) to develop strategies to eradicate boll weevil from the LRGV and neighboring Tamaulipas. Eradication of boll weevil involves mapping, trapping, timely treatments, training, communications, oversight, and quality control. In FY 2013, APHIS provided two employees to help oversee boll weevil treatment operations in Tamaulipas. To date, these efforts have resulted in a 92 percent reduction in the total boll weevil captures in Tamaulipas, Mexico, and a 69 percent reduction in the LRGV. In addition, the program has eradicated the PBW from California, New Mexico, large areas of Arizona, the El Paso region of Texas, and is starting multi-year surveys to confirm that PBW has been eradicated from the last remaining areas of Arizona. After the boll weevil and PBW are eradicated from an area, cotton growers experience a 40-100 percent reduction in their overall use of insecticides, thus reducing production costs. The program's efforts have helped cotton farmers become more competitive in the global market, primarily by reducing production costs and increasing yields.

There were no detections of non-sterile PBWs in the cotton producing areas, making the 2014 cotton-growing season the first year without detection in the four-year confirmation of eradication process. If there are no detections of non-sterile PBWs in the next three years, the Agency expects to be able to confirm that PBW has been eradicated from Arizona at the end of the 2017 season. In FY 2016, APHIS would maintain limited sterile moth production to enable rapid response to any PBW outbreaks. APHIS will continue addressing boll weevil in the LRGV, but does not expect to eradicate the pest until Mexico eradicates the pest on its side of the border. APHIS will continue conducting eradication activities on the U.S. side to prevent pest populations from expanding. APHIS expects that cooperators will increase contributions to conduct these activities at the appropriate level. Once the boll weevil and PBW have been

fully eradicated, APHIS and cooperators will transition to the long-term post-eradication phase of the program, which consists of surveillance to check for re-infestation of U.S. cotton acreage and protection of the investment made in this eradication effort.

Reduction related to progress toward eradicating PBW (-$3,342,000)

The program will require fewer resources in FY 2016 following eradication of PBW. The program will continue addressing the boll weevil in areas of Texas near the border with Mexico.

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.

Pay (+$70,000)

The request includes a total of $70,000 to cover increases in pay for associated employees, of which $14,000 is for the annualization of the 1 percent 2015 pay increase and $56,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$54,000)

Operating costs for the program will be reduced by $54,000.

(m) A net increase of $50,000 for the Field Crop and Rangeland Ecosystem Pests program ($8,826,000 and 58 staff years available in 2015).

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 worth more than $77 billion in FY 2013 and covering more than 150 million acres 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. APHIS is finalizing a programmatic consultation with the U.S. Fish and Wildlife Service covering 17 western States where the program conducts GMC activities. This consultation allows APHIS to comply with the provisions of the Endangered Species Act and addresses the effects of GMC treatments on 237 threatened or endangered species. It identifies protective measures the program uses to avoid impacts to threatened and endangered species, including the use of buffer zones around the species' habitat. APHIS continues to implement improvements for the Grasshopper program identified through an APHIS internal review. These include increasing

communication with Federal land managers and cooperators and developing an overall program strategic plan. APHIS' GMC program monitors and protects 661 million acres of rangeland each year worth a total of nearly $8.7 billion. Predictive models suggest that APHIS' IFA program is preventing up to 10 additional States from becoming infested. 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. APHIS will continue conducting surveys and other activities to manage these pests in FY 2016.

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 accepted by countries importing U.S. wheat due to our quarantine and survey efforts. These certificates reassure trading partners about 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 directly impacting 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 four States to just 240,000 acres in Arizona since 1996. APHIS will continue survey and regulatory activities aimed at keeping KB from causing damage in FY 2016.

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 54 percent of the program's resources support salaries and benefits of APHIS' employees and 30 percent supports cooperators' operations. Another 10 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.

Health Benefits for seasonal employees (+$95,000)

The Office of Personnel Management issued a final rule that modified eligibility for coverage under the Federal Employees Health Benefits Program to certain temporary, seasonal, and intermittent Federal employees. The Budget includes $95,000 for this cost.

Pay (+$70,000)

The request includes a total of $70,000 to cover increases in pay for associated employees, of which $14,000 is for the annualization of the 1 percent 2015 pay increase and $56,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$115,000)

Operating costs for the program will be reduced by $115,000.

(n) A net increase of $58,000 for the Pest Detection program ($27,446,000 and 145 staff years available in 2015).

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. This information serves as the basis of 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. 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. In FY 2014, the program and its cooperators conducted surveys for 220 individual pests, pathogens, and noxious weeds, exceeding its goal of 200. The program also conducted 116 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 2016, 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 conduct 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.

Health Benefits for seasonal employees (+$47,000)

The Office of Personnel Management issued a final rule that modified eligibility for coverage under the Federal Employees Health Benefits Program to certain temporary, seasonal, and intermittent Federal employees. The Budget includes $47,000 for this cost.

Pay (+$175,000)

The request includes a total of $175,000 to cover increases in pay for associated employees, of which $35,000 is for the annualization of the 1 percent 2015 pay increase and $140,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$164,000)

Operating costs for the program will be reduced by $164,000.

(o) A net increase of $48,000 for the Plant Protection Methods Development program ($20,686,000 and 141 staff years available in 2015).

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' efforts to safeguard agriculture and natural resources from invasive plant pests and to support trade by developing tools to enable or improve the detection of exotic pests in survey programs; developing molecular diagnostic tests and identification tools for pest identification in support of domestic programs and imports of plants for planting; developing integrated pest management methods, including biological control, to help eradicate or manage invasive pests; conducting pest risk analysis to address phytosanitary requirements for imports, and support for exports of U.S. agricultural products; and developing phytosanitary commodity treatments to support interstate and international trade.

APHIS provides coordination for national pest detection surveys and pest management programs, which depend on accurate and effective tools. The PPMD program develops pest trapping, identification and survey technologies that support these efforts. The program also develops pest management techniques that APHIS national programs use to manage or eradicate invasive pest threats. For example, PPMD staff developed survey and management methods for the European grapevine moth when it was first detected that allowed APHIS and cooperators to reduce populations by more than 99 percent within the first year. PPMD also provided the program with updated recommendations on survey methods and mating disruption treatments based on recent field trials to improve effectiveness of the program.

The PPMD program partners with States, universities, Tribes, other Federal agencies, and international partners to accomplish its goals. 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. 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 tap into scientific expertise or infrastructure that is not available within the Agency. This is particularly necessary when APHIS needs to quickly access scientific knowledge on a new pest issue to develop exclusion, detection and management techniques.

To hold parties accountable, PPMD works closely with cooperators to communicate goals, develop work plans and establish timelines for the delivery of agreed upon products. The program has consistently met or exceeded its performance measure targets. For example, the program met its 2014 target by developing,

implementing or completing technology transfer for 77 biological control projects. The program also met 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 2016. Without this program, APHIS would not be able to provide the tools needed to carry out plant pest eradication and detection programs. In FY 2016, the program and its cooperators will develop a minimum of five new/improved regulatory treatments for commodities of trade.

Health Benefits for seasonal employees (+$23,000)

The Office of Personnel Management issued a final rule that modified eligibility for coverage under the Federal Employees Health Benefits Program to certain temporary, seasonal, and intermittent Federal employees. The Budget includes $23,000 for this cost.

Pay (+$170,000)

The request includes a total of $170,000 to cover increases in pay for associated employees, of which $34,000 is for the annualization of the 1 percent 2015 pay increase and $136,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$145,000)

Operating costs for the program will be reduced by $145,000.

(p) A net decrease of $10,818,000 and 7 staff years for the Specialty Crop Pests program ($156,000,000 and 688 staff years available in the 2015).

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 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, 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, prevents damage to specialty crop production (helping to ensure the availability of fresh fruits and vegetables), and protects 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 billion in FY 2012 (based on internal analysis using Census of Agriculture data). APHIS is currently using SCP resources to address the following pests and diseases: exotic fruit flies, a variety of citrus diseases (including huanglongbing, or citrus greening), the glassy winged sharpshooter (GWSS), the light brown apple moth (LBAM), European grapevine moth (EGVM), and pale cyst nematode (PCN), 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). Without the SCP program, a variety of export markets for U.S. specialty crops would be at risk—the program protects trade worth more than $8.4 billion.

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) 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 pest in Mexico and Central America. Medfly has been recorded infesting 300 cultivated and wild fruits. In FY 2014, the program produced one billion sterile Medflies per week for release in vulnerable areas of the United States and to maintain the barrier in Mexico and Central America. Without the program's efforts, many important crops would become impossible to grow due to fruit fly infestations. APHIS will continue these activities in FY 2016.

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 687 square miles remain quarantined out of the 85,000 square miles initially impacted. With only a single moth detected in FY 2014, APHIS expects zero detections in FY 2015. APHIS will continue surveys in FY 2016 and several additional years to confirm that it has been eliminated. Eradicating this pest will dramatically lower growers' production costs and protect or expand 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.

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.

An increase for HLB MAC ($3 million in new funding, plus $4.5 million in redirected funding)

HLB has now infected all of Florida's citrus groves, has greatly reduced acreage and production, and has cost Florida an estimated $3.6 billion in lost revenue and more than 6,600 jobs since 2006. California's citrus industry, with an estimated annual production value of $1.5 billion, is at risk since the vector that carries HLB is now widespread in urban areas of southern California. Additionally, HLB has now been detected in Texan citrus growing areas.

In 2013, USDA established the HLB MAC comprised of Federal, State, and industry representatives, to coordinate development of tools and techniques to address this devastating disease. While researchers are working to find long-term solutions to HLB, growers need immediate tools and solutions. With $20 million in 2-year funding provided for fiscal years 2014 - 2015, the HLB MAC is funding projects to control the Asian Citrus Psyllid (ACP) and HLB in infected groves or trees to provide tools for the citrus industry to manage the disease and mitigate its impact. APHIS is requesting $7.5 million to continue this effort in FY 2016. The $7.5 million consists of an increase of $3 million and a shift of $4.5 million from

Citrus Health Response Program activities to this high-priority initiative to find tools to help growers deal with HLB. With this funding shift, APHIS will reduce field activities such as surveys for citrus greening. Focusing the additional resources on tools to fight citrus greening now will help citrus growers through this crisis period and hopefully provide techniques that help them remain in business. The MAC Group is funding research to quickly combat HLB; projects include biological control methods (using specialized wasps to control ACP populations), 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 plan to increase the number of biological control agents reared and released from approximately 3.5 million per year in FY 2014 to more than 10 million per year by the end of FY 2016. The program is also developing new methods for field rearing biological control agents in ACP-infested areas, which will be more efficient than rearing the insects in a laboratory setting and delivering them to impacted areas. Biological control shows promise for managing ACP, which spreads HLB, in 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. 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. Continued funding in FY 2016 will allow APHIS to continue successful projects and identify additional promising tools and techniques. If these efforts are discontinued, some promising tools may not be available for growers to use in the field to protect their citrus groves and the livelihoods of those employed in the citrus industry.

Reduction to adjust cost-share rates (-$14,107,000)

APHIS is requesting an overall decrease of $14.107 million for the SCP program in FY 2015 related to cost-sharing adjustments for three pest and disease programs that will allow for more equitable Federal contributions to the programs. The decrease includes:

- A reduction of $7.950 million for the Citrus Health Response Program, which would reduce the Federal cost-share rate from 94 percent to 78 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 $2.369 million for the GWSS program, which would reduce the Federal cost-share rate from 54 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 $3.788 million for the LBAM program, which would reduce the Federal cost-share rate from 100 percent to 60 percent. Since FY 2011, cooperators have contributed $311,000 cumulative for this program. Its benefits include keeping export markets open for many fruits and vegetables from areas quarantined because of LBAM. Accordingly, additional State contributions would be more equitable.

Health Benefits for seasonal employees (+$267,000)

The Office of Personnel Management issued a final rule that modified eligibility for coverage under the Federal Employees Health Benefits Program to certain temporary, seasonal, and intermittent Federal employees. The Budget includes $267,000 for this cost.

Pay (+$825,000)

The request includes a total of $825,000 to cover increases in pay for associated employees, of which $168,000 is for the annualization of the 1 percent 2015 pay increase and $657,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$803,000)

Operating costs for the program will be reduced by $803,000.

(q) A net decrease of $8,481,000 and 4 staff years for the Tree and Wood Pests program ($54,000,000 and 319 staff years available in 2015).

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. For example, in States such as Ohio, New York, and Massachusetts, ALB threatens the forest-based manufacturing and forest-related tourism and recreation economy, valued at some $35 billion. 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. Such losses, if unchecked, could cost local governments up to $1.7 billion in tree damage and removal expenses and another $830 million in losses to residential property values. 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. For example, APHIS and cooperators have modified ALB survey and control protocols, resulting in more efficient use of resources required to eradicate the pest. In addition, the program is examining new detection technologies and evaluating an extended timeframe for the application of preventive treatments to potentially saving funds by treating less frequently to achieve the same results.

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 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 would 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 2016, 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. In FY 2014, APHIS declared ALB eradicated from Norfolk and Suffolk Counties in and around Boston, Massachusetts, and plans to declare Eastern Queens eradicated by FY 2015.

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 (-$8,608,000)

APHIS is requesting an overall decrease of $8.608 million for the TWP program in FY 2016 related to cost-sharing adjustments for two pest and disease programs that will allow for more equitable Federal contributions to the programs. The decrease includes:

- A reduction of $6.583 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 2014 while APHIS spent $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 $2.025 million for the EAB, which would reduce the Federal cost-share rate from 97 percent to 75 percent. In FY 2014, 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.

Health Benefits for seasonal employees (+$105,000)

The Office of Personnel Management issued a final rule that modified eligibility for coverage under the Federal Employees Health Benefits Program to certain temporary, seasonal, and intermittent Federal employees. The Budget includes $105,000 for this cost.

Pay (+$382,000)

The request includes a total of $382,000 to cover increases in pay for associated employees, of which $77,000 is for the annualization of the 1 percent 2015 pay increase and $305,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$360,000)

Operating costs for the program will be reduced by $360,000.

A net decrease of $9,392,000 and 30 staff years for Safeguarding and Emergency Preparedness/Response – Wildlife Services

(r) A net decrease of $9,444,000 and 30 staff years in the Wildlife Damage Management program ($90,027,000 and 620 staff years available in 2015).

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 agriculture by protecting livestock from predators, managing invasive species such as feral swine and beaver damage, conducting a national rabies management program, and managing wildlife species and diseases. In FY 2014, APHIS provided technical assistance, or information and support, for more than 61,000 projects.

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 2014, APHIS' WDM program helped more than 11,000 producers in the western United States with livestock valued at more than $2.3 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 2014, APHIS intercepted approximately 19,000 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 38 States in the last 20 years, making them one of the fastest growing invasive species in the United States. In FY 2014, APHIS began implementing a national, cooperative cost-share program to 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. The National Feral Swine Damage Management program has identified 24 States where feral swine can be eliminated, with the goal of eliminating feral swine from 10 of these States over the next 12 to 14 years. During the first year of the program, APHIS State-level program operations, entered into cooperative agreements to remove animals on approximately 110 million acres, collected biological samples to monitor for diseases of national concern, and initiated collaborative efforts with Mexico and Canada to monitor feral swine along the borders.

In FY 2014, APHIS distributed more than 8.1 million oral rabies vaccine baits over more than 140,000 square kilometers in 15 States. The cooperative WDM program has eliminated canine rabies in coyotes in south Texas (allowing the United States to gain canine rabies free status in 2007) and has prevented raccoon rabies from spreading beyond the Eastern United States. In addition, no cases of gray fox rabies in Texas have been reported since 2009.

The Agency's WDM activities benefit the American public as a whole by monitoring wildlife across the country for other diseases that help protect animal and human health. In FY 2014, the program collected more than 47,000 wildlife samples to test for a number of diseases such as West Nile Virus, salmonella and avian and swine influenza.

APHIS' WDM activities benefit private landowners, businesses, and Federal, State, county, and city government offices. They enable farmers and ranchers to remain profitable, feed consumers here and abroad, and contribute to their communities. Without these important 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 $2,564,000 for the oral rabies vaccination program

In FY 2016, 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 $23.5 million to conduct rabies programs in FY 2016.

A decrease of $7,117.000 for activities related to the protection of natural resources

APHIS proposes to reduce funding available for activities to protect natural resources and public roadways from problematic wildlife, while allowing APHIS to focus on higher priority Agency activities. Specifically, the proposed decrease of $7,117,000 would reduce the Agency's current activities related to the protection of natural resources, and wildlife that cause damage to public and private lands, and damage infrastructure. The cooperators that directly benefit from these services will need to increase contributions to achieve the same level of program operations. APHIS is committed to working with affected States and localities to provide these services on a reimbursable basis.

Health Benefits for seasonal employees (+$173,000)

The Office of Personnel Management issued a final rule that modified eligibility for coverage under the Federal Employees Health Benefits Program to certain temporary, seasonal, and intermittent Federal employees. The Budget includes $173,000 for this cost.

Pay (+$751,000)

The request includes a total of $751,000 to cover increases in pay for associated employees, of which $152,000 is for the annualization of the 1 percent 2015 pay increase and $599,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$687,000)

Operating costs for the program will be reduced by $687,000.

(s) A net increase of $52,000 for the Wildlife Services Methods Development program ($18,856,000 and 163 staff years available in 2015).

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. The WSMD program tests between 14 and 16 new methods each year.

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. Finally, the program explores ways to reduce the spread and transmission of zoonotic diseases; develops disease diagnostic methods; 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 2014, the program conducted 329 studies and published 83 scientific studies in 47 different professional scientific journals and book chapters. Without funding available, 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.

Health Benefits for seasonal employees (+$16,000)

The Office of Personnel Management issued a final rule that modified eligibility for coverage under the Federal Employees Health Benefits Program to certain temporary, seasonal, and intermittent Federal employees. The Budget includes $16,000 for this cost.

Pay (+$198,000)

The request includes a total of $198,000 to cover increases in pay for associated employees, of which $40,000 is for the annualization of the 1 percent 2015 pay increase and $158,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$162,000)

Operating costs for the program will be reduced by $162,000.

A net increase of $66,000 for Safeguarding and Emergency Preparedness/Response – Regulatory Services

(t) A net increase of $40,000 for the Animal and Plant Health Regulatory Enforcement program ($16,224,000 and 142 staff years available in 2015).

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 and 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 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 back log 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. At the end of FY 2014, 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). In 2014, APHRE issued 792 Official Warnings and 1,702 pre-litigation settlements that resulted in the collection of $1,194,688 in stipulated penalties and APHRE obtained administrative orders assessing $1,014,111 in civil penalties.

Approximately 88 percent of funds will be 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 (+$172,000)

The request includes a total of $172,000 to cover increases in pay for associated employees, of which $35,000 is for the annualization of the 1 percent 2015 pay increase and $137,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$132,000)

Operating costs for the program will be reduced by $132,000.

(u) A net increase of $26,000 for the Biotechnology Regulatory Services program ($18,875,000 and 92 staff years available in the 2015).

The biotechnology industry—valued worldwide at $246 billion—develops innovative products of modern biotechnology [including genetically engineered (GE), organisms] that can greatly benefit the public. For example, GE crops can increase yields or decrease crop losses due to pests and diseases and create consumer value-added products such as healthier product composition. Every day, American farmers and consumers benefit from the role USDA has played 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." According to the USDA Economic Research Service (ERS) July 2014 statistics, more than 94 percent of the soybean, 93 percent of the corn, and 96 percent of the cotton grown by U.S. farmers were derived from biotechnology. Agricultural biotechnology gives farmers and producers more tools to safeguard crops against pest and disease issues and contributes to the adoption of no-till and low-till agricultural practices. 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.

However, before certain products can be brought to market, it is essential to demonstrate - through rigorous, scientific review - that they do not pose a plant pest risk to America's agricultural and natural resources. USDA's Biotechnology Regulatory Services ensures that developers, growers, and others take steps to prevent unauthorized release or persistence in the environment until the product has been

determined to not pose a plant pest risk. These controls instill confidence in the public and in our trading partners that GE products produced in America do not pose risks to plant health. USDA requires developers to apply for a permit or notification before the importation, interstate movement, and field release—or "introduction"—of GE organisms that may pose a plant pest risk. Once a developer can demonstrate that a GE crop does not pose a plant pest risk, the developer can petition USDA to seek nonregulated status. In FY 2014, USDA made seven determinations of nonregulated status, surpassing its goal of five determinations, bringing the total to 109 petitions. Determinations of nonregulated status have been an immense benefit to farmers, producers, and consumers. USDA expects the number of determinations of nonregulated status to increase from 109 in FY 2014 to 119 in FY 2016.

USDA is committed to ensuring our regulatory actions are supported by the best science available. The science-based approach allows for the safe development and use of agricultural products that provide increased production options for agricultural growers around the world. USDA is dedicated to effective and timely review of authorization and petition processes. In FY 2012, USDA implemented changes to its petition review process and announced its goal to complete petition reviews within a target of 13 to 15 months. In FY 2014, USDA made substantial progress toward that target. Petition reviews took, on average, 648 fewer days than they did in 1999-2012 [for petitions that did not require an environmental impact statement (EIS)]. The review period is longer for those petitions where USDA determined the need to prepare an EIS because of the likelihood of significant impacts to the environment as defined in the National Environmental Policy Act (NEPA) and Agency NEPA implementing regulations. USDA expects to complete the remaining backlogged petitions in FY 2015 and meet its target timelines for petitions submitted in FY 2016.

In FY 2014, USDA authorized 2,132 new permits and notifications at 11,265 locations in the United States, and conducted more than 700 site inspections. Of those sites inspected in FY 2014, approximately 99 percent were in compliance with USDA biotechnology regulations. In the wake of several significant compliance incidents in FY 2013 and 2014, USDA undertook efforts to better understand and respond to issues uncovered in its response to compliance incidents such as the Oregon and Montana wheat incidents. In FY 2015, USDA kicked off a business process improvement (BPI) aimed at standardizing and formalizing the timely review and analysis of planting and volunteer monitoring reports. This BPI effort will inform and optimize decision making around compliance oversight and likely direct Agency resources to the inspection and oversight of those field trials that pose the biggest risks.

In FY 2016, USDA will enhance its oversight of GE organisms through increased compliance inspections of field trials, and adopt new practices designed to uncover and address field trials that are not in compliance with the USDA requirements to ensure confinement. Additionally, USDA will continue its ongoing partnerships with State departments of agriculture. The program partners with the National Plant Board to allow State inspectors to conduct inspections of field release sites. This partnership contributes to cost-effective use of resources, as the States often have staff located in the areas where the inspections occur.

In addition to compliance efforts, USDA provides compliance assistance and other outreach to the biotechnology community to ensure understanding of regulatory requirements. During FY 2014, the Agency continued the Biotechnology Quality Management System (BQMS) program, a nonregulatory solution to facilitate compliance while raising awareness and compliance of regulatory responsibilities. In FY 2014, 21 entities voluntarily established a BQMS to manage their domestic research and development of GE organisms. In FY 2015, USDA will focus the BQMS program on those entities that are least familiar with regulatory requirements and in most need of assistance to help those entities attain compliance with BRS regulations. In FY 2016, APHIS will continue to provide compliance assistance and engage in collaborative partnerships with stakeholders to ensure effective regulatory compliance.

APHIS engages in formal and regular interactions with several key countries. These interactions help promote U.S. exports of GE products by ensuring that trading partners understand and accept the U.S. system for regulating 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 (+$112,000)

The request includes a total of $112,000 to cover increases in pay for associated employees, of which $23,000 is for the annualization of the 1 percent 2015 pay increase and $89,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$86,000)

Operating costs for the program will be reduced by $86,000.

A net increase of $26,000 for Safeguarding and Emergency Preparedness/Response – Emergency Management

(v) A net increase of $1,000 for the Contingency Fund ($470,000 and 5 staff years available in 2015).

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 is using 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 from 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 have implemented an emergency response program with a temporary quarantine covering 222,000 acres to eradicate these outbreaks. This effort involves 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 and hopefully to prevent 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 (+$5,000)

The request includes a total of $5,000 to cover increases in pay for associated employees, of which $1,000 is for the annualization of the 1 percent 2015 pay increase and $4,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$4,000)

Operating costs for the program will be reduced by $4,000.

(w) A net increase of $25,000 for the Emergency Preparedness and Response program ($16,966,000 and 90 staff years available in 2015).

The Emergency Preparedness and Response (EPR) program improves the Agency's capability to prevent, prepare, respond to, and recover from animal and plant health emergencies. These emergencies range from small-scale incidents to catastrophic events caused by various hazards, including foreign animal diseases (FADs) or pests and natural or man-made disasters. In addition, this program funds APHIS' coordination of Emergency Support Function #11 (ESF#11) – Agriculture and Natural Resources under the National Response Framework (NRF) at the national and regional level. The NRF establishes how the Federal government coordinates Federal response efforts supporting State, Tribal, and local authorities. In 2006, the Pets Evacuation and Transportation Standards Act and the Post-Katrina Emergency Management Reform Act amended the Stafford Act, which provides primary authorities for the Federal Emergency Management Agency (FEMA). Both amendments addressed assisting and accommodating household pets and service animals during natural or man-made disasters. After these Acts became law, APHIS began providing technical support to FEMA for the care of these animals. The program also oversees compliance with the Public Health Security and Bioterrorism Preparedness Response Act of 2002, which authorizes APHIS to regulate agents or toxins that threaten animals, plants, or animal and plant products (known as select agents and toxins). These actions protect 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 the latest national and international standards. This program's goal for FY 2016 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 performs reviews after exercises or actual incidents. These reviews lead to the development of corrective action plans that are then used to update national guidance documents and help States to update their response plans that steadily improve program capability.

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. While APHIS was successful in allowing many of the markets to remain in business during an outbreak of exotic Newcastle disease in 2003, these plans would allow non-infected premises and non-contaminated animal products to move more freely in the event of an outbreak. This would avoid unnecessary economic consequences and animal welfare issues. APHIS is working with State and regional partners to develop continuity plans to allow for a continuous supply of milk from farms not impacted by a FAD.

Regarding ESF#11 coordination, this program works daily with FEMA, other Federal departments and agencies, Tribes, Territories, States, and local governments to develop coordinated and integrated response plans in the event of disasters impacting agriculture, natural resources, and the care of household pets. In FY 2016, APHIS will participate in planning, training, and exercises to strengthen preparedness, continue to support response activities, and work with recovery entities to effectively transition activities into a long-term strategy for the affected communities.

The EPR program provides national leadership in managing select agents and toxins ensuring a better understanding of security, biosafety, and bio-containment concerns and practices by the scientific community. Key practices for managing the select agents and toxins are now uniform across human, animal, and plant research laboratories in the United States. The program regulates laboratories that possess, use, or transfer select agents and toxins due to the high risk created when entities possess, use, or transfer potential agents of bioterrorism. 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. Since the program began in 2002, there have been no intentional breeches of containment.

APHIS' exotic plant pest information system, PestLens, provides biological information about exotic plant pests such as distribution, host range, spread history, and control measures. Newly emerging pest information is summarized and reported through weekly notifications. The articles are then stored in PestLens, providing a conceptual framework for subject matter experts to make safeguarding decisions.

APHIS participates on the Biosurveillance Indications and Warning Analytic Community steering committee to promote greater understanding of agricultural threats across the Federal interagency community, 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 non-traditional partners to augment other APHIS global biosurveillance initiatives.

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.

Pay (+$109,000)

The request includes a total of $109,000 to cover increases in pay for associated employees, of which $22,000 is for the annualization of the 1 percent 2015 pay increase and $87,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$84,000)

Operating costs for the program will be reduced by $84,000.

(2) A net increase of $5,550,000 and 4 staff years for Safe Trade and International Technical Assistance:

(a) A net increase of $5,526,000 and 4 staff years for the Agriculture Import/Export program ($14,099,000 and 92 staff years available in 2015).

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 and negotiations 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, taken or traded in violation of domestic or international laws. The Lacey Act requires a declaration for imported shipments of most plants or plant products. 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 process minimizes the risk of introducing animal diseases through imports. In FY 2014, APHIS completed several evaluations that were published in the *Federal Register*. These evaluations involved recognizing Saudi Arabia as free of African Horse Sickness and the Patagonia region of Argentina as free of foot-and-mouth disease (FMD). APHIS also evaluated the risk presented by the import of meat and meat products under certain conditions, and proposed allowing the import of fresh/frozen beef under certain conditions from 14 states in Brazil and northern Argentina. Similarly, APHIS proposed conditions for the importation of pork and pork products from Mexico. APHIS also concurred with the World Organisation for Animal Health classifications of several countries for their bovine spongiform encephalopathy (BSE) comprehensive rule. The new classifications further facilitated trade between the United States and the other countries. In March 2014, APHIS implemented a rule that closely aligns its import regulations with this rule. In addition, APHIS addressed import issues related to live animals and animal products at the ports, especially with regard to facilitating cattle imports from Mexico. In FY 2014, APHIS received 15,069 applications for import permits involving live animals, animal products, organisms and vectors, and select agents. Of these applications, the Agency issued 11,666 permits. The Agency ensures that import regulations are effective and science-based. For example, based on a risk assessment and evaluation of State regulations, APHIS lifted the Viral Hemorrhagic Septicemia Federal Order, no longer restricting the importation of certain fish species from Ontario and Quebec, Canada into the United States. APHIS also published a proposed rule to recognize the State of Sonora in Mexico as free of fever ticks, and to establish an exemption from certain tick treatment requirements. In December 2013, APHIS published a proposed rule to allow fresh/frozen beef with FMD mitigations to be imported from 14 States of Brazil.

Exports

APHIS estimated the value of new or maintained export markets for animals and animal products to be approximately $1.6 billion for FY 2013 (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 2014, APHIS negotiated, or re-negotiated, 113 export protocols for animal products (22 new markets, 30 expanded markets, and 61 retained markets), and 103 export protocols for live animals (31 new markets, 26 expanded markets, and 46 retained markets). Also, in FY 2014, APHIS opened new markets for cattle to Ukraine, Egypt, Thailand, and Trinidad. The Agency also maintained export markets for live swine to China, the European Union (EU), Ecuador, Japan, Korea and Mexico by negotiating additional requirements to address the outbreak of porcine epidemic diarrhea virus in the United States. In addition, APHIS eliminated BSE-related restrictions on U.S. exports of live cattle to Pakistan and beef or other commodities to Hong Kong, Mexico, Singapore, Vietnam, Korea, China, Thailand, Ecuador, Indonesia, Uruguay, Guatemala, El Salvador, Peru, Barbados, Malaysia, Argentina, Korea, Peru, and Brazil. APHIS reopened poultry exports from several States to Japan, China, French Polynesia, the Philippines, Hong Kong, Singapore and Taiwan. APHIS conducted voluntary inspections of more than 500 U.S. manufacturing facilities to maintain, expand, or open export markets in many countries, including the EU, 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 Canada, Mexico, Morocco, Peru, Thailand, Korea, EU, Japan, Turkey, Taiwan and Ukraine. APHIS also developed

information packages and questionnaire responses from various countries to maintain, expand, or open export markets.

Concerns over avian influenza and exotic Newcastle disease have caused some countries to refuse to allow imports of fresh, frozen, and chilled poultry from the United States. APHIS has been actively engaged with the Office of the United States Trade Representative and USDA's Foreign Agricultural Service to ensure that U.S. poultry and poultry products gain and retain access to foreign markets. The Agency provides information about the health status of U.S. poultry and potential situations regarding potential outbreaks of poultry diseases. Historically, detections of low pathogenic avian influenza (LPAI) in the United States have caused some foreign markets to maintain measures that impede U.S. poultry exports. Through APHIS-led efforts, however, various bilateral protocols have been established to minimize the impact of LPAI-related trade suspensions on U.S. exporters

APHIS has improved an information technology application for electronically issuing export health certificates, which currently allows for certificates to be issued for 11 commodities to 8 countries. The Agency is expanding the capabilities of the system and the numbers of certificates issued by this system, which has received extremely positive feedback from industry stakeholders.

Lacey Act

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. Among other information, the declaration must state the genus, species, and country of origin of the product being imported. APHIS is working within an interagency group representing 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, to implement the provisions. APHIS and cooperating Agencies developed an implementation plan to phase in the declaration requirement with the most complex products being added in later phases. APHIS is continuing to assemble a dedicated staff, evaluate options for storing paper declarations, provide outreach to industries and importers, and develop a web-based system for collecting declarations. Approximately 10 percent of the declarations are submitted on paper forms that require significant resources to analyze and store securely. 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.

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 (+$5,500,000 and 4 staff years)

APHIS requests an increase of $5,500,000 and 4 staff years to enhance implementation of the Lacey Act (for a total of $6.9 million). A 2012 study by the United Nations (UN) 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 maximizing the number of products subject to review. APHIS began implementing a web-based system, the Lacey Act Web Governance System (LAWGS) in September of 2014 to provide an easier, more efficient alternative for filing declarations and allow the Agency to analyze and monitor a larger portion of the declarations for compliance. Prior to September 2014, importers had to go through licensed customs

brokers to file an electronic declaration or use a paper form. APHIS now receives declarations through all three means. With current resources, APHIS focuses on managing the volume of declarations and is able to review only a very small portion of the 40,000 declarations per month that are currently collected. APHIS would use the requested increase to enhance its Lacey Act systems and analytical capabilities. This would allow APHIS to review declarations for accuracy and allow greater access declarations to law enforcement agencies conducting investigations. It would also allow APHIS to handle the expected increase in the volume of declarations as the requirement continues to be phased in for additional products. For example, APHIS would increase server capacity of LAWGS and add modules for declarations collected through the Department of Homeland Security Customs and Border Protection as well as scanned in copies of paper declarations. Additionally, the program would add analytical capabilities to allow the system to rapidly scan declarations and 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 volume of declarations, review additional declarations for errors, catalogue a backlog of paper declarations, and provide timely responses on declaration information to Federal enforcement partners requesting data to support investigations. APHIS would also use a portion of the increase to initiate a port-of-entry pilot project to enhance enforcement efforts. The port of entry pilot project would involve reviewing declarations against the actual commodity to maximize the number of products subject for review. APHIS would also use a portion of the increase to improve the ability to identify wood and wood products at ports of entry, possibly through a wood identification library to identify the genus and potentially the species as well as regional origin of wood and wood products. Funds would be used to reach out to industry and government to host workshops on best practices, international cooperation, and 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 (+$112,000)

The request includes a total of $112,000 to cover increases in pay for associated employees, of which $23,000 is for the annualization of the 1 percent 2015 pay increase and $89,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$86,000)

Operating costs for the program will be reduced by $86,000.

(b) A net increase of $24,000 for the Overseas Technical and Trade Operations program ($22,114,000 and 86 staff years available in the FY 2015).

Through the Overseas Technical and Trade Operations (OTTO) 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. APHIS' employees – including headquarters personnel, field staff, and personnel stationed in 30 countries – play a critical role in the success of these efforts. All together, these actions directly protect U.S. agriculture, expand international markets for U.S. exporters, and help generate more than 1 million jobs around the country. In FY 2014, APHIS efforts to eliminate trade barriers and to ensure that trade decisions are based on science resulted in 170 resolved SPS issues worth an estimated market value of $2.5 billion for U.S. agricultural producers.

Working with other Federal partners, such as the U.S. Trade Representative's Office and USDA's Foreign Agricultural Service, APHIS provides the technical expertise needed to successfully address the animal and plant health regulatory issues associated with bilateral and multilateral trade negotiations. APHIS places a priority on its support of ongoing negotiations for the Trans-Pacific Partnership (TPP) and the Trans-Atlantic Trade and Investment Partnership (TTIP). The TPP includes 12 Pacific Rim countries, and has the potential to expand U.S. producers' export opportunities significantly, and the TTIP would strengthen the existing U.S. relationships with the European Union. APHIS provides technical support in addressing bilateral sanitary and phytosanitary issues with TPP and TTIP partners. APHIS will continue to pursue opening new markets for U.S. agricultural exports with the Pacific Rim countries and the European Union.

Through the OTTO program, APHIS also conducts capacity building activities to reduce risks to U.S. agriculture by helping developing countries strengthen their agricultural health and risk detection systems. These activities reduce risks to U.S. agriculture and trade by assisting developing countries in addressing pest and disease threats within their borders. APHIS encourages developing countries to use the same science-based, international standards that the Agency uses to evaluate import requests, increasing their capacity to engage in safe agricultural trade and potentially allow more U.S. imports. During FY 2014, APHIS acted upon 81 requests for subject matter expertise, trainings, and other outreach-related activities. For example, APHIS provided training to a group of Central American veterinarians on diagnosis of infectious animal diseases at our Foreign Animal Disease Diagnostic Laboratory. These same veterinarians are working to detect animal diseases quickly to reduce the risk of movement of these diseases out of their countries and potentially to the United States. Over the long-term, these interactions will lead to the development of new, stable trading relationships for the United States. APHIS also supports projects related to plant health and biotechnology activities, with continued focus on the Caribbean, Central America, and support for Free Trade Agreement partners. APHIS partners with and leverages resources with a number of collaborators including the State Department, Department of Defense, and the U.S. Agency for International Development to conduct these capacity building programs.

Agricultural trade is a bright spot for the U.S. export market but 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 $2.9 billion for U.S. agricultural products in FY 2016 and facilitate the release of at least 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 (+$104,000)

The request includes a total of $104,000 to cover increases in pay for associated employees, of which $21,000 is for the annualization of the 1 percent 2015 pay increase and $83,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$80,000)

Operating costs for the program will be reduced by $80,000.

(3) A net increase of $70,000 for Animal Welfare:

(a) A net increase of $61,000 for the Animal Welfare program ($28,010,000 and 218 staff years available in 2015).

APHIS' Animal Welfare (AW) program has the unique Federal role of ensuring the humane care and treatment of the more than 2.5 million animals covered by the Animal Welfare Act (AWA). Through its on-site inspections, educational efforts and enforcement actions, the AW program ensures facilities licensed and registered by the USDA are adhering to the Federal animal welfare standards.

The Animal Welfare program assures these animals receive adequate humane care and treatment by conducting unannounced inspections to monitor compliance. During the inspection process, APHIS helps ensure that adequate housing, transport, and husbandry standards are being applied, and that animals receive proper veterinary care. In FY 2014, the program either conducted, or attempted to conduct, more than 10,000 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. More recently, APHIS began a tailored approach for engaging prospective dog dealer licensees that ensures they fully understand the AWA's requirements specific to their facility before obtaining a license. These efforts have yielded impressive results: regulated entities have maintained an average 95 percent or above compliance rate 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. APHIS implemented a new compliance initiative that provides training and resources to struggling facility owners to increase their knowledge and skills on animal welfare. In addition, APHIS promotes an enhanced cooperative relationship between the facility owner and the attending veterinarian. For those who participated in the initiative, APHIS found a 44 percent decrease in noncompliance issues identified during the inspection process in FY 2014. A greater level of compliance results in fewer non-compliances by regulated entities, decreased numbers of re-inspections by APHIS inspectors, and ultimately the improved welfare of animals.

Whenever possible, APHIS takes a coordinated 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 collaboration and the advances being made at the Center, APHIS has been able to reduce inspection frequencies (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 Animal Welfare Act – who comprise two to five percent of all licensees/registrants. APHIS exercises immediate deterrent options, such as letters of warning that may be published on the Internet. The Agency issues 400 to 600 letters of warning for regulated entities annually. 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 AW 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 (+$263,000)

The request includes a total of $263,000 to cover increases in pay for associated employees, of which $53,000 is for the annualization of the 1 percent 2015 pay increase and $210,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$202,000)

Operating costs for the program will be reduced by $202,000.

(b) A net increase of $9,000 for the Horse Protection program ($697,000 and 6 staff years available in 2015).

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 responsible horse owners and trainers will not face unfair competition from those who sore their horses and that the horses will not be subjected to the abusive practice of soring.

The Horse Protection program works collaboratively with the twelve current Horse Industry Organizations to train and license Designated Qualified Persons (DQPs) used to inspect horses for soring at all events covered by the HPA. In FY 2014, DQPs conducted 54,120 inspections of horses, and identified 310 violations at 366 horse show events.

The Horse Protection program employs its own inspectors to conduct unannounced inspections at horse shows/exhibitions/sales/auctions, as well as evaluate the effectiveness of the DQPs. In FY 2014, APHIS inspected 7,098 horses at 62 horse events. While conducting inspections, APHIS increased its use of objective diagnostic tools during inspections, including iris scanning and thermography.

Overall, approximately 39 percent of the program's funding supports salaries and benefits of personnel, 33 percent is for travel, and 25 percent is for contracts and agreements for sampling and testing of foreign substances used in soring. The remaining funding supports necessary equipment for completing programmatic functions.

Health Benefits for seasonal employees (+$20,000)

The Office of Personnel Management issued a final rule that modified eligibility for coverage under the Federal Employees Health Benefits Program to certain temporary, seasonal, and intermittent Federal employees. The Budget includes $20,000 for this cost.

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 percent 2015 pay increase and $6,000 is for the 1.3 percent increase in 2016.

Program Reduction (-$18,000)

Operating costs for the program will be reduced by $18,000.

(4) Agency-Wide Programs

(a) APHIS Information Technology Infrastructure program ($4,251,000 and 0 staff years available in 2015).

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 2014, 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 2014, 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.

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) Physical and Operational Security program ($5,146,000 and 0 staff years available in 2015).

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. For example, the program ensures that work at laboratories with sensitive material can continue without interruption from negative outside influences or threats. The program also provides protection (through a nationwide contract with a firm that employs off-duty senior law enforcement officials) for employees attending events as part of their official responsibilities, such as those attending horse shows to enforce the Horse Protection Act (HPA). In FY 2014, the program's personnel investigated 59 workplace violence allegations and 70 external threats to APHIS employees, and upgraded 84 Agency facilities with controlled access to use Federal Smart Cards for building access. Additionally, APHIS security specialists consistently investigate threats and respond to requests for protection throughout the country for APHIS veterinarians who enforce the Animal Welfare Act (AWA) and the HPA. The program provided security for APHIS employees during 27 inspections of regulated AWA entities and at 59 horse shows in 8 States, where APHIS conducted 4,768 inspections under the HPA. APHIS also worked with the Department of State to provide increased physical security measures to APHIS employees in Mexico, including improved communications and tracking technology.

APHIS works with other USDA agencies, and with 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 of the programs. In FY 2016, the POS program will continue to enhance security at APHIS' international facilities and provide protection for employees attending events such as horse shows.

In addition, 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 APHIS to help fund the construction of the NECs based on the number of authorized APHIS 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.

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.

(c) Rental and Department of Homeland Security (DHS) Security Payments ($42,567,000 and 0 staff years available in 2015).

APHIS operates approximately 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 supports rental payments associated with 237 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.

Summary of Proposed Legislation

Program: Animal Welfare

Proposal: Establish A New User Fee

Rationale: Under the Animal Welfare Act (AWA), APHIS carries out activities designed to ensure the humane care and treatment of animals covered under the 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.

Offsets: The user fee would offset a portion of the appropriation for the Animal Welfare Act program in future years.

Budget Impact: ($ in thousands)

	2015	2016	2017	2018	2019
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

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 assesses the agricultural and environmental safety of organisms derived through biotechnology and evaluates petitions for the Agency to cease to regulate such organisms according to 7 CFR Part 340. Additionally, APHIS operates a compliance and inspection program to ensure compliance with its regulations governing organisms and products derived through biotechnology.

Goal: A user fee that would enable APHIS to maintain improved biotechnology reviews in the face of an increasing workload. APHIS would like to develop legislation using, as a guide, the authorities provided to other regulatory agencies.

Offsets: The user fee would supplement current appropriations for the BRS program. There is no offset with this proposed legislation.

Budget Impact: ($ in thousands)

	2015	2016	2017	2018	2019
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

Rationale: Under the authority of the Virus-Serum-Toxin Act, 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 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.

Goal: APHIS seeks to ensure that veterinary biologic manufacturers remain in compliance with all laws, regulations, and policies. APHIS' licensing activities allow manufacturers to market their products. The user fee would recover a portion of the costs of APHIS' activities from the beneficiaries.

Offsets: The user fee would offset a portion of future appropriations for the Veterinary Biologics program.

Budget Impact: ($ in thousands)

	2015	2016	2017	2018	2019
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	2013 Actual		2014 Actual		2015 Enacted		2016 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
UNITED STATES:								
Alabama	$3,442	21	$4,413	24	$4,525	25	$4,254	25
Alaska	479	1	477	2	589	1	554	1
Arizona	10,056	74	9,738	74	20,165	81	18,956	81
Arkansas	3,453	20	4,372	25	4,659	24	4,380	24
California	71,540	114	73,839	117	102,467	127	96,327	127
Colorado	48,711	301	53,622	292	63,150	312	59,366	315
Connecticut	1,226	6	1,501	7	1,702	8	1,600	8
Delaware	966	2	824	3	677	2	637	2
Florida	41,396	238	43,423	244	65,651	242	61,717	242
Georgia	4,480	32	5,936	32	4,497	32	4,227	32
Hawaii	20,701	266	24,214	269	24,039	268	22,599	268
Idaho	8,749	86	10,222	79	14,272	95	13,417	95
Illinois	3,555	27	3,481	23	6,485	31	6,097	31
Indiana	3,495	22	3,887	22	5,952	27	5,595	27
Iowa	63,191	361	72,995	330	65,302	361	61,389	361
Kansas	3,000	23	3,750	26	4,034	25	3,793	25
Kentucky	4,683	33	4,647	25	5,481	36	5,153	36
Louisiana	2,662	21	2,993	21	3,304	23	3,106	23
Maine	1,284	8	1,294	9	1,251	8	1,176	8
Maryland	176,206	998	199,459	1,150	181,884	1,064	170,455	1,065
Massachusetts	21,684	120	21,393	96	24,280	120	22,825	120
Michigan	7,233	57	7,220	49	11,303	62	10,626	62
Minnesota	18,237	166	20,807	121	19,644	167	18,467	170
Mississippi	5,855	38	7,150	37	7,898	40	7,425	40
Missouri	6,804	51	10,495	69	5,801	51	5,453	51
Montana	5,759	41	5,218	41	4,948	41	4,651	41
Nebraska	3,714	25	3,651	24	3,527	25	3,316	25
Nevada	2,047	17	2,117	19	2,586	18	2,431	18
New Hampshire	13,222	18	13,367	16	14,733	18	13,850	18
New Jersey	4,222	22	3,757	19	6,194	24	5,823	24
New Mexico	4,531	35	4,383	15	6,890	40	6,477	40
New York	19,747	144	24,571	114	27,665	132	26,007	132
North Carolina	34,209	164	28,000	148	32,607	164	30,654	168
North Dakota	3,523	26	3,384	20	3,667	26	3,447	26
Ohio	6,536	51	23,257	60	12,346	55	11,606	55
Oklahoma	3,873	26	4,292	32	4,709	27	4,426	27
Oregon	4,975	23	5,212	26	6,880	25	6,468	25
Pennsylvania	6,468	42	7,611	42	7,803	43	7,336	43
Rhode Island	438	1	587	2	503	1	473	1
South Carolina	2,814	16	3,254	19	3,179	16	2,989	16
South Dakota	2,073	16	2,247	15	2,517	16	2,366	16
Tennessee	4,593	32	5,179	32	6,307	36	5,929	36
Texas	43,159	345	48,280	242	59,416	360	55,856	360
Utah	5,884	44	5,984	42	5,645	44	5,307	44
Vermont	1,037	7	1,239	9	1,164	7	1,094	7
Virginia	3,913	23	8,897	22	4,942	26	4,646	26
Washington	5,376	26	6,498	27	8,279	31	7,783	31
West Virginia	2,183	14	2,378	16	3,242	15	3,047	15
Wisconsin	4,727	27	4,283	29	6,940	34	6,524	34
Wyoming	3,867	30	3,592	28	4,374	33	4,112	33

State/Territory	2013 Actual		2014 Actual		2015 Enacted		2016 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
U.S. TERRITORIES:								
District of Columbia.....	21,324	106	17,965	90	18,011	104	18,116	104
Guam.....	730	-	676	-	700	-	715	-
Puerto Rico.....	7,687	108	7,938	99	9,672	114	9,707	114
Virgin Islands.....	32	-	88	-	90	-	90	-
INTERNATIONAL REGIONS								
AFRICA:								
South Africa.....	499	1	593	1	594	1	598	1
Senegal.....	414	1	329	1	329	1	330	1
Other.....	423	-	559	-	559	-	559	-
ASIA/PACIFIC:								
China.....	1,281	3	1,621	3	1,622	3	1628	3
Japan.....	888	1	872	1	872	1	875	1
South Korea.....	409	1	461	1	461	1	463	1
Other.....	1,459	2	1,674	2	1,675	4	1681	4
CARIBBEAN:								
Dominican Republic.....	408	-	585	-	585	-	587	-
Other.....	9	-	3	-	3	-	3	-
CENTRAL AMERICA:								
Guatemala.....	21,394	5	21,379	4	21,390	6	21,468	6
Panama.....	16,286	9	15,644	10	15,652	9	15,709	9
Other.....	939	1	795	-	795	1	798	1
EUROPE/NEAR EAST:								
Austria.....	208	-	210	-	210	-	211	-
Belgium.....	1,521	2	1,662	2	1,663	2	1,669	2
Other.....	934	2	1,241	2	1,242	2	1,247	2
NORTH AMERICA:								
Canada.....	221	-	93	-	93	-	93	-
Mexico.....	6,385	4	6,650	3	6,653	4	6,678	4
SOUTH AMERICA:								
Brazil.....	598	2	670	2	671	3	673	3
Chile.....	574	1	282	1	282	1	282	1
Other.....	2,254	1	2,132	1	2,133	2	2,141	2
Total direct obligations:	$812,854	4,551	$897,512	4,428	$976,033	4,748	$922,532	4,759

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)

		2013 Actual	2014 Actual	2015 Enacted	2016 Estimate
Personnel Compensation:					
Washington, DC		$79,233	$78,506	$89,472	$90,928
Field		237,698	235,517	268,417	272,785
11	Total personnel compensation	316,931	314,023	357,889	363,713
12	Personnel benefits	98,780	102,441	109,365	112,280
13	Benefits for former personnel	1,376	1,361	2,111	2,111
	Total, personnel comp. & benefits	417,087	417,825	469,365	478,104
Other Objects:					
21	Travel and transportation of personnel	15,812	19,914	21,681	21,805
22	Transportation of things	863	1,443	1,593	1,560
23	Rent payments, Communications, and Utilities	23,287	24,610	64,243	64,743
24	Printing and reproduction	669	605	608	523
25.0	Other contractual services	24,484	30,513	34,668	27,414
25.1	Contractual Services Performed by Other Federal Agencies	51,931	62,510	44,554	46,054
25.2	Related Expenditures	2,633	3,062	2,736	2,736
25.3	Repair, Alteration or Maintenance of Equipment, Furniture or Structure	5,366	6,588	6,069	6,069
25.4	Contractual Services - Other	23,996	36,306	22,183	13,443
25.5	Agreements	179,419	201,363	216,289	185,611
25.6	IT Services and Supplies	4,171	2,141	4,940	4,440
25.7	Operation and maintenance of equipment	5,394	9,160	7,952	7,452
25.8	Subsistence and support of persons	586	618	1,551	1,551
26	Supplies and materials	37,530	44,742	48,506	39,638
31	Equipment	15,230	30,171	24,519	16,813
32	Land and Structure	51	1,073	220	220
41	Grants, subsidies and contributions	3,164	1,589	1,927	1,927
42	Insurance claims and indemnities	1,150	3,245	2,395	2,395
43	Interest and Dividends	31	34	34	34
	Total, other objects	395,767	479,687	506,668	444,428
99.9	Total direct obligations	812,854	897,512	976,033	922,532
Position Data:					
Average Salary, ES positions		$163,957	$164,032	$165,672	$168,157
Average Salary, GS positions		$87,175	$87,225	$88,097	$89,418
Average Grade, GS positions		10.58	10.60	10.65	10.70

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

Shared Funding Projects
(Dollars in thousands)

	2013 Actual	2014 Actual	2015 Enacted	2016 Estimate
Working Capital Fund:				
Administration:				
Beltsville Service	$1,104	$1,047	$997	$1,013
Mail and Reproduction	138	108	131	128
Integrated Procurement	1,414	1,372	1,524	1,524
Procurement Operations	3	3	22	28
Subtotal	2,660	2,530	2,674	2,693
Communications:				
Creative Media & Broadcast Center	114	152	154	279
Finance and Management:				
NFC/USDA	1,823	2,067	2,054	2,057
Controller Operations	2,359	2,597	2,476	2,584
Financial Systems	4,033	3,606	3,683	4,332
Internal Control support Services	162	112	119	119
Subtotal	8,376	8,382	8,332	9,092
Information Technology:				
NITC/USDA	6,341	5,042	3,719	3,568
International Technology Services	85	2	3	3
Telecommunications Services	1,868	1,415	1,245	1,469
Subtotal	8,294	6,459	4,967	5,040
Correspondence Management	345	268	877	1,064
Total, Working Capital Fund	19,788	17,791	17,004	18,168
Department Shared Cost Programs:				
1890's USDA Initiatives	214	214	214	214
Advisory committee Liaison Services	23	4	6	6
Classified National Security Information	-	-	77	77
Continuity of Operations Planning	152	147	155	155
Emergency Operations Center	170	169	171	172
Facility and Infrastructure Review and Assessment	31	32	33	33
Faith-Based Initiatives and Neighborhood Partnerships	28	16	29	29
Federal bio-Based Preferred Procurement Program	25	25	-	-
Hispanic-Serving Institutions National Program	145	146	145	145
Honor Awards	3	6	6	6
Human Resources Transformation (Inc. Diversity Council)	117	125	128	129
Identity & Access Management (HSPD-12)	484	492	494	494
Medical Services	53	56	15	15
People's Garden	47	42	54	48
Personnel and document Security	151	180	153	153
Pre-authorizing Funding	249	264	272	272
Retirement Processor/Web Application	42	42	44	44
Sign Language Interpreter Services	154	91	-	-
TARGET Center	66	67	106	106
USDA 1994 Program	56	55	57	57
Virtual University	151	143	145	146
Visitor Information Center	16	17	-	-
Total, Department Shared Cost Programs	2,377	2,333	2,303	2,301
E-Gov:				
Budget Formulation and Execution Line of Business	7	7	7	7
Enterprise Human Resources Integration	183	164	154	160
E-Rulemaking	77	75	58	38
E-Training	175	203	203	203

	2013 Actual	2014 Actual	2015 Enacted	2016 Estimate
Financial Management Line of Business	13	13	12	13
Geospatial Line of Business	9	-	-	21
Grants.gov	52	-	-	-
Human Resources Line of Business	20	20	20	20
Integrated Acquisition Environment - Loans and Grants	100	139	138	138
Integrated Acquisition Environment	51	49	49	49
Total, E-Gov	687	670	641	649
Agency Total	22,852	20,794	19,948	21,118

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 (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 that 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

The national Animal Disease Traceability (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 $73 billion in 2013 (National Agricultural Statistics Service, USDA). Knowing where diseased and at-risk animals are located helps preserve animal health; reduce the number of 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 of USDA's commitment and ability to rapidly contain an animal disease event.

This Program continues to make 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 programs. At the end of FY 2014, 89 percent of States receiving cooperative agreement funds had an ADT strategic plan in place. This exceeds APHIS' target of 80 percent. The program expects to increase that percentage to 95 percent in FY 2015. Also in FY 2014, APHIS worked 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 evaluates tracing activities on an ongoing basis to measure progress. In FY 2015, APHIS will finalize the development of performance measures, using baseline values to document progress made through ADT implementation. The Agency will measure the baseline tracing capability by evaluating activities that animal health officials typically conduct during an investigation of livestock that have moved interstate.

The 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 2014, 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. Enforcing the traceability requirement on older cattle will enable APHIS to make significant progress toward program goals. APHIS will address traceability requirements for beef cattle less than 18 months of age in a separate rulemaking. No timelines have been established yet for this rulemaking as the immediate priority is to successfully implement the initial phase of the traceability program.

Information Management

The AHTS Program develops new information management systems, while maintaining and improving existing data systems and applications. APHIS makes these systems available to States and Tribal Nations, who use them to support their traceability plans and other animal health activities. In FY 2014, the AHTS Program reached full adoption of a national animal health surveillance system, known as Surveillance Collaboration Services. Using a commercial off-the-shelf product instead of developing the entire system internally is consistent with Federal government and agency initiatives for improving information technology (IT) management. This system has allowed quicker development of meaningful functionality and consolidation of existing IT systems, thereby increasing the efficiency of data captured and providing a streamlined national approach. The software is housed in a USDA enterprise data center and is available for State and Federal animal health officials in all 50 States, 2 tribal nations, Puerto Rico, and the U.S. Virgin Islands. This system has enhanced communication and data accuracy,

created significant lifecycle and maintenance efficiencies, and has made standardized data readily available. This project also provided the ability to retire several legacy IT systems, which generated savings. With many data sources from several partners, IT systems, and locations, efficient data integration has become vital. APHIS reduced the average time needed to acquire laboratory diagnostic data for all test types and species from 60 days in FY 2012 to 21 days in FY 2014. With further use of electronic reporting, the Agency hopes to reduce this timeline to seven days in FY 2015.

In FY 2013, APHIS implemented a business intelligence-reporting tool for State partners. This tool enables users without technical knowledge to extract and analyze data, and assemble reports. This tool is available for all States, Federal, Tribal Nations, and Territorial users. In FY 2014, APHIS implemented a warehouse inventory management and provisioning system at the National Center for Animal Health in Ames, Iowa, and established an inter-system communication of laboratory test results from the National Veterinary Services Laboratories information management system to the National Animal Health Laboratory Network repository. This software platform also now supports APHIS' National Veterinary Stockpile in Kansas City, Missouri.

The speed of commerce demands that information move expeditiously and efficiently to meet client expectations and demands. In FY 2014, the AHTS Program completed work to enable enhanced movement of diagnostic information specific to Swine Enteric Coronavirus Diseases (SECDs). Technical messaging of data has reduced the response time of laboratory submission reporting by five days. Also in FY 2014, the program received more than 50,000 test result messages using the Laboratory Messaging Services (LMS) technology system. This system processed more than 100,000 test result messages using electronic files sent from various diagnostic laboratories across the United States. This effort has improved the timely delivery of diagnostic information needed to further inform the decision making process.

In FY 2014, APHIS accomplished the integration of critical information from the Laboratory Messaging System (LMS) with the Emergency Management Response System, which provided more timely decision making specific to SECD and associated laboratory test results. The development of a State Animal Laboratory Messaging Service (SALMS) is in the final design stage (hosted by Cornell University) to complete the linkages and provide an end-to-end infrastructure for the electronic transfer of information. Specifically, the SALMS will provide a messaging service for all State or Federal veterinary diagnostic laboratories; create a communication path between participants for any testing service; and improve the efficiency and accuracy of information transfer. In addition, it will require that messages be in a standardized language format and require participants to create and receive messages in this format. In FY 2015, APHIS will complete a secure system-to-system connection between LMS and SALMS.

Modeling

APHIS uses models to improve our understanding of historical events, estimate future consequences, and inform strategic, logistical, and budgetary decisions by evaluating the effectiveness of varying interventions. In FY 2014, 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 alternative control strategies for feedlots infected during an outbreak, evaluated the effectiveness of movement restrictions under varying conditions of a hypothetical foot-and-mouth disease outbreak using the U.S. Animal Movement Model and the U.S. Disease Outbreak Simulation Model, developed a national-scale U.S. Standard model using *InterSpread Plus*, and collected additional cattle and swine interstate movement data. *InterSpread Plus* is computer program designed to provide a framework for modelling the spread of infectious disease among animal populations. APHIS' development and application of these models highlights the role models play in developing animal health emergency response plans and strategies.

National Veterinary Accreditation Program (NVAP)

More than 65,000 accredited veterinarians act as the first line of defense for reportable domestic and foreign animal diseases (FADs). While this represents a reduction of 6,000 veterinarians from FY 2013, the current cadre of accredited veterinarians completed more than 200,000 modules (both web-based and at veterinary conferences) of APHIS-approved supplemental training that represents roughly 160,000 hours of veterinary contact time that was

neither mandatory nor available before FY 2011. This training assures that the animal health oversight provided by today's NVAP is even better than it was when the roster of accredited veterinarians was simply larger. The voluntary NVAP authorizes private veterinary practitioners to work cooperatively with Federal veterinarians and State animal health officials to report these diseases when they occur. In FY 2014, more than 9,000 accredited veterinarians applied for renewal online, saving an estimated 8,000 staff hours that would have been needed to process paper applications. Approximately 50 percent of renewals were performed online, the same as in FY 2013. The Program anticipates an increase to 52 percent in FY 2015 and 54 percent in FY 2016. APHIS now hosts 22 web-based supplemental training modules for accredited veterinarians, and is on schedule to complete 4 additional modules in FY 2015. These training and renewal requirements provide increased knowledge of animal disease surveillance, prevention, zoonoses, and disaster preparedness. From the time training began in 2011 through December 31, 2014, accredited veterinarians completed approximately 195,000 web modules, as well as more than 15,000 modules at veterinary conferences nationwide.

2. Aquatic Animal Health

The Aquatic Animal Health Program focuses on protecting 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 on protecting the health of our nation's farmed and wild aquatic animal resources. It was developed and signed by the three Federal government agencies responsible for the national oversight of aquatic animal health (APHIS, the National Oceanic and Atmospheric Administration (NOAA), and the U.S. Fish and Wildlife Service (FWS)) 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 elements in the NAAHP and develop an implementation plan for related activities to meet objectives of the plan. In FY 2014, this program developed a 5-year business plan 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.

In FY 2014, the National Aquaculture Association (NAA) invited APHIS to help develop program standards for the health of commercial aquaculture in the United States. This approach is consistent with APHIS initiatives to use non-regulatory approaches - when appropriate - to address animal health issues. Prime examples of this type of approach include the Agency's live bird marketing system program, which resulted in standards being implemented by State agencies to prevent the spread of Avian Influenza, and the Interagency Bison Management Plan, which addresses known reservoirs of brucellosis in wild bison in the Greater Yellowstone Area through the consolidated efforts of the National Park Service, the Forest Service, and State and Tribal animal health authorities. The proposed standards align with and help to further implement the NAAHP at the commercial aquaculture production unit level. In addition, they will help better position commercial producers in domestic and international trade markets, and will help the commercial aquaculture industry demonstrate adherence to sound practices for aquatic animal health.

To identify the challenges and costs to U.S. aquaculture industries as they work to meet domestic and international requirements for the verification of aquatic animal health, this program funded a cooperative agreement to survey these issues to determine how these challenges may be overcome with aquaculture program standards and harmonization of requirements. The cooperative agreement will end by the early fall of 2015, and final reports are due in late December 2015.

After completing a risk assessment on Viral Hemorrhagic Septicemia (VHS) in FY 2014, APHIS concluded that the risk of spreading VHS would not increase significantly by removing the VHS Federal Order as long as the States with regulations in place maintain their testing requirements and movement restrictions related to VHS. Although these requirements and restrictions may vary by State, some examples include requiring individuals responsible for the movement of VHS-susceptible species to obtain a certificate stating that their fish have been tested VHS-free before movement, and enact bio-security measures to prevent the spread of VHS and other infectious pathogens. As a result, the Agency rescinded the Order in June 2014. APHIS continues to work with stakeholders to provide

guidance and promote sound biosecurity practices to prevent the spread of VHS and other aquatic animal diseases of concern.

In FY 2014, APHIS continued to work with NOAA, FWS, the U.S. Geological Survey, the States of Washington and Alaska, and the Northwest Indian Fisheries Commission on the Pacific Northwest infectious salmon anemia (ISA) surveillance project. This project is designed to determine the risk posed to wild Pacific salmon and the coastal economies. ISA has caused devastating losses in domestic and international Atlantic salmon farming operations. In FY 2014, APHIS completed a two-year ISA surveillance study involving wild and farmed salmon in Alaska and Washington State. As of November 1, 2014, all samples to date have tested negative for ISA.

In FY 2014, APHIS continued to provide confirmatory testing at the National Veterinary Services Laboratories in Ames, Iowa. In addition, the Agency made progress on an initiative to add aquatic diagnostic testing under the National Animal Health Laboratory Network (NAHLN). Phase 1 of this initiative involved inviting participating NAHLN laboratories to add protocols for VHS and ISA testing to their testing repertoire and completing proficiency testing. Fourteen of the current 62 laboratories expressed interest in participating in this initiative. These 14 laboratories were approved in April 2014, but several aspects of Phase 1, such as proficiency testing, are still ongoing and will be completed in FY 2015. In Phase 2, which will be completed in FY 2015-2016, APHIS is conducting additional outreach to other Federal and State non-NAHLN laboratories (e.g., FWS laboratories) and to private aquatic animal health testing laboratories about applying to the NAHLN. In addition, the Agency is offering "Training on Quality Management Systems" to these laboratories, depending on the number of interested parties.

In FY 2014, APHIS – in collaboration with the Virginia Institute of Marine Sciences, the Rutgers University Haskins Shellfish Research Laboratories, the New Jersey Sea Grant Consortium (NJSGC), and the Virginia Sea Grant (VASG) - convened a panel to address disease-related impediments to shellfish commerce in the eastern United States. The NJSGC and VASG work to advance the sustainability of their States' aquaculture industries. The panel is working to identify strategies to enhance regional shellfish health and industry growth. Representatives from industry, the East Coast regulatory and pathology/academic communities, APHIS, and USDA's Agricultural Research Service met to identify obstacles to effective regional molluscan aquaculture health management and to characterize several potential solutions from commercial, regulatory, and pathology/scientific community perspectives. Follow-up meetings are planned to continue this effort.

Also in FY 2014, the Aquatic Animal Health Program funded an update to the aquaculture modules for the National Veterinary Accreditation Program, and created a new module to provide veterinarians with new material to review to meet continuing education requirements as accredited veterinarians.

3. Avian Health

The Avian Health Program protects the U.S. poultry industry, valued at $44.3 billion in 2013 (USDA-NASS) 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

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 44 States participating in the AI prevention and control program. The Live Bird Marketing System (LBMS) has 38 States and the U.S. Virgin Islands participating in the AI prevention and control program. 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 96 authorized laboratories with trained technicians approved to provide diagnostic testing necessary for the NPIP. This figure represents a reduction from 129 laboratories in FY 2013. The reduction was due to some States not meeting NPIP regulatory requirements and some States consolidating their laboratory systems. State cooperators help conduct surveillance and diagnostic activities for the LBMS and the commercial poultry industry.

APHIS conducts surveillance for AI in commercial poultry under the National H5 and H7 Low Pathogenicity Avian Influenza (LPAI) Control Program, which was implemented in September 2006. 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 February 28, 2014, APHIS had performed approximately 588,000 tests for AI surveillance through the NPIP in FY 2014. Complete data for FY 2014 will be available after the cooperative agreements with States conclude on March 31, 2015.

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 February 28, 2014, the Agency performed approximately 56,000 tests for AI surveillance in the LBMS. Complete data for FY 2014 will be available after the cooperative agreements with States concludes on March 31, 2015. 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 five or eleven individual swabs pooled for a composite single sample/test.

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. In FY 2014, one detection of H5 viral RNA occurred, but no virus was isolated. In addition, only three detections of LPAI were found in backyard poultry auctions (one H5 viral RNA; one H7N2 LPAI virus and one H7N7 LPAI virus). The positive premises were depopulated, cleaned, and disinfected according to established standards.

To address AI, APHIS works to: survey, diagnose, control, and prevent the spread of all H5 and H7 AI subtypes; improve biosecurity, sanitation, and disease control in commercial poultry, the LBMS, and high-risk poultry sectors; and minimize the effects of AI on the U.S. LBMS and commercial poultry industry. Internationally, APHIS works with organizations such as the 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 2014, APHIS began 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 compartmentalization guidelines issued by OIE. If these AICCCs are 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. The NPIP held several meetings in FY 2014 with industry and the primary breeders to draft compartmentalization management guidelines and audit checklists. Establishing the H5/H7 AICCC for primary breeding turkeys and modifying the existing AICCC for primary breeding egg-type chickens and meat-type chickens could give producers additional options for international trade if the compartments are internationally recognized.

Maintaining confidence in the United States' ability to rapidly plan and respond to AI in U.S. poultry is critical. Natural and other disasters, foreign animal diseases (FADs) and emerging diseases can devastate the U.S. poultry industry. Therefore, preparedness and response planning for disasters, FADs, and emerging disease incidents are vital to protect human and animal health, the food supply, the economy, and the environment. 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 2014, APHIS funded State efforts to test for other significant poultry diseases including Mycoplasma gallisepticum, Mycoplasma synoviae, *Salmonella* pullorum, *Salmonella* enteriditis, very velogenic Infectious Bursal Disease, and Infectious Larygotracheitis. 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 September 2014, the NPIP completed a Service Review of NPIP-authorized laboratories. These reviews last a full 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. In response to increased demand and to accommodate the trained technician requirement in the Federal regulation regarding authorized NPIP laboratories, the NPIP hosted three workshops in FY 2014, compared to three in FY 2013. In addition, the NPIP is partnering with stakeholders to provide a more diverse pool of site locations and scientific expertise for future workshops.

In FY 2014, APHIS conducted several avian health activities pertaining to the "One Health" approach of enhancing State, national, and international collaborative efforts to promote healthy animals, people, and ecosystems. These activities included discussing APHIS' role in One Health and Pre-harvest Food Safety with the California Poultry Federation, incorporating comments from the Centers for Disease Control and Prevention (CDC) into an NPIP Best Management Practices handbook regarding *Salmonella* contamination at poultry hatcheries, and co-authoring several CDC publications on *Salmonella* outbreaks. Also in FY 2014, import testing consisted mainly of pet bird and psittacines (species of exotic parrots), while export testing was conducted primarily for chickens (approximately 400 tests per year). All import and export samples tested for FY 2014 were negative for AI and Newcastle Disease.

In FY 2014, APHIS continued projects to study four avian diseases (AI, Newcastle disease, arboviruses, and bacterial diseases) by collecting approximately 4,000 wild bird samples opportunistically (i.e., the sites were not selected in a statistically random manner) from across the United States for AI testing. These samples were added to the WS National Wildlife Disease Tissue Archive at Colorado State University. In addition, the Agency worked with Mississippi State University, the Washington Animal Disease Diagnostic Laboratory, Iowa State University, and the Pennsylvania Diagnostic Laboratory to genetically characterize influenza viruses in green-winged teal, blue-winged teal, northern shoveler, and gadwall ducks to improve risk assessments for poultry. Further, APHIS conducted research to assess the ability of key peridomestic vertebrate species to shed H7N9, to determine if environments contaminated with influenza by a species can transmit virus to a second species, and to evaluate resin beads for improving the detection of influenza viruses in water. In collaboration with Michigan State University and the University of Texas Medical Branch, APHIS conducted tests for Newcastle disease and select arboviruses (e.g., St. Louis encephalitis, Eastern Equine Encephalitis, West Nile virus and Turlock virus) on wild bird samples.

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 Office of the U.S. Trade Representative to maintain a coordinated, strategic approach to resolving avian health issues that affect U.S. exports. In addition, APHIS works bilaterally and closely with the FAO and other international organizations to assist with disease prevention, management, and eradication activities in regions affected with highly pathogenic AI (HPAI). Assisting other countries reduces the risk of the disease spreading from overseas to the United States. To open markets for U.S. poultry for example in Asia, APHIS negotiates protocols for trade of poultry and poultry-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 FY 2014, APHIS continued working with the CDC, the Department of the Interior (DOI), and other government agencies to monitor the H7N9 virus in China, assess potential introduction pathways, and modify preparedness and response plans if appropriate. APHIS and the DOI concluded that the risk of introduction and spread of H7N9 to the United States is low, and APHIS surveillance activities in wild birds would detect the virus should an introduction occur. In addition, USDA trade requirements will prevent the legal entry of potentially infected materials. APHIS offices in Asia help collect real-time information on avian health and the H7N9 virus. The Agency conducts

surveillance and capacity building activities, provides training, and oversees epidemiology and diagnostic testing throughout the region.

APHIS protects against the introduction of HPAI into the United States and the spread of LPAI within the United States. The Agency works with State animal health officials and the poultry industry to survey breeding flocks at slaughter plants, live-bird markets, livestock auctions, and poultry dealers. In FY 2014, APHIS worked to prevent the entry of the HPAI into the United States by initiating 14 cases involving avian health issues. Among other things, the Agency found that a passenger arriving at a U.S. port of entry failed to declare 738 vials of avian blood samples in his possession or provide necessary documentation to support the entry of the material. In addition, APHIS responded to a report of falsified certificates of veterinary inspection involving hatching eggs, and discovered nine shipments of hatching eggs exported from the United States to Russia under fraudulent health certificates, during a pause in trade pending further negotiations between the countries. The Agency also provided investigative support in connection with tracing the ownership and origin of a bird that tested positive for HPAI.

In FY 2014, APHIS continued to sponsor the Crisis Management Center for Animal Health at the Food and Agriculture Organization of the United Nations (CMC-AH). The CMC-AH 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 quickly respond to animal disease outbreaks such as AI 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. Another principal role of APHIS is to ensure 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 continue to expand their cooperating relationships and establish new partnerships.

Enhancing Coordination among State and Federal officials and Zoo personnel

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 a pilot surveillance program for HPAI 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, APHIS has supported in-person and virtual tabletop exercises evaluating the utility 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 and the Kansas Department of Agriculture to enhance outreach and communication with aviary and zoo collections geared towards developing and evaluating State guidance for disease outbreaks that addresses the special circumstances of these collections. In FY 2014, APHIS sponsored a workshop for State and Federal officials and zoo officials to discuss disease outbreak concerns for the captive wildlife community and their respective States. APHIS also supports training and certification on the National Incident Management System Incident Command System (ICS) training for zoo personnel to enhance mutual understanding and communication between zoos and emergency responders. In FY 2014, APHIS also supported in-person and real-time ICS certification designed specifically for zoo personnel. Additionally, the Agency supported an ICS training webinar for zoo personnel to ensure this training is available to those unable to travel to in-person sessions. APHIS' support of such training has encouraged the Association of Zoos and Aquariums to consider including ICS training for zoo personnel in their accreditation standards.

Modeling

APHIS uses models to improve understanding of historical events, estimate consequences, and make strategic, logistical, and budgetary decisions based on an evaluation of the effectiveness of varying interventions. In FY 2014, 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 explored control strategies for an HPAI outbreak in Minnesota when personnel or

response resources are limited. Also in FY 2014, this program addressed the maintenance and application of the North American Animal Disease Spread Model, as well as parameter development of epidemiologic models; and continued efforts of Farm Location and Animal Population Simulator model to simulate locations and populations of livestock/poultry in the U.S. in conjunction with academia. APHIS' development and application of these models highlights the role models play in developing animal health emergency response plans and strategies.

Outreach

Outreach efforts further prevent avian disease. The Biosecurity for Birds outreach campaign informs backyard poultry and pet bird owners how to prevent the introduction and spread of AI and other infectious poultry diseases. The campaign uses educational materials and social media to effectively reach the target audience. These include bilingual calendar and guidebooks, and fair packages in numerous languages. In FY 2014, the campaign hosted two webinars and concurrent Twitter chats to expand our reach. The program also added a Facebook page for *Healthy Harry* and expanded his Twitter following to more than 1,000 people. *Healthy Harry*, a character in APHIS' biosecurity for birds campaign, facilitates information sharing to prevent infectious poultry diseases.

4. Cattle Health

The Cattle Health Program protects the health of cattle and improves the quality, productivity, and economic viability of the $76 billion cattle industry (National Agricultural Statistics Service, 2012 Census of Agriculture). 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, 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.

Surveillance and Monitoring

APHIS conducts surveillance and monitoring 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. In FY 2014, APHIS conducted surveillance through the testing of cows and bulls at slaughter, first-point testing (at livestock markets, shows, sales, buying stations, etc.), whole herd and individual animal testing on-farm, and testing of cattle at rendering facilities (operations that collect dead, dying, disabled, and diseased animals). APHIS worked with States, Tribes, and producers to survey for critical cattle health diseases, including bovine tuberculosis (TB), bovine spongiform encephalopathy (BSE), and brucellosis, and for disease vectors such as the cattle fever tick (CFT).

Bovine TB primarily affects cattle, but has been reported in other animal species as well. APHIS' surveillance for this disease includes testing cattle, as well as slaughter surveillance that is conducted in conjunction with the USDA's Food Safety and Inspection Service. Since the bovine TB program began in 1917, it has markedly decreased the prevalence of the disease in U.S. livestock, and the prevalence rate in cattle has dropped from 5 percent to less than 0.001 percent. In FY 2014, 143 Federal and State inspected slaughter establishments submitted 7,712 samples for program testing. Through this surveillance, the program detected TB in 11 animals in FY 2014, three adult cattle over 2 years of age and eight cases in feeder cattle.

The Food and Drug Administration's (FDA) 1997 ban on feeding mammalian protein to ruminants has been an effective means for mitigating BSE. Removing risk materials from cattle slaughtered for human consumption further mitigates the human health risk. 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 and livestock markets, farms, rendering facilities, and diagnostic laboratories. The testing at livestock markets is done on tissue removed from down or disabled cattle that are euthanized at these markets to remove them from live

animal commerce. This approach enables APHIS to detect BSE at very low prevalence and assess any change in the BSE status of cattle. In FY 2014, APHIS tested more than 41,000 samples for BSE, with no new cases detected.

Bovine brucellosis is a serious infectious and contagious disease that significantly affects animal and public health, and national and international trade. In cattle, this disease can cause decreased milk production, weight loss, abortions, infertility, and lameness, impacting the livelihood of cattle producers and the supply of meat and dairy products available to the public. 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. Class-Free States with brucellosis in wildlife, or continued detections of brucellosis-affected herds, work with APHIS to develop and implement a State brucellosis management plan (BMP). Each BMP defines and explains the basis for the geographic 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 domestic cattle, bison, and wildlife.

In FY 2014, APHIS tested approximately 2.0 million head of cattle under the Market Cattle Identification slaughter surveillance program and an additional 96,997 head of cattle at livestock markets. APHIS 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 2014, APHIS tested 249,774 animals for such purposes. Also in FY 2014, approximately 1.9 million calves and approximately 262,296 adult cattle were vaccinated for brucellosis, and approximately 276 herds were certified as brucellosis certified-free cattle herds. In FY 2013, 539 herds were certified. As all States are now classified free, testing requirements for interstate movement have decreased. Many producers are seeing an economic benefit, since they no longer have to incur the cost of maintaining annual whole herd testing for certification. This has resulted in fewer certified-free herds. Accredited veterinarians perform most of the vaccinations and the collection of samples, with APHIS performing the rest. State laboratories test the samples.

APHIS continues to conduct surveillance and monitoring to eliminate CFT. The Agency focuses on controlling the spread of CFT, as it is the vector of bovine babesiosis, a severe disease of cattle that caused losses to the cattle industry in 1906 equivalent to more than $3 billion in today's dollars. 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 and the disease, and tick-infested white-tailed deer and exotic ungulates located near the U.S./Mexico border continue to affect the U.S. cattle population. 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 2014, APHIS conducted 30,655 inspections of individual premises for ticks, including 7,483 river trail patrols. Also in FY 2014, APHIS identified 15 newly infested premises inside the buffer zone, 4 fewer than in FY 2013. Furthermore, there were 12 newly affected premises at the end of FY 2014 outside the border – 1 higher than FY 2013. In addition, 9 of 257 stray cattle apprehended along the border were infested with CFT. None of the 40 stray horses/mules were infested.

In FY 2014, APHIS continued working with neighboring countries to prevent the entrance of cattle diseases such as bovine TB, foot-and-mouth disease, BSE, and screwworm. APHIS and its cooperators have eradicated screwworm from the United States, Mexico, Belize, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, and Panama. The program relies on field operations and sterile insect technique, whereby 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 populations of insects. The United States has access to those sterile flies in the event of an outbreak in U.S. territory. 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. APHIS produces approximately 30 million sterile flies per week at its Panama rearing facility. In FY 2014, there were six detections in the Darien Gap and no outbreaks or detections of screwworm infestations in Panama north of the barrier zone in Darien Province.

Investigation and Response Activities

The Cattle Health Program has five State TB classifications, where a higher prevalence rate results in a lower ranking and more restrictive movement requirements. The classifications are, in descending order: accredited free (AF), modified accredited advanced (MAA), modified accredited (MA), accreditation preparatory, and non-accredited. APHIS routinely uses a mix of two strategies in addressing TB-affected herds: depopulation, and test-and-removal. When determining a strategy, the Agency considers the size of the herds, potential indemnity costs compared to funds available, State and owner preferences, genetics, and a scientific model to determine the probability of removing infection.

In FY 2014, APHIS identified two TB affected herds in the United States: one dairy herd in North Dakota and one bison herd in Michigan. The North Dakota dairy did not want to depopulate the herd due to business concerns. Therefore, APHIS placed the herd on a test-and-removal 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, rather than depopulating the entire herd while mitigating the risk of transmission of tuberculosis. Because the Michigan herd was small, the program determined that depopulation was the better option. Six other herds that were detected in previous years were released from quarantine in FY 2014. Of these six, one dairy herd had been detected in FY 2004, one beef herd and one dairy herd had been detected in FY 2012, and one beef herd and two dairy herds had been detected in FY 2013. At the end of FY 2014, 48 States, 2 Territories, and 1 zone were TB AF, including Puerto Rico and the U.S. Virgin Islands. California was MAA. The MAA zone of Michigan advanced to AF, and Michigan is now composed of two classification zones: AF and MA status.

One case of brucellosis was detected in a cattle herd in FY 2014. This herd is located in Montana within the State's designated surveillance area and was detected as a result of testing for recertification of Certified Brucellosis Free Herd Status. Five other herds (two beef cattle herds and three privately owned bison herds) that were detected in FY 2011 (two herds), FY 2012 (two herds), and FY 2013 (one herd) remain under quarantine with affected-herd management plans, including movement controls and additional herd testing. 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. APHIS continued carrying out the national bovine brucellosis slaughter surveillance plan to increase the efficiency of this surveillance stream.

APHIS controls CFTs 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. The cooperative efforts by APHIS and the Texas Animal Health Commission (TAHC) since FY 2010 have decreased the prevalence of ticks and have enabled Texas to release all acreage under quarantine for two of the three temporary preventive quarantine areas. This represented a release of 861,245 acres from quarantine with only 33,024 acres remaining under quarantine in the free area by the end of FY 2014. The TAHC establishes these zones in areas outside of the APHIS-monitored permanent tick quarantine zones. 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 102,813 individual animal inspections and 58,602 treatments throughout South Texas. In FY 2014, the quarantine buffer zone and the free area of Texas contained 27 newly quarantined premises, compared to 30 in FY 2013.

Although the permanent quarantine buffer zone has remained the same size for several years, free-ranging and tick-infested white-tailed deer populations in the temporary quarantine area, including the buffer zone, continue to challenge tick eradication efforts. In late FY 2014, six new fever tick-infested premises were recorded in the free area of Cameron County, and the program expects to create a new temporary quarantine zone. One infestation was directly linked to a hunter-killed nilgai antelope. Quarantines, inspections, and treatments for livestock on these premises are on-going, as well as surveillance for potentially tick-infested white-tailed deer and nilgai.

Scientific and Regulatory Development

In FY 2014, APHIS continued work on the proposed comprehensive brucellosis and bovine TB rule. This rule is designed to modernize program regulations and is intended to 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; and, stakeholder feedback from FY 2011 and FY 2012.

From FY 2009 to FY 2014, APHIS has reduced the number of slaughter surveillance samples collected for brucellosis from 7.3 million to 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. APHIS continues to work with stakeholders to improve surveillance efficiency.

In FY 2014, APHIS continued to work with a small South Texas livestock feed company to register a product with the FDA to control the spread of CFT. APHIS began field studies in FY 2012 to collect data for the registration process. Currently, APHIS is working with the TAHC, the Agricultural Research Service (ARS), and a major veterinary pharmaceutical company to evaluate a new anti-tick vaccine for use on all cattle located within the permanent quarantine buffer zone in South Texas. ARS completed laboratory trials with the experimental vaccine in FY 2013, and a joint APHIS/ARS field safety evaluation trial began on November 25, 2014.

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. APHIS' 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.

Monitoring and Comprehensive Surveillance

APHIS conducts monitoring and comprehensive surveillance activities with States to protect the health of the equine, cervid, and small ruminant industries. Furthermore, APHIS works with States to ensure that cases of disease of trade concern found in equine, cervids, and small ruminants are reported to the World Organisation for Animal Health. In 2014, the ECSRH Program conducted disease surveillance and/or monitoring for the following diseases: contagious equine metritis (CEM), chronic wasting disease (CWD), Eastern equine encephalitis and Western equine encephalitis, equine herpes virus, equine piroplasmosis (EP), equine infectious anemia, scrapie, bovine tuberculosis (TB), vesicular stomatitis virus (VSV), and West Nile virus.

APHIS' Scrapie Eradication Program focuses on seven primary areas: education and prevention, sheep and goat identification and compliance, surveillance, tracing and testing positive and exposed animals, cleanup of infected and source flocks through genetic testing and indemnification of susceptible exposed animals, monitoring of previously infected and exposed flocks, and the Scrapie Free Flock Certification Program. 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. In FY 2014, APHIS tested 48,102 samples from sheep and goats for scrapie, compared to 44,955 samples tested in FY 2013. This 7 percent increase is largely due to increased surveillance of scrapie in goats. Since 2003, the percentage of positive scrapie sheep found at slaughter (adjusted for face color) has decreased by 87 percent. At the end of FY 2014, the percent of cull sheep found positive at slaughter and adjusted for face color was 0.019 percent compared to 0.0143 percent in FY 2013. During this final phase in the eradication effort, the numbers will likely fluctuate from year to year due to the small number of positive animals remaining. The prevalence of scrapie in U.S. goats is likely to be less than 0.02 percent with an upper 95 percent confidence limit of 0.026 percent. No positive goats were found through slaughter surveillance in FY 2014.

To aid in the eradication of bovine TB, APHIS provides a voluntary bovine TB herd accreditation program for captive cervids and requires TB testing of cervids to be eligible for interstate movement. In FY 2013, APHIS began

using a new primary serology test (the Cervid TB Stat-Pak) that is performed on a blood serum sample, and a secondary test (Dual Path Platform VetTB) performed on the primary test positives. The TB skin tests, Single Cervical Test and the Comparative Cervical Test remain approved tests and may still be used. The new serologic tests are more sensitive and specific, reduce animal handling, and produce more timely results. However, the manufacturer discontinued the Stat-Pak test in early 2014. APHIS evaluated and revised the serology testing protocol to use the Dual Path Platform as the primary and secondary tests, which have retained appropriate sensitivity and specificity. In FY 2014, the program tested 16,300 animals using this method. The program identified eight animals as TB reactors, of which 6 have been cultured negative for *Mycobacterium bovis*, and 2 cultures are pending. To date, no animals have been culture positive for *M.bovis*.

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 of cervids only from certified herds considered to be low risk to 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 to ensure that they comply with national requirements, plans to conduct periodic reviews to ensure compliance, and supports confirmatory testing of presumptive cases.

In FY 2014, the program tested approximately 20,000 farmed cervids for CWD. Two new CWD positive farmed white-tailed deer herds were identified – one in Pennsylvania and one in Wisconsin. The program depopulated the PA herd and two additional CWD positive herds in quarantine since FY 2012 in Iowa (white-tailed deer herd) and Minnesota (red deer herd). Six elk herds in Colorado, four elk herds in Nebraska, and one white-tailed deer in Wisconsin remained in quarantine at the end of FY 2014. There also are numerous CWD exposed herds that are epidemiologically linked to CWD positive herds that remain in State quarantine pending completion of the epidemiology investigations.

In 2014, APHIS' National Animal Health Monitoring System, in cooperation with the National Agricultural Statistics Service, began conducting the first national study of the U.S. farmed-cervid industry. This study's objectives are to: provide a baseline description of the U.S. farmed-cervid industry, including inventory, species, and operation size and type; describe U.S. farmed-cervid production practices and challenges, including animal identification, fencing, animal care and handling, trade and movement, and disease testing; describe the producer-reported occurrence of epizootic hemorrhagic disease and the management and biosecurity practices important for controlling this disease on cervid farms; and describe health management and biosecurity practices important for the control of infectious diseases on cervid farms.

APHIS safeguards the equine industry by helping State animal health officials monitor equine diseases that threaten animal and human health. In FY 2014, APHIS continued active and passive surveillance activities in all States for Vesicular stomatitis virus (VSV), with deployment of foreign animal disease diagnosticians for investigation of suspect cases. As of October 1, 2014, APHIS reported 519 VSV-positive equines for all premises in Colorado and Texas.

Investigation and Response

APHIS conducts investigations, responds to disease outbreaks, and enforces regulations to protect livestock. In FY 2014, APHIS assisted in the epidemiological investigation and cleanup of 6 flocks in which the program traced scrapie-positive animals. The Agency worked with affected flock owners to identify, indemnify, and remove at-risk animals to minimize the risk of disease recurrence and spread. Upon completion of the cleanup plan, flocks are placed on post-exposure management and monitoring plans for five years.

Although no new TB cases in captive cervids were detected in FY 2014, two captive cervid herds in Michigan remain under an indefinite quarantine since testing positive in 2009. The herds are located in an area of northeast Michigan where free-ranging white-tailed deer are a reservoir for bovine TB. APHIS is working with the State of Michigan to mitigate the risk of transmission from this wildlife reservoir to livestock.

APHIS provided indemnity for and was the lead agency for the depopulation and disposal of two large CWD infected farmed cervid herds in Iowa and Minnesota. APHIS also provided indemnity for and assisted with the

appraisal and depopulation of a CWD infected farmed cervid herd in Pennsylvania. APHIS also provided assistance to States with outbreak investigation, assessment of risk posed by infected or exposed animals, development of herd plans and continues to develop strategies for the purpose of controlling and managing CWD in farmed cervids.

Disease Prevention and Preparedness

APHIS' HCPs for CWD and scrapie, and herd accreditation for bovine TB provide criteria and Federal standards for participating livestock owners to meet. APHIS reviews State applications, approves State CWD HCPs that meet the requirements of the national CWD HCP rule, conducts periodic reviews to ensure compliance, and supports confirmatory testing of presumptive cases. Currently, 29 States participate in the national CWD HCP – 26 have Approved Status and 3 have 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.

The voluntary TB herd accreditation program recognizes three levels of herd qualifications for captive cervid herds. These three levels are Accredited, Qualified, and Monitored, and are based on herd testing of all animals over 1 year of age over a 9 to 15 month period with retesting required every 33 to 39 months to maintain their accreditation.

At the end of FY 2014, 455 flocks were enrolled in the Scrapie Free Flock Certification Program (SFCP). Of these, 18 were export certified (i.e., the flock demonstrated it is free of scrapie), 177 were export monitored (i.e., working to demonstrate freedom from scrapie), and 260 were select monitored (i.e., observing animals for signs of scrapie and testing a specified number for scrapie to demonstrate reduced risk). Participation in the SFCP provides producers the opportunity to protect their animals from scrapie and enhance the marketability of their animals. The decrease in number of participating flocks between FY 2013 and FY 2014 was due to the restructuring of the SFCP in FY 2013, which aimed to increase program efficiency and flock level surveillance.

In FY 2014, there were outbreaks or ongoing occurrences of EP, CEM, equine herpes myeloencephalopathy, Equine Infectious Anemia, and VSV. APHIS supported State and industry responses to these outbreaks with coordination, diseases-specific technical guidance, epidemiological expertise, database maintenance, diagnostic assistance, and situation reports. In addition, the Agency disseminated a variety of information on equine diseases including West Nile Virus and Eastern Equine Encephalitis.

In FY 2014, a new, privately operated, equine import quarantine station in Puerto Rico was approved. APHIS conducted equine import testing and reported test results within one day to meet the 42-hour equine quarantine target. In FY 2014, APHIS conducted approximately 10,000 tests for glanders and 11,000 tests for dourine for the purpose of equine importation. Glanders and dourine are both highly contagious diseases. Also in FY 2014, APHIS provided laboratory certification and annual proficiency testing for more than 400 Equine Infectious Anemia laboratories and approval for 19 equine viral arteritis laboratories, 12 EP laboratories, and 18 CEM laboratories.

Under the Commercial Transportation of Equines for Slaughter Act, APHIS' authority and role is to ensure the humane transport of U.S. origin equines to slaughter. A final rule, published in 2011, extended the regulatory protections to horses delivered to intermediate points. In 2014, the program again trained approximately 150 Federal, State and industry personnel on enforcing the regulation.

Regulatory Development

In FY 2014, APHIS published the CWD final rule and revised CWD Program Standards following respective public comment periods. APHIS also amended and published for public comment the interim final rule for Cervid TB Serology Testing to reflect the changes in the serology testing method. APHIS received no public comments on this interim final rule. The Agency also revised similar Cervid TB serology guidance (VSG 6701.2). To further ensure the health of animals moving interstate, APHIS drafted a proposed TB/brucellosis rule that includes interstate testing requirements for captive cervids, and provides a comprehensive, flexible, and risk-based approach for managing TB and brucellosis.

6. National Veterinary Stockpile

The National Veterinary Stockpile (NVS) is a vital component of USDA's emergency preparedness and response efforts because it 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 outbreaks. NVS' goals are to deploy the materials and other 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. In preparation for response to an incident, the NVS State-Federal Liaison conducts outreach with these partners to develop their logistical plans, conduct logistical training, and conduct full scale logistical test exercises. Currently, this program is prepared to respond to 15 high-consequence animal 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.

Some highlights from FY 2014 include replenishing the inventory of Classical Swine Fever vaccine (CSFV), initiating procurement action to acquire Rift Valley Fever vaccine, and Differentiating Infected from Vaccinated Animals compatible CSFV. The program also worked with manufacturers to acquire Modified Atmospheric Killing trailers and Mobile Swine Electrocution units to enhance APHIS' ability to conduct depopulation operations.

In FY 2014, the NVS also replaced expired inventory for critical equipment, such as the 24-Hour Push Packs (personal protective equipment (PPE) and decontamination supplies that precede other items needed to support an on-going emergency response effort) and acquired additional bulk personal protective equipment. In addition, APHIS continued to rebuild 540,000 PPE kits outside of those reconfigured in the 24-Hour Push Packs. These efforts enable the NVS program to effectively manage adequate stockpiles of material resources to support first responders within 24 hours of detection and to assist States, tribes, and territories in requesting, receiving, processing, and distributing these countermeasures during an incident.

Also, in FY 2014, the NVS program sought opportunities to lead, support or coordinate more than 15 activities focused on NVS promotion and preparedness in Florida, Texas, Wisconsin, and Puerto Rico/U.S. Virgin Islands. As a result, many additional Federal, State, Tribe, and Territory officials are better prepared to respond logistically to an outbreak of a damaging animal disease. These activities enabled the program and participating stakeholders and partners to refine their preparedness procedures.

APHIS continued coordinating training and exercises in FY 2014 to prepare APHIS personnel and stakeholders to logistically respond to damaging animal disease outbreaks. The program also identified and developed a resource pool of animal health workers, professionals, and technicians that can provide surge capacity for large incidents.

Lastly, the NVS conducted training activities in Delaware and North Carolina, which focused on providing participants hands-on training in the preparation, deployment, and operation of foam depopulation technology used during an animal disease outbreak. This training enabled the NVS program and participating stakeholders and partners to refine their skills, knowledge, and procedures before using them in an actual event.

7. Swine Health

The Swine Health Program protects the health and improves the quality, productivity, and economic viability of the swine industry. The 2013 production value of the swine industry was approximately 21.4 billion (National Agricultural Statistics Service). In addition, the program facilitates trade in swine and pork products, and identifies and addresses health issues that arise in swine, at the human-swine interface, and between wildlife and domestic swine. APHIS activities include comprehensive and integrated surveillance and reporting for program diseases, emergency preparedness and response planning, disease investigation and control activities in the field, zoonotic disease prevention and response, swine health studies and special projects, and 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 directly supports interstate and international commerce by providing assurances regarding the health of animals and products being moved or traded.

Comprehensive and Integrated Surveillance for Swine Diseases

APHIS conducts surveillance activities to detect foreign, emerging, zoonotic, and domestic swine diseases that could potentially and substantially impact domestic producers and the national economy. The Agency collects swine samples from various locations (surveillance streams) for multiple diseases. In FY 2014, APHIS collected samples for the following diseases: pseudorabies virus (PRV), swine brucellosis, classical swine fever (CSF), and influenzas that affect swine (IAV-S). This comprehensive and integrated approach allowed APHIS to maintain surveillance, and target higher-risk samples while reducing surveillance costs.

In FY 2014, APHIS collected samples from the following surveillance streams: veterinary diagnostic laboratories, slaughter plants, producer premises, livestock markets, feral swine samples collected from elimination projects, and samples submitted by practitioners to diagnostic labs. For FY 2014 (quarters 1-3), the program tested 213,511 swine for PRV through various surveillance streams. During that time, APHIS tested 178,887 swine for PRV through slaughter surveillance and 25,360 swine through samples submitted to diagnostic laboratories. APHIS also tested 180,894 samples for swine brucellosis. In FY 2014 (quarters 1-4), APHIS tested 12,716 samples for CSF. Also in FY 2014 (quarters 1-3), APHIS tested 22,504 samples for IAV-S. This testing period did not identify CSF in the United States and this testing period continued to confirm that all commercial swine herds were free from swine brucellosis and PRV. Full FY 2014 statistics for PRV, swine brucellosis, and IAV-S will be available in late January 2015.

Domestic swine remain at risk from diseases such as PRV and swine brucellosis in part due to the increasing number of feral swine in the United States (population estimated to be approximately six million), which may come in contact with domestic herds. In FY 2014, APHIS sampled a subset of feral swine to monitor them and test them for diseases of concern. This included 2,804 samples for PRV; 2,787 samples for swine brucellosis; 2,805 samples for CSF; 2,158 for IAV-S; and 2,373 for porcine reproductive and respiratory Syndrome (PRRS), a syndrome caused by a virus endemic in the swine industry.

APHIS continued implementing comprehensive surveillance by developing an African Swine Fever (ASF) and Foot and Mouth Disease (FMD) pilot project. This pilot, implemented at the end of FY 2014, is designed to provide surveillance for ASF and FMD in swine. Since this pilot was implemented at the end of FY 2014, sample testing reports are not yet available.

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 is a major risk factor for transmitting infectious diseases such as foot-and-mouth disease or CSF to swine. In FY 2014, APHIS supported 5,490 inspections of licensed premises and 28,774 searches for non-licensed facilities. Through these searches, the Agency identified 122 non-licensed feeders. Through collaborative efforts with the States, facilities were either brought into compliance or ceased non-licensed garbage feeding.

Emergency Preparedness and Responses to Disease Outbreaks

In FY 2014, APHIS addressed the Swine Enteric Coronavirus Disease (SECD) concerns, particularly with porcine epidemic diarrhea. The Agency used appropriated funds to support diagnostic testing; field epidemiological investigations; collaborative rapid response investigative teams; disease entry pathway analysis; development of truck washing biosecurity guidelines; and to advance scientific knowledge of SECD. These actions were designed to help stakeholders identifying entry pathways for SECD and to better understand the scope of SECD in U.S. swine herds. In FY 2014, this program worked with State Animal Health Officials, accredited veterinarians, and producers to implement the SECD Federal Order. Since the Order was implemented in June 2014 until the end of FY 2014, APHIS received and tracked 1,243 positive accessions in the USDA database system. Federal and State officials verified 1,153 of those accessions for the identification of 371 positive premises, and are working with veterinarians and producers to assess the status of the remaining 90 accessions.

In FY 2014, no commercial herds were identified as having PRV or swine brucellosis. However, on occasion some non-commercial herds were identified as allowing or potentially allowing exposure to feral swine. In situations where testing and removing infected animals is not deemed an effective disease management approach, APHIS supports whole herd depopulation. In all cases, APHIS and State partners quarantine infected herds, conduct routine testing to determine prevalence in the herd, and perform whole herd depopulation or removal of infected animals to eliminate the disease from these herds. These response efforts are essential to safeguarding commercial herds that may come in contact with infected small backyard herds.

In FY 2014, public health officials reported three human variant influenza cases linked to swine exposure, with all cases having swine exposure prior to illness onset. All outbreaks were jointly investigated by State public and animal health officials, with support from APHIS and the Centers for Disease Control. APHIS helps States and industry identify the isolates from the swine associated with these outbreaks. This information is used to improve animal health diagnostics and animal vaccines, and may be used by human health experts in forecasting human influenza activities. Subtyping and sequencing data were entered into the USDA Influenza A in Swine Surveillance Database. Genetic sequences from these samples and from other swine isolates are entered into GenBank (a publicly accessible genomic database). This database provides access within the scientific community to the most updated, comprehensive deoxyribonucleic acid sequence information.

Regulatory Developments

APHIS has been highly successful in eliminating PRV from the U.S. commercial swine herds. At the end of FY 2014, all States had maintained PRV-free status for 10 years. Because of this success, APHIS is considering options to modernize the existing regulatory framework to reflect a comprehensive, risk-based, and science-based program to enhance surveillance while reducing the burden on States and producers. APHIS continues to work with States, Tribes, and industry to further develop concepts necessary for a more comprehensive approach to swine surveillance, monitoring, and emerging disease response.

Zoonotic disease prevention and response

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. In FY 2014, APHIS continued activities to support the voluntary Trichinae herd certification program where 38 premises are actively enrolled in the program.

Swine health studies and special projects

APHIS' Swine Health Program supported special projects to advance scientific knowledge, situational awareness, rapid disease detection, and effective diagnostic tests which are critical to APHIS' ability to respond to swine and human health events. In FY 2014, APHIS supported multiple agreements examining the advancement of SECD disease control measures, reduction in virus shedding, investigative reporting, and training and biosecurity efforts to prevent shedding. In addition, APHIS supported projects with various Universities to identify samples of FAD-infected animals. The program issued three grants in FY 2014 for the collection of qualifying samples that will advance the development of FAD diagnostics.

Outreach and communication with stakeholders

APHIS is enhancing communications and outreach with stakeholders by actively engaging them through various communications mediums. APHIS prepares multiple reports outlining surveillance activities that are shared with industry stakeholders to provide information on animal disease activities. These reports support trade negotiations and assist States' animal health officials in science-based decision making. APHIS also prepares educational and scientific documents to support the industry. The National Animal Health Monitoring System (NAHMS) collects, analyzes, and disseminates data on animal health, management, and productivity across the United States. NAHMS also conducts studies to meet the information needs of the industries associated with domestic livestock populations. In FY 2014, APHIS validated data collected from the 2012 NAHMS Swine study, and created and used statistical

weights to generate national estimates. In addition, NAHMS collaborated on various projects such as assessing the economic impact of swine dysentery, conducting a spatial analysis to detect clustering of feral swine exposure, and evaluating breeding performance in different housing systems.

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. These products, which include vaccines, bacterins, antisera, diagnostic test kits, and analogous products, are developed 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 veterinary biologics were regulated, farmers and animal health officials found products to be ineffective or contaminated with harmful diseases, including foreign animal diseases (FADs). In FY 2014, APHIS received 170 applications for new and renewal licenses and issued 71 licenses/permits for the prevention, diagnosis, management, or cure of existing or new/emerging animal diseases. By the end of FY 2014, the Agency licensed 100 manufacturers for approximately 1,726 active veterinary biological product licenses/permits for the control of 218 animal diseases. This represents an increase from FY 2013 of two diseases 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 inspects manufacturing facilities to ensure that biologics are produced according to regulations. In FY 2014, APHIS conducted 65 on-site inspections, 17 percent (11) of which supported a new establishment or product license for the industry. Licensing veterinary biologics is vital as they provide products to diagnose, prevent, or treat animal diseases, or improve existing biologics. In FY 2014, CVB issued a conditional license for a vaccine that may help control porcine epidemic diarrhea virus, which has cost producers and consumers hundreds of millions of dollars. APHIS also performed 66 regulatory actions, issued 41 violation notices, and conducted 24 investigations of possible regulation violations. In addition, the Agency received 241 adverse event reports regarding veterinary biological products. These events, which may or may not be caused by the product, are undesirable effects that 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 2014, APHIS reviewed/processed 2,863 Certificates of Licensing and Inspection, and reviewed/processed 986 export certificates for veterinary biological products. The Agency processed 99.5 percent of all export certificates within 4 days or less, and processed 94 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 nearly 125 million biologics doses.

In FY 2014, APHIS received the USDA Secretary's Honor Awards for implementing business process improvement projects to increase the efficiency of processing electronic licensing submissions for biologics. These projects focused on the development of electronic systems and workflows for the submissions. These changes are projected to save the veterinary biologics manufacturing industry an estimated $23 million annually. In addition to maximizing APHIS resources, this business process change for serial release notification also allows products to reach the market faster. In FY 2015, the Agency will take other proactive steps to improve processes, including

developing a portal to improve information exchange with stakeholders. APHIS also continued improvements to its pharmacovigilance information system, allowing better analysis and evaluation of licensed products.

Collaborative Efforts

In FY 2014, APHIS provided expertise and training at a joint Center for International Cooperation in Animal Biologics education program. More than 165 delegates from 17 countries (including the U.S.) participated in this course aimed at educating 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.

APHIS responded to 30 requests for assistance with export issues, which addressed urgent concerns from the biologics industry regarding continued access to international markets, including Mexico, Turkey, Taiwan, Thailand, Saudi Arabia, Peru, Chile, and Australia.

Vaccination of companion animals with inactivated veterinary rabies vaccines is a first line defense in protecting the American population from exposure to the rabies virus. Currently, each lot of rabies vaccine is tested for potency using the standard animal testing protocol. In FY 2014, APHIS began working with industry to produce a set of well-characterized reagents for use in an *in vitro* 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 an essential component of the U.S. animal health infrastructure. The Veterinary Diagnostics line item provides partial funding for the National Veterinary Services Laboratories (NVSL), which is the only national reference and confirmatory laboratory for APHIS animal health programs. This line item also funds personnel associated with 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 NAHLN is a fully 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 41 States, as well as 4 Federal laboratories. The network laboratories perform approximately 300,000 diagnostic tests in support of APHIS' animal health surveillance programs. The NVSL provides training to NAHLN laboratories 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 allows the laboratories to remain proficient in animal disease testing. In addition, it enables these laboratories 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 2014, APHIS handled more than 362,000 diagnostic tests and 42,500 accessions (one or more diagnostic samples received from the same submitter on the same day), and produced and provided more than 1,900 reagents. 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.

The Veterinary Diagnostics Program also provides funding for foreign animal disease (FAD) investigations through NVSL's Foreign Animal Disease Diagnostic Laboratory and Diagnostic Virology Laboratory. In FY 2014, NVSL participated in 1,262 FAD investigations, received 7,512 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

and piroplasmosis. Because both of these diseases have symptoms that mimic foot-and-mouth disease, APHIS received many samples from these outbreaks as FAD investigations, especially as new regions or locations were identified. NVSL received 7,661 CSF samples in FY 2013, and the number received in FY 2014 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 standardized, rapid diagnostic techniques are used, and to maintain the credibility of U.S. diagnostic test results in the international marketplace. In FY 2014, APHIS provided 32 types of proficiency panels to international, Federal, State, and private laboratories. To help other laboratories develop and validate diagnostic tests, APHIS made available the necessary controls and reference strains for approximately 200 diseases, including FADs. Cost recovery for some reagents and proficiency panels is supported through user fees. In FY 2014, the NAHLN conducted studies to validate tests used for identifying high-consequence emerging animal and/or zoonotic diseases. These 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. An assay is an investigative procedure for qualitatively assessing or quantitatively measuring the presence or amount of the functional activity of a target entity.

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 pathogens are zoonotic. Most newly emerging pathogens are of animal origin and most of these originate from the wildlife sector. These statistics support the value of a One Health approach. APHIS provides national leadership and expertise 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 to help animal health stakeholders effectively engage with public health counterparts, provide guidance, facilitate information exchange, and enhance responses to One Health issues. By enhancing APHIS' efforts to address the animal health component of One Health, the ZDM Program protects public health and directly benefits animal health and marketability.

Zoonotic Disease Engagement, Investigation, and Response

APHIS has developed and piloted a standardized approach to fostering greater cross-agency collaborations to improve One Health. The One Health Systems Mapping and Analysis Resource Toolkit (OH-SMART), launched in May 2014, is a demonstrated and valuable mechanism to build the bridges between human health and animal health. This toolkit will be presented at additional national and international trainings in years to come.

APHIS works with numerous international, national, State, and industry partners to address zoonotic diseases, such as *Salmonella*. *Salmonella* bacteria cause an estimated 1.2 million human illnesses, 19,000 hospitalizations, and 370 deaths annually in the United States. USDA's Economic Research Service estimates that *Salmonella* costs the U.S. economy approximately $2.5 billion annually. An estimated 11 percent of human *Salmonella* infections are attributed to animal exposure annually.

In 2014, APHIS continued to partner with the Centers for Disease Control and Prevention (CDC) and industry to prevent human *Salmonella* infections associated with contact with live poultry from mail order hatcheries. One of APHIS' primary contributions to this effort, to which CDC provided input, is the *Best Management Practices Handbook: A Guide to the Mitigation of Salmonella Contamination at Poultry Hatcheries*. This handbook was developed to help hatchery operators mitigate *Salmonella* contamination of birds to be sold through the mail, feed stores, or other retail outlets. Reducing *Salmonella* contamination at the hatchery, along with proper handling of live poultry by those purchasing birds, will help reduce the number of people becoming ill. APHIS and CDC also worked together in 2014 to investigate a multi-State outbreak of *Salmonella* infections in people linked to contact with bearded dragons. Between February 2012 and August 2014, 166 people became infected with the outbreak strains of *Salmonella* Cotham (160 persons) or *Salmonella* Kisarawe (6 persons) in 36 States. Fifty-nine percent of ill persons were 5 years old or younger and 37 percent of ill persons were hospitalized, but there were no deaths. APHIS provided *Salmonella* isolation, identification, serotyping, antimicrobial resistance testing, and genotyping.

By the end of the outbreak, APHIS had received 454 samples for *Salmonella* testing from four bearded dragon breeder premises from the United States, Southeast Asia, and South America. In addition, the CDC recommended that a national pet store chain work directly with APHIS for their investigation.

Preharvest Food Safety (PHFS)

In a 2011 study, the CDC estimated that foodborne diseases cause 48 million illnesses, 128,000 hospitalizations, and 3,000 deaths per year in the United States. PHFS includes on-farm interventions that can reduce the risk of foodborne diseases. APHIS works with stakeholders in a non-regulatory manner to identify risk factors and effective on-farm practices to 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 2014, APHIS finalized a directive to formalize our response to findings regarding bovine cysticercosis, which were obtained primarily through slaughter inspections. Bovine cysticercosis, which affects the muscles of cattle, is caused by the larvae of a human tapeworm. If people consume beef containing the parasite, they can acquire intestinal tapeworm infections.

Antimicrobial Resistance

Antimicrobial resistance (AMR) requires a One Health approach involving multidisciplinary coordination from both the public health and animal health sectors. APHIS is working 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. In FY 2014, APHIS worked with other USDA agencies, CDC, and FDA to develop a "National Strategy for Combatting Antibiotic-Resistant Bacteria." This document was part of a White House Initiative on AMR. The strategy covers a broad array of potential government efforts to address AMR in human and animal health. Items in the strategy relevant to APHIS include plans for surveillance of AMR at the farm level, collection of antimicrobial drug use data, and work to promote stewardship of antimicrobial drugs by animal owners and veterinarians. Also in FY 2014, APHIS continued to consult with the FDA to develop policies regarding the use of antimicrobial drugs in food-producing animals. In addition, the Agency worked with FDA to assess the impacts of policy actions related to antimicrobial drug use in livestock and poultry. APHIS also provided updates on activities to the Interagency Task Force on AMR as they chart progress in completing activities included in the Public Health Action Plan to Combat AMR. In addition, APHIS participated in efforts to revise the reporting mechanisms for the National Antimicrobial Resistance Monitoring System to facilitate the timely reporting of AMR data to a broad community of stakeholders. In FY 2014, APHIS performed AMR testing in organisms of public health importance from dairy and swine operations nationwide. Results from this testing will be available in FY 2015. APHIS began a collaborative project with the Ohio State University to evaluate a subset of *Salmonella* isolates from an earlier feedlot study to explore the molecular basis of the resistance phenotype observed. Also in FY 2014, APHIS continued to participate on a multi-agency USDA team to finalize the USDA AMR Action Plan, which will be available in FY 2015. In addition, APHIS 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. Furthermore, the Agency worked with FDA to provide input to the OIE ad hoc group developing a global database on antimicrobial drug use. APHIS also provided consultation on a draft Global Action Plan to Address AMR. This plan is being developed through the World Health Organization. In addition, APHIS participated 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. By using this approach, rather than focusing on a specific disease, APHIS can be prepared for a variety of diseases, including emerging diseases. In 2014, APHIS helped CDC address the animal component of the Ebola outbreak. That collaboration continues with CDC and the American Veterinary Medical

Association (AVMA) into FY 2015. APHIS is participating on cross-sector Ebola working groups established by AVMA to address: 1) companion animals, 2) livestock, 3) zoo animals, and 4) personal protective equipment for animal caretakers.

APHIS also 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. Key areas identified for collaboration and action include establishing cross sector working groups to develop guidelines and processes for epidemiologic and laboratory data sharing; emergency and risk communications; and joint exercises and training.

In FY 2014, APHIS conducted several avian health activities pertaining to the "One Health" approach of enhancing State, national, and international collaborative efforts to promote healthy animals, people, and ecosystems. These activities included meeting with the California Poultry Association to discuss APHIS' role in One Health and Pre-harvest Food Safety, incorporating CDC comments into a USDA National Poultry Improvement Plan Best Management Practices handbook regarding *Salmonella* contamination at poultry hatcheries, and co-authoring several CDC publications on *Salmonella* outbreaks.

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 (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. In February 2014, APHIS coordinated USDA involvement in the launch of the Administration's Global Health Security Agenda, an international effort across governments, non-governmental organizations, and the public, to accelerate global capacity to address infectious disease threats, whether naturally occurring, intentionally produced or accidentally released. During this launch, the United States committed to assist at least 30 countries over the next five years to achieve the objectives of the GHSA.

Also in FY 2014, APHIS coordinated USDA involvement and participated in subsequent meetings in Helsinki, Finland and Jakarta, Indonesia, as well as the Washington, D.C. Ministerial White House Event to further the commitment and planning for international implementation of the GHS agenda. APHIS continues to coordinate USDA efforts related to the eleven GHS Action Packages (specifically Antimicrobial Resistance, Emergency Operations, and Emerging Zoonoses packages) that comprise the GHS agenda through a GHS sub-group of the USDA Joint One Health Working Group.

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 regulatory import policies to protect agricultural health. In addition, the Agency conducts off-shore risk reduction activities including pre-departure inspections of passenger baggage 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 quarantines imported plant propagative materials; conducts trade compliance activities to 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 maintaining the highest level of agricultural security. 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 baggage of passengers 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. Preclearance of commodities by inspection or treatment is overseen by APHIS inspectors. Trust fund agreements with the exporting country and exporter or exporter groups funds 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 bear the costs of this APHIS service.

Cooperative Program Management

APHIS works with CBP to protect America's agricultural resources and food supply by inspecting international passenger baggage, cargo, and conveyances. During FY 2014, APHIS and CBP's Joint Task Force completed a strategic plan for AQI activities. Based on recommendations from a General Accountability Office audit, the draft strategic plan focuses on key priorities such as enhancing detection, identification, and interdiction capabilities at ports of entry; enhancing targeting and analysis of incoming shipments for agricultural purposes; and enhancing communication between the two Agencies. To ensure the effectiveness of inspection policies, APHIS and CBP continue to conduct a quality assurance program, which includes port reviews. In FY 2014, APHIS and CBP conducted quality assurance reviews at 15 land border ports and 1 airport in the United States and 2 pre-clearance ports in Ireland. In FY 2014, APHIS trained 77 new CBP agriculture specialists. APHIS also conducted basic agricultural threat training for 1,248 first-line CBP officers and provided agriculture fundamentals training for 72 CBP import specialists.

Pre-Departure Inspections

APHIS inspected the baggage of approximately 11.3 million passengers before they left Hawaii and Puerto Rico and intercepted 248,786 prohibited items and nearly 4,000 reportable pests (quarantine-significant pests that must be reported to Federal or State authorities) in FY 2014. 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 2014, 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 2014, the program conducted more than 85,000 inspections of regulated agricultural commodities shipped from Hawaii and 11,500 inspections of regulated agricultural commodities shipped from Puerto Rico. In addition, the program oversaw or conducted 4,162 cargo treatments in Hawaii and 3,265 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 2014, more than 166.7 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 22.6 million of these travelers, through manual inspection, x-ray technology, or detector dogs. Also in FY 2014, the program inspected 608,329 of the 94 million passenger vehicles entering the United States from Canada and Mexico. Inspectors also cleared approximately 33,572 ships and 1.19 million cargo, mail, and express carrier shipments, intercepting 103,030 pests. Of the travelers inspected, approximately 96.8 percent of international air passengers, 97.3 percent of southern border

vehicles, and 93.6 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 environment and agricultural production areas. In FY 2014, PGQP released from quarantine 25 bamboo clones, 154 grass clones, 32 pome fruits, 56 potato clones, 18 potato true seed lots, 200 rice seed accessions, 1 currant, 1 gooseberry, 20 stone fruit clones, 204 stone fruit seedlings, 48 sugarcanes, 10 sweet potatoes, and 8 woody ornamentals. New crops imported in FY 2014 included sorghum seed, a dogwood, and blueberries. 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. In FY 2014, scientists in PGQP discovered new pathogens during testing of bamboo, Miscanthus, and sweet potato. When new pathogens are discovered, APHIS collaborates with scientists from USDA's Agricultural Research Service or universities to characterize the pathogen and publish information about it. These collaborations may result in improvements in the PGQP's testing protocols and 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. This number includes one new country, France, where exporters initiated a pre-clearance program for apples and pears.

APHIS works with the U.S. Department of Defense (DOD) and the 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 2014, 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 2014, APHIS trained more 3,000 personnel in the United States alone. In FY 2014, APHIS, in partnership with DOD, successfully recertified all 101 military preclearance programs in the 15 countries comprising DOD's European Command.

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 2014, APHIS seized 1,737 prohibited agricultural items in retail commercial locations. Those seizures totaled nearly 130,172 pounds of prohibited and/or restricted plants and plant products and meat and meat products valued at $331,150. The Agency conducted eleven recalls due to finds of high-risk material, such as willow branches imported as decorative items that pose a risk for exotic forest pests and melon seeds that could carry Khapra beetle (a serious stored food product pest). Total seizures as a result of recalls weighed 3,596 pounds and were worth an estimated value of $42,605.

In conjunction with CBP, APHIS conducted 25 port-of-entry Special Operations and found additional prohibited plants and plant products as well as various high-risk animal products. A significant interception as a result of these operations was ostrich feathers from China. SITC verified that the feathers were contaminated and posed a risk of carrying exotic avian disease organisms. SITC is working with CBP to make sure that items exported from China by the same exporter are thoroughly inspected in order to prevent future importations of similar products

Asian Gypsy Moth (AGM)

APHIS supports the exclusion of AGM through negotiations and support of offshore AGM ship inspection and certification from Far East Russia, Japan, Korea, and China. Due to an increase in AGM egg masses intercepted by

CBP 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 a joint U.S./Canada technical visit to Japan and Korea in early 2014 to gain more cooperation from the Government as well as the certifying agencies in each country.

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 2014, inspectors cleared more than 23,000 imported shipments containing 1.45 billion plant units (cuttings, whole plants, or other propagative materials) and approximately 2,372,167 kilograms of seeds. Through these inspections, inspectors intercepted 1,321 reportable pests. In addition, the stations conducted more than 600 treatments remediating pests on more than 4.7 million plant units and almost 280,000 kilograms of seed.

During FY 2014, APHIS implemented risk-based sampling, a method to improve inspection of imported plant material. The new protocol will 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. APHIS will review data collected through the new process after one year to classify plant/country combinations into different risk levels, high, medium or low. This will allow inspectors to better focus resources on the higher risk plants.

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 2014, APHIS National Identification Services processed and identified 163,821 pests (with 78,402 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 1,201 CBP Agriculture Inspectors. Of these, approximately 705 Agriculture Inspectors have earned CRA (CRA is earned after the Agriculture Inspector has successfully identified a particular pest a certain number of times and submitted documentation to APHIS) on a total of 7,395 CRA pests.

Risk Analysis

APHIS' Plant Epidemiology and Risk Analysis Laboratory (PERAL) develops pest risk analyses and epidemiological approaches to pest exclusion. In 2014, PERAL personnel completed 260 risk analyses associated with imports, exports, invasive pest threats, and programmatic requirements. This work included 40 analyses to open, expand, or maintain export markets for U.S. producers. It also included evaluations of 46 new pests for potential risk to U.S. agriculture and 22 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 and represent approximately $31 billion in trade annually. This 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. . Currently, 31 States and 26 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. APHIS will conduct pilot exchanges with additional countries in FY 2014 (for both products coming into the United States as well as exports to other countries). In FY 2014, APHIS, State, and county officials issued more than 665,000 Federal export certificates for agricultural shipments a 10 percent increase over FY 2013.

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 to 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 2014 season, the industry produced approximately 16 million 480-pound bales worth approximately $6 billion (National Agricultural Statistical Service).

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 U.S. where active eradication continues. The LRGV is impacted by the neighboring Mexican cotton producing state of Tamaulipas and their security issues. Inclement tropical weather has also hampered progress in the region by artificially spreading BW outside the LRGV. APHIS partnered with an international technical committee to develop strategies to eradicate BW from the LRGV zone and neighboring Tamaulipas, Mexico. Tamaulipas producers adjusted their late-season treatment strategies in an effort 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. While there was increased cotton acreage planted in the LRGV in 2014, detections of boll weevil decreased by 55 percent to date. APHIS and its State, industry, and international partners continued these intensive activities to target this last remaining BW zone in FY 2014.

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 and 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 U.S. growing areas are now in the confirmation of eradication phase of the eradication program. 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 U.S. (and Mexicali and San Luis, Mexico) were detected in 2012. No native moths were reported in 2013 and the program completed its first year of eradication confirmation in 2014.

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 (KB) and witchweed from spreading and impacting export markets for U.S. farmers. The program also works to keep the imported fire ant (IFA) 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.

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 caused by grasshopper and Mormon cricket (GMC) outbreaks, 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. In FY 2014, APHIS conducted surveys in 17 States, collecting data at more than 29,000 survey points. Based on the results of the surveys and needs of land managers, the program treated approximately 7,201 acres of rangeland, which protected rangeland forage and wildlife habitat on approximately 17,448 acres. APHIS treated the largest Mormon cricket outbreaks in Washington State, with smaller outbreaks of Mormon crickets occurring in Idaho and Utah. APHIS treated the largest grasshopper outbreaks in Arizona and smaller outbreaks in Montana. In Washington, Idaho, and Utah, the program applied treatments on Federal and State lands. In Montana and Arizona, the program applied treatments primarily on Tribal lands. 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). For example, the program determined that unusually dense grasshopper hatches in areas of New Mexico in summer 2014 were not species that would likely cause harm to rangeland or pose yearly problems. The program helps land managers by providing population information, helping to predict where GMC populations could develop into outbreaks and providing technical assistance to land managers 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.

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 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 2014, APHIS confirmed data that supports modification of a treatment application technique for balled-and-burlapped nursery stock. This modification reduces applications from twice a day for three consecutive days to twice in one day with rotating or flipping the root ball between drench applications to insure complete coverage. This will not decrease the total amount of insecticide applied, but shortens the treatment regime from three days to one day, significantly reducing labor costs for growers. Also in FY 2014, the IFA program conducted a Strength, Weaknesses, Opportunities, and Threats (SWOT) analysis to identify areas on which to focus. The SWOT analysis helped to re-enforce areas where the program has been effective, but also pointed out areas for improvement. One specific area that will be the focus for improvement is updating the IFA quarantine map and including interactive features that display the quarantine boundaries to assist nursery owners in determining if they are located in the quarantine area. APHIS met the program's performance target of no IFA infestations outside of regulated areas that could be attributed to the movement of regulated articles infested with fire ants. 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 the ants. Since the spring of 2002, the program has conducted more than 155 releases involving four species of phorid flies, with several releases in each of the States/territory under Federal quarantine. The four fly species are established in the southeastern States, and two have spread throughout more than 65 percent of the regulated area. The program is continuing releases of several flies to supplement their current population levels, with nine locations receiving one to three species in FY 2014, including two locations in California. Reducing IFA populations will allow native ants to compete for resources, thus helping to restore ecological balance.

The FCREP Program also addresses KB a fungal disease of wheat, 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 KB is not known to occur. The KB 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. By keeping KB contained to a small area, the program indirectly protects more than 45.5 million acres of wheat production across the United States. USDA's Economic Research Service estimated in 2010 that, without the program's KB efforts, there would be a cumulative reduction of national net farm income of $8 billion over the next eight years. In 2014, 37 wheat-producing States participated in the KB national survey. The program anticipates testing 1,300 samples for the year, with no positive samples reported as of October 28, 2014. Based on this national survey, the program certifies wheat exports to be free of KB, 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 totaled $10 billion in 2013. Without the KB program to certify these exports, this trade would be disrupted.

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 and South Carolina. These activities consist of treating infested acres, conducting post-eradication surveys, and addressing any new infestations. In FY 2014, APHIS and cooperators conducted surveys on 69,000 acres and treated 2,888 acres. The program projects that 1,489 acres will be infested at the end of the 2014 growing season, which is an increase of about 95 acres over FY 2013. Because witchweed seeds can remain viable in the soil for up to 10 years, year-to-year fluctuations in the number of acres infested are common. APHIS expects the overall number of acres infested to decrease to 1,150 by FY 2016. 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 95 million acres of corn valued at $63 billion in 2013 (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 United States 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-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. 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. 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 2014, APHIS and cooperators conducted a total of 253 commodity- and taxon-based surveys in 50 States and 2 territories (with 116 surveys conducted by States and 137 by APHIS). The program targeted 100 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 85.5 percent of the target pests suggested for survey in the 2014 CAPS Survey Guidelines. Including pests of State priority, the program targeted 247 unique pests for survey in FY 2014, surpassing its performance target of 200. Surveys consisted of multiple pests for efficiency and economy of survey, with an average of five to six pests per survey and two to three surveys per State. Along with surveys conducted through the 2014 Farm Bill Plant Pest and Disease Management and Disaster Prevention program, APHIS and cooperators added 116 additional commodity surveys and targeted 334 unique pests overall.

Seventeen 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 17 new plant pests were significant and listed as reportable/actionable and as quarantine pests where action would be taken if detected on conveyance at a port of entry. Examples include *Syricoris* launana (Dark strawberry tortrix) in Oregon, *Podosphaera caricae-papayae* (a powdery mildew fungus) and *Orobanche aegyptiaca* (Egyptian broomrape) in California, *Eriococcus lagerstroemiae* (Crepemyrtle scale) in Texas, *Lycorma delicatula* (Lantern fly) in Pennsylvania, *Heliocoverpa armigera* (Old world bollworm) in Puerto Rico, and *Aceria tounefortiae* (an eriophyid mite) in Florida. The program's target for FY 2014 was to detect 80 percent of the significant pest introductions before they spread from the area of original colonization and caused significant economic or environmental damage, and the program actually detected 88 percent. Only one of these, *Helicoverpa armigera* in Puerto Rico, was 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' efforts to protect agriculture and natural resources from invasive plant pests and to support trade by developing tools to enable or improve the detection of exotic pests in survey programs; developing molecular diagnostic tests and identification tools for pest identification in support of domestic programs and imports of plants for planting; and developing integrated pest management methods, including biological control. The program also develops tools important for eradicating or managing invasive pests; conducting pest risk analysis to address phytosanitary requirements for imports, and support for exports of U.S. agricultural products; and developing phytosanitary commodity treatments to support interstate and international trade. In addition, the program develops and implements biological control technologies that allow natural enemies to be used 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. The program exceeded its FY 2014 annual performance target by developing or improving at least four quarantine treatments for commodities of trade. These treatments include validating ionized radiation or cold treatments that facilitated domestic and international trade.

The PPMD 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. These tools provide users with matrix-based keys, image galleries, fact sheet collections, and other support aids valuable for identifying pests, diseases, and weeds of interest to APHIS and its partners. In FY 2014, APHIS, in cooperation with the University of Queensland, released 10 Lucid Mobile applications for plant pests on Android and Apple. Lucid Mobile enables identification, diagnostic knowledge, and expertise to be carried around for in-field identification and diagnostic support without requiring an internet connection. Three examples of tools include: 1) *Citrus Diseases Key*; 2) *Dried Botanicals Key*; and 3) *Palm Screening Aid Key*. The tools are illustrated and enable non-experts working in the field to support pest screening and identification.

The PPMD Program harnesses risk mapping to create pest risk maps that enable them to make informed decisions on management of exotic plant pests. Previously, APHIS used a web-based system that uses biological models and geo-referenced weather data to create maps, while Geographic Information System software allow the user to combine, display, and analyze many types of spatial data. In FY 2014, APHIS partnered with North Carolina State University to validate the Generic Pest Forecasting System (GPFS) that incorporates population growth to improve upon existing models. The GPFS helped examine population models for Oriental Fruit Fly and Light Brown Apple Moth. Through the validation of studies, the program gained valuable information on how to improve some of the modeling tools available to APHIS, which can be utilized for additional invasive species in the future.

APHIS also maintains its own quarantine and/or rearing facilities for biological control agents in Arizona, California, Colorado, Massachusetts, Michigan, Texas and Guatemala. In FY 2014, APHIS partnered with State departments of agriculture, USDA's Agricultural Research Service, the U.S. Fish and Wildlife Service, 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.

In FY 2014, the program met its performance measure target of 77 for the cumulative number of biological control projects that are developed, implemented, or transferred to States and other stakeholders. APHIS initiated new Agency biological control efforts for Asian longhorned beetle and spotted wing drosophila. The program also met its performance measure target of 23 for the cumulative number of released biological control agents that have become established and sustainable, with the addition of the hemlock woolly adelgid predator *Scymnus coniferarum* from the Pacific Northwest. Selected 2014 biological control projects are highlighted below:

Spotted wing drosophila (SWD)

Since its confirmed identification in the western United States in 2008, SWD has become established in nearly every State. Damages reported in the first year of discovery in California reached $500 million. The fly is a pest of berry crops, cherries, grapes, and other soft bodied fruits such as peaches, nectarines, and apricots. In addition to losses due to the fly, its presence has disrupted established integrated pest management (IPM) principles. IPM is the coordinated use of pest and environmental information with available pest control methods to prevent unacceptable levels of pest damage by the most economical means and with the least possible hazard to people, property, and the environment. In 2014, APHIS initiated support for research efforts to: 1) understand the impact of resident natural enemies on SWD, and 2) locate exotic natural enemies of SWD as potential biological control agents in the United States

Asian longhorned beetle (ALB)

ALB continues to be discovered in the United States and requires intensive and expensive efforts to eradicate. ALB is currently under Federal control measures for infestations in New York, Massachusetts, and Ohio. A biological

control agent would be a significant component to current ALB management efforts. In 2014, APHIS initiated cooperative efforts with USDA's Agricultural Research Service and Korea to locate natural enemies, particularly egg parasitoids, in parts of East Asia where ALB is native and not considered a pest.

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, the light brown apple moth (LBAM) and the European grapevine moth (EGVM). Overall, the program directly protects nearly 1.6 million acres of specialty crop production by containing and controlling pests and diseases of concern. The production area directly protected was worth more than $9 billion in 2012, according to the 2012 Census of Agriculture. The program indirectly protects an additional 2.7 million acres of specialty crop production worth nearly $18 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 $8.4 billion, according to an internal APHIS report using National Agricultural Statistics Service (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 80 percent of the total acres in production (962,100 acres in FY 2012, according to NASS). In FY 2014, APHIS and the California Department of Food and Agriculture (CDFA), along with industry partners, continued the successful effort to eradicate EGVM. As a result of no new EGVM detections during 2 years of surveillance, APHIS removed 153,680 acres from the quarantined area (which mainly includes portions of Napa County and extends slightly into Sonoma County). APHIS and program partners detected only 1 moth in FY 2014, compared to 40 the previous year (and down from more than 10,000 in 2009, the first year after EGVM was first detected). The single detection occurred 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. In FY 2015, APHIS and CDFA will continue intensive survey activities in Napa and other areas to ensure that EGVM is not present. If there are no further detections, APHIS expects to remove all EGVM quarantines by the end of FY 2016. APHIS would continue monitoring for EGVM to ensure that any moths present would be detected quickly. A technical working group is currently evaluating 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 prevent the spread of the disease from citrus and nursery stock production areas to vineyards. In FY 2014, the program conducted surveys for the pest in 49 California counties and continued area-wide suppression activities in affected agricultural production areas of three California counties. One county that the program previously conducted treatments in had no GWSS detections and did not need suppression treatments. With citrus growers' voluntary suppression treatments, the program covered more than 26,000 acres. Of the more than 46,000 shipments of nursery stock from infested areas, only 11 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. Together, the EGVM and GWSS programs directly protect grape production worth nearly $2.9 billion each year in the impacted areas and protect another $2 billion worth of grape production through preventing the spread of the pests to new areas (figures derived from internal APHIS report using 2012 NASS data).

Citrus

Citrus fruits are high-value specialty crops and a nutritious food for consumers across the world. In FY 2013, 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 continued ability of the citrus industry 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 2014, APHIS established the HLB Multi-Agency Coordinating (MAC) Group made up of Federal, State, and citrus industry representatives to find strategies to help citrus growers maintain productive orchards. Additional detail on how APHIS is using the funding provided through the General Provision is discussed in the section labeled "Multi-Agency Coordination Group." APHIS also continued its ongoing citrus health activities, including supporting area-wide management of the Asian citrus psyllid (ACP), an insect vector that spreads HLB, in Florida by providing survey data every 3 weeks to the growers participating in Citrus Health Management Areas (CHMAs). Citrus growers participating in CHMAs, which was 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 486,000 acres, or nearly 93 percent of the State's 524,426 total citrus acres in production. ACP counts are significantly lower when ACP management is coordinated. In FY 2014, the program expanded citrus greening quarantines in Texas from two to five counties, and the number of California counties partially or completely quarantined because of the Asian citrus psyllid (ACP) increased from 12 to 14. However, APHIS' flexible regulatory protocols have minimized the impact of the quarantines on growers, who can move citrus out of quarantined areas to packing houses if they follow mitigation procedures to prevent the disease or its insect vector from spreading. APHIS and its State counterparts are supporting California and Texas growers as they initiate CHMAs similar to those in Florida to coordinate efforts to combat the spread of ACP and/or HLB. In FY 2014, APHIS also continued a biological control program targeting ACP. This program, which employs a predatory wasp against ACP, will augment current management methods, especially in residential areas in California, Arizona, and Texas, where use of chemical pesticides is not desirable. With the HLB MAC Group, APHIS plans to increase the number of biological control agents reared and released from 4 million in FY 2014 to 10 million by FY 2016. These citrus health activities directly protect citrus production on more than 780,000 acres in the United States worth more than $3.3 billion for the 2013-2014 growing season (NASS 2014 Citrus Fruits Summary). Without APHIS' activities, citrus exports could be at risk each year. In 2013, the value of U.S. citrus exports totaled $1.05 billion.

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 1 billion sterile Medflies per week in FY 2014 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 expanded the Medfly free area in Mexico, Guatemala, and Belize to 148,341 square kilometers in FY 2014 (an increase of approximately 3,000 square kilometers over the previous year). Domestically, APHIS and State cooperators maintain the cooperative Preventive Release Program (PRP), which releases sterile fruit flies in high-risk areas to prevent any introduced fruit flies from reproducing and establishing a population in the United States. In the 1990s, prior to the establishment of the Medfly PRP in California and Florida, APHIS and cooperators spent more than $162 million (nearly $700 million adjusted for 2014 dollars) and quarantined a total of 3,362 square miles. In the following decade -- after the implementation of the PRP -- costs directly related to Medfly quarantines were less than $15 million and involved fewer than 900 square miles. When outbreaks occur, APHIS and cooperators implement immediate emergency response activities to eradicate them. APHIS worked with California to eradicate a Medfly outbreak in the Los Angeles area in FY 2014. APHIS also responded to three Mexican fruit fly (Mexfly) outbreaks in the Lower Rio Grande Valley, along both sides of the U.S.-Mexico border (response efforts related to two of the outbreaks will be ongoing in FY 2015). APHIS increased sterile Mexfly production from 140 million flies per week in FY 2013 to more than 160 million flies per week in FY 2014 to help respond to these outbreaks. Eradicating Mexfly from this area protects citrus production in the LRGV, worth an estimated $64 million in 2013 (NASS).

In FY 2014, APHIS and cooperators in New York continued surveys to confirm that plum pox virus (PPV), a disease that affects stone fruit, is eradicated from the last affected area in the United States (Niagara County, New York). Based on 3 years of negative survey results, APHIS lifted quarantine regulations on Orleans and Wayne Counties in FY 2013. The last PPV detection in Niagara County occurred in FY 2011, and APHIS is preparing to lift quarantine regulations from this last area, making the United States free of PPV. In FY 2014, APHIS and the State of California continued to monitor the LBAM and found that the pest had spread to two new counties. APHIS continues to evaluate pathways through which LBAM could spread and ensure that California products can be moved safely.

APHIS has continued streamlining the *P. ramorum* regulatory framework for nurseries shipping hosts nursery stock interstate thereby relieving regulatory burden on majority (92 percent) of the low risk nurseries located in California, Oregon, and Washington. *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 Oregon. In July 2013, APHIS de-regulated more than 1,400 non-host nurseries in California, Oregon, and Washington based on a reassessment of how the disease is most likely to be transmitted and over 10 years of scientific data. In January 2014, APHIS further relieved regulatory burden on additional 1,400 interstate host nurseries in California, Oregon, and Washington that have been negative for *P. ramorum* since 2011. These lower-risk nurseries will now be able to ship products more easily. Since March 2014, nurseries positive for *P. ramorum* located anywhere in the country and shipping host nursery stock interstate will also be regulated. APHIS and State inspectors henceforth will, focus on the highest-risk nurseries located in the quarantine areas and those that have been previously and newly positive to prevent the disease from spreading through nursery stock shipments and sales.

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 $1.1 billion (APHIS Internal Analysis based on NASS 2011 Summary of Non-Citrus Tree Fruits). Through keeping pests and diseases like PPV and light brown apple moth from spreading to new areas, the program indirectly protects more than $12 billion in fruit and nursery stock production (figures from 2012 Census of Agriculture).

Potatoes

APHIS addresses two major potato pests, the pale cyst nematode (PCN) in Idaho and the golden nematode 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 2014, APHIS tested nearly 65,000 soil samples in Idaho for the PCN eradication effort and approximately 4,500 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 successful treatments, APHIS removed approximately 4,000 acres from the quarantined area in FY 2014. Producers will now be able to plant potatoes in these fields, and APHIS and cooperators will continue monitoring them for several years to ensure PCN is not present. 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. Also, during FY 2014, surveys showed that one field that was already regulated because of contact with infested fields was actually infested, bringing the total of infested fields to 22. APHIS and New York cooperators also surveyed 1,699 acres for golden nematode and conducted 1,206 regulatory treatments to ensure that equipment moving out of the affected area does not pose a risk for spreading the nematode. Together, these efforts directly protect potato production worth $382 million in and around impacted areas. These programs indirectly protect one million acres of potato production nationwide worth $3.65 billion (NASS). Without these programs in place, trading partners might not accept U.S. potatoes, exports of which were worth approximately $216 million in 2012 (NASS).

7. Tree & Wood Pests

The Tree and Wood Pests (TWP) Program protects forests, private working lands, and natural resources from the Asian longhorned 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.

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. In FY 2014, APHIS successfully eradicated ALB from Boston, Massachusetts. The program continues to conduct surveys in regulated areas of New York, Ohio and Massachusetts. The program successfully completed the delimitation survey of the Worcester, Massachusetts infestation in 2014.

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 2014, the program worked to examine new detection technologies (such as traps), the impact of beetle biology and the time elapsed between surveys on survey effectiveness, and the impact of extending the timeframe for the application of preventive treatments.

In 2014, APHIS reprogrammed $4 million to the TWP program to respond to a new outbreak of ALB in Long Island, New York. This reprogramming allowed APHIS to continue its progress with the eradication timetable in other program areas, which included surveying in New York and Massachusetts, as well as tree removals in Ohio. The additional funding will enable the program to complete delimitation surveys several years earlier, which will reduce the dispersal and spread of ALB populations and the subsequent infestation of more trees. APHIS increased the amount of area surveyed to cover the 51 square-mile regulated area and removed an estimated 3,900 infested and/or high-risk trees in Long Island, New York.

APHIS measures performance by tracking progress toward eradication. The program met its targets for FY 2014 and completed 100 percent of the New Jersey program, 76 percent of the New York program, 25 percent of the Massachusetts program, and 3 percent of the Ohio program. Because of required treatment cycles, programs only show improvement in this indicator after an area has been treated for approximately three years. The Ohio program is still in the early stages and will not likely show notable progress with this measure until 2015.

Another forest pest of concern for the program is the EAB, which was first detected in Michigan in 2002 and has since been detected in 23 additional States, an increase of two since the end of FY 2013. Even though the pest was detected in these two States in FY 2013, it had likely been introduced into those States years earlier. The detections resulted from the program's use of a new risk-based model to determine the best places to focus their survey and trapping efforts. APHIS works with Federal, State, and local agencies and stakeholder groups 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. In addition, APHIS will continue with regulatory

enforcement at the leading edge of the infested region, outreach activities and national coordination with impacted States.

The biological control initiative provides a promising strategy using three parasitic wasps for long-term EAB management. In FY 2014, the program conducted trial releases of the wasps in 18 States: Colorado, Connecticut, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and Wisconsin. Current trial releases are focused on assessing the impacts of the wasps on EAB populations and tree health at and near release sites. An initial assessment of these impacts is expected to take several more years. In FY 2015, APHIS plans to release the biological control agents in all States that request them. The program released a total of 702,000 parasitic wasps in 2014.

The 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. Based on the detection of infestations in unregulated areas of previously affected States, APHIS expanded the quarantine area to approximately 540,000 square miles. To prevent further artificial spread, the program regulates EAB host materials such as logs, firewood, and nursery stock. In 2014, APHIS maintained approximately 1,000 compliance agreements with businesses that handle EAB host materials. These agreements enable the program to regulate the treatment and movement of these host materials from quarantined areas.

In 2014, the EAB generally infested area grew by 19 percent, exceeding the projected growth estimated at 5 percent. In addition, more detections outside of regulated areas were recorded in 2014; there were 57 detections in 2014, up from 32 in 2013. These results were likely due to 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.

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 19 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. Compliance agreements are issued and public outreach is conducted 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 2014, APHIS and State cooperators continued to conduct EGM surveys to detect, delimit, and eradicate any isolated populations. During the year, the program added two new counties to the quarantine area (Cook and Lake Counties in Minnesota).

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. In September 2013, a single AGM was found in Oklahoma as part of a delimiting survey being conducted in response to the 2013 detection of AGM in the State. In addition, a single AGM was found in South Carolina in 2014. APHIS aims to eradicate any developing AGM population at the first opportunity, which, based on the moth's biology, normally begins the following season. A review of the trapping data and the area surrounding the find is underway to determine the appropriate response.

Selected Examples of Recent Progress – Wildlife Services:

1. Wildlife Damage Management

APHIS Wildlife Services provides the only dedicated Federal leadership 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 program's success. To accomplish these goals, APHIS works with Federal and State agencies, Tribes, county and municipal governments, private homeowners, farmers, ranchers, and other property owners.

Agriculture

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

In FY 2014, APHIS personnel continued to assist livestock producers to protect their millions of sheep and lambs, cattle and calves, and goats from predation. The Agency estimates the value of predation losses prevented annually to approach upwards of $150 million. In FY 2014, an Agency assessment indicated that every Federal dollar spent on livestock predation management resulted in $10.88 in livestock saved. In FY 2014, APHIS provided assistance to more than 11,643 livestock producers in the western United States alone. In New Mexico, APHIS protected more than 462,000 head of cattle, sheep, and goats valued at more than $364 million. Internal analysis estimates that the WDM program helped save more than $4.5 million worth of livestock from predation in New Mexico during that year. In an external analysis conducted by the University of Wyoming, each dollar spent in Wyoming on predation management saved between $1.60 to $2.30.

APHIS plays a major role in the management of wolves and grizzly bears in the United States. As in previous years, APHIS personnel continued to work with State wildlife agencies, the U.S. Fish and Wildlife Service, and tribes to conduct wolf damage management programs, and provided additional services to capture and mark wolves and grizzly bears for research and population monitoring purposes. In FY 2014, APHIS responded to 140 reported wolf depredations on livestock incidents in the state of Montana alone. That same year, in Michigan, Minnesota, and Wisconsin, the program responded to more than 300 complaints regarding wolves and verified 165 incidents of wolf damage to property, livestock, pets, and humans.

Feral swine are a harmful and destructive invasive species, and they inflict significant damage to property, agricultural animal health and crops, natural resources, public health and native ecosystems. Currently, the total aggregate cost of damage caused by feral swine in the United States is estimated to be $1.5 billion annually, with more than half of that amount due to direct damage to agriculture. In FY 2014, APHIS initiated the National Feral Swine Damage Management Program 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 reducing or eliminating feral swine populations. APHIS is executing this goal with the cooperation of States, Tribes, and other Federal agencies and organizations. Together, with our partners in several States, APHIS established State-level management control plans that outline management goals and objectives, which range from total elimination of feral swine populations to management of individual populations.

In FY 2014, APHIS and its cooperators conducted operational activities on approximately 110 million acres. Another important accomplishment for FY 2014 is the establishment of three regional helicopter support teams in Tennessee, Oklahoma, and Texas. These helicopter teams provide support to all States and serve as an important strategy in meeting our goal. Another key part of the national program includes surveillance and disease monitoring to protect the health of our domestic swine. APHIS collected 2,800 feral swine biological samples to assess disease risks. Research activities included preparing a national survey to measure feral swine damage to agriculture, along with making progress to develop a possible toxicant and safe delivery system. The program also made progress

towards establishing collaborative efforts in Mexico and Canada to monitor feral swine populations and associated risk along borders between these countries and the United States. Finally, beginning in FY 2013 and continuing into FY 2015, APHIS is completing an Environmental Impact Statement to evaluate alternatives to the program's management approach.

APHIS wildlife disease biologists provided technical assistance, conducted surveillance, and maintained control of more than 60 wildlife diseases, pathogens, and syndromes. Internationally, the National Wildlife Disease Program served as an associate on the Food and Agriculture Organization's Scientific Task Force on Wildlife Diseases, worked with a United States Army Medical Research Unit in Kenya on zoonotic diseases, and assisted the Defense Threats Reduction Agency on emerging diseases in Uzbekistan, Bangladesh, and China. The program also implemented a Memorandum of Understanding with the Chinese Academy of Sciences on wildlife disease surveillance, and collaborated with the USDA Foreign Agricultural Service, Swedish University of Agricultural Sciences, and Colorado State University on emerging One Health issues in Africa, Cambodia, and Southeast Asia.

Human Health and Safety

APHIS is the lead Federal agency for conducting oral rabies vaccination (ORV) campaigns to protect public health by working to eliminate and prevent the spread of rabies in wildlife. In FY 2014, APHIS and cooperators distributed more than 8.1 million ORV baits in 15 States as a continuation of the strategic distribution of more than 148 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 in the absence of the APHIS led oral rabies vaccination (ORV) program over a 22 year horizon.

An improved vaccine-bait combination would hold significant promise for enhanced raccoon rabies control in the United States. Beginning in FY 2011, and continuing into FY 2014, APHIS successfully conducted field trials for an additional oral rabies vaccine (ONRAB). In FY 2014, the program began an ONRAB field trial targeting skunks in West Virginia by quadrupling the standard raccoon bait density and narrowing flight-line spacing to be more in sync with the smaller skunk home ranges (when compared to raccoons). The program recently concluded post-bait sampling in West Virginia, Ohio and New York/Vermont/New Hampshire for FY 2014 and expects results by summer 2015.

Wildlife strikes cost commercial aviation more than $935 million annually in the United States, and approximately $1.2 billion worldwide. Since 1988, when APHIS started collecting data, bird and other wildlife strikes have destroyed 100 civilian and military aircraft in the United States, killing 58 people. In FY 2014, APHIS provided assistance to nearly 850 airports and airbases nationwide to mitigate wildlife hazards. This effort involves wildlife hazard management programs. For example, APHIS provided recommendations on ways to manage wildlife habitat conditions and provided daily management of wildlife hazards to aircraft at the Chicago O'Hare International Airport. APHIS has similar programs at more than 140 domestic and international Department of Defense airbases that reduced wildlife strikes to military aircraft.

Property

In FY 2014, APHIS conducted beaver damage management activities in 41 States, including five State/region-wide programs supported by cooperator-provided funds. In North Carolina, the Agency conducted more than 1,100 projects, reducing damage by an estimated $10.7 million, and saving nearly $5.40 for every dollar spent on the program. In Mississippi, every dollar spent on APHIS' beaver management program saved between $1 and $38 in reduced timber damage. In South Carolina, the Agency conducted beaver management projects on 1,337 properties, reducing damage by an estimated $2.3 million. In Wisconsin, APHIS worked with the State, tribes, and the U.S. Forest Service to protect and restore more than 1,500 miles of trout streams and economically and culturally important wild rice beds, and to protect roads, bridges, impoundments, and railroads. Beaver damage management in Tennessee protected more than $14.5 million in resources including; timber, roads and bridges, crops and pastures, drainage control structures and utilities. APHIS conducts statewide cooperatively-funded management programs in several other States across the United States.

Invasive Species

Non-native, invasive animals can devastate ecosystems. APHIS' WDM program focuses on eliminating damage from brown treesnakes (BTS), nutria, and other invasive species.

BTS have eliminated most species of native birds, lizards, and bats in Guam, and cause economic losses and public safety problems due to power outages. In FY 2014, APHIS continued leading a multi-agency partnership to prevent BTS movement from Guam to other Pacific Islands, Hawaii, and the continental United States pursuant to funded agreements with other Federal departments and the Guam Department of Agriculture. The Agency intercepted approximately 19,000 BTS in Guam. In FY 2014, 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. Between September 2013 through January 2014, APHIS and its partners conducted a total of nine bait drops on the two treatment sites. 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 has provided preliminary data that indicates a 75 percent reduction in BTS activity in the treated area and no evidence of impact to non-target species. This demonstration project is expected to continue in FY 2015 and will help further evaluate the method and potentially improve operational control of BTS on Guam.

Nutria damages wetlands, agricultural crops, and structural foundations such as dikes and roads. APHIS is leading the first large-scale North American effort to eradicate a mainland nutria population in the Chesapeake Bay through funded 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 216,000 acres of coastal marshland that is monitored continuously to detect and remove nutria. APHIS has prevented the re-infestation of this area, and marsh grasses and native muskrat populations are quickly recovering. In FY 2014, the program removed nutria from 35,000 acres and completed the removal of the last known breeding population of nutria on the Delmarva Peninsula. APHIS will monitor approximately 250,000 acres over the next few years to find and remove any remaining individual nutria.

Natural Resources

APHIS partners with various Federal and State resource agencies, private organizations, and community groups to carry out damage management actions that benefit protected bird species by protecting nests, eggs, juveniles, and adults from predation. Damages from these birds, including threatened and endangered species, have been estimated to be more than $33.5 million. Between FY 2011-2014, the Agency conducted 483 conservation actions that benefitted protected species in 37 states, Guam, Virgin Islands, and Cuba (Guantanamo Bay).

In FY 2014, APHIS received the Presidential Migratory Bird Federal Stewardship Award, in recognition of the management of raptor-human conflicts to promote safety and migratory bird conservation. APHIS was selected by The Council for the Conservation of Migratory Birds, led by the U.S. Fish and Wildlife Service, including many other Federal agencies with migratory bird responsibilities.

Over the past 10 years, APHIS conducted a national effort with cooperator funding to reduce human-wildlife conflicts associated with raptors, or birds of prey. Conducted across the country, this large, complex program included both operational activities and research at the National Wildlife Research Center. Many of the raptor-human conflict management issues involved the high profile human health and safety issue of collisions between birds and aircraft. During 2004-2013, more than 13,700 individual raptors, representing at least 32 different species, were successfully live-trapped and relocated away from the environment where the conflict was occurring and where the birds themselves and other resources were at risk, such as an airport. About 5 percent (more than 650 individual birds), were species of concern such as short-eared owls, golden eagles, and Mississippi kites.

2. Wildlife Services Methods Development

The Wildlife Services Methods Development (WSMD) Program develops effective and socially responsible methods and information for managing conflicts between people and wildlife to protect agriculture, natural resources, human health and safety, and property. This program includes basic research in support of the Agency's animal health programs, discovery of new science and technology, information analysis and context development, product development, and technology transfer. APHIS' National Wildlife Research Center (NWRC) provides the only dedicated Federal leadership in developing methods to manage wildlife-related damage problems. More than 80 percent of NWRC research protocols involve partnerships with entities such as State and Federal agencies, non-governmental organizations, universities, tribal governments, and private sector businesses. In FY 2014, NWRC conducted 329 studies and published 83 scientific studies in 47 different professional scientific journals and book chapters.

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.

Aided by both an adaptable biology and deliberate introductions by people, the range of invasive feral swine in the United States has expanded from 17 to at least 39 States over the past 30 years. In FY 2014, APHIS initiated a National Feral Swine Damage Management Program aimed at reducing feral swine damage. A critical component in the long-term success of reducing feral swine populations will be an effective toxicant and delivery system. In FY 2014, the NWRC initiated a multi-year research project 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.

The reintroduction of the gray wolf to the Northern Rockies marks a tremendous success for conservationists, but has also resulted in increased conflicts with livestock producers. Many western ranchers use livestock protection dogs (LPDs) to deter predation by coyotes. However, historically, breeds of LPDs have been less effective against wolves and grizzly bears, which sometimes in turn kill these traditional breeds. NWRC scientists initiated a series of studies to evaluate three larger breeds of LPDs that have been used successfully to deter livestock predation by wolves in Europe. The researchers placed 25 imported LPDs with 17 sheep operations in 4 states (Idaho, Montana, Oregon, and Washington) and are monitoring their effectiveness at preventing bear and wolf predation on sheep and behavioral compatibility of these breeds in terms of aggression towards humans. APHIS will continue to monitor the effectiveness of these breeds over the next several years.

Invasive roof rats and native deer mice cause damage to some nut and fruit orchards in California and other parts of the United States. The NWRC, in collaboration with University of California researchers, developed improved management strategies that reduced the amount of diphacinone pesticide needed while maintaining a 90-99 percent control efficacy. Additional benefits accrued are improved wildlife non-target safety margins.

Columnaris is the second most prevalent bacterial disease in farm-raised catfish in the United States. The NWRC identified risk factors affecting susceptibility of farm-raised channel catfish to columnaris disease. The analysis identified pond depth, reduced feed consumption by fish, shorter intervals from stocking to disease outbreaks, and levels of ammonia nitrogen as associated with the appearance of columnaris. This information will be used by NWRC scientist to develop management strategies for this economically important disease to the aquaculture industry.

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.

Invasive rodents have had a major impact on native ecosystems in Hawaii. In FY 2014, NWRC evaluated whether invasive rodent communities change when pastureland is converted to native dry forest during efforts to restore native forests. The investigators documented major shifts in the invasive rodent community, from mouse-dominated to rat-dominated populations during restoration. This information will be useful for adjusting management strategies during habitat restoration projects.

Numerous local and Federal agencies are involved in efforts to reduce the invasive brown treesnake population on Guam and prevent the species' spread to other islands in the Pacific. In FY 2014, APHIS, in cooperation with the Guam Department of Agriculture and the U.S. Departments of Defense and Interior, deployed a broad-scale aerial baiting technique aimed at reducing the number of brown treesnakes in targeted areas of northern Guam. The baiting resulted in a 75 percent reduction in snake populations. The successful aerial delivery of bait is a critical next step toward developing an effective method for large-area control of the snakes, particularly in remote and inaccessible parts of the island.

Human Health and Safety

The WSMD program protects human health and safety by developing methods to prevent or minimize bird-aircraft collisions, prevent the spread of bovine tuberculosis, and minimize conflicts between people and wildlife. The following are examples of efforts to protect human health and safety.

Adrenocortical disease (ACD) is a common problem in surgically sterilized, older ferrets. Ferrets are the third most popular domestic pet in the United States. NWRC researchers and partners investigated whether the immunocontraceptive vaccine GonaCon, developed by NWRC to reduce fertility and spread of disease, can prevent or delay the onset of ACD and treat hair loss in pet ferrets with existing ACD. GonaCon provided relief from ACD and caused many ACD symptoms to disappear, allowing the ferrets to return to a normal life. The study found that ACD was significantly reduced in ferrets treated with GonaCon. This application and spin-off use is currently under license negotiations with the private sector. APHIS will apply the technology gained through this research to other wildlife damage management research programs in the future.

Bovine tuberculosis (bTB) impacts approximately 10 to14 percent of cattle in developing countries, and can impact movement and trade in the United States. Examining the concept that breath can contain volatile organic compounds (VOCs) used to assess animal health, APHIS developed a method and device to diagnose bTB status based on VOC profiles from the cattle's breath. This new technique could form the basis for a real-time cattle monitoring system that allows efficient and non-invasive screening for new bTB infections at dairy farms. NWRC has submitted a patent for approval.

Brucellosis is one of the many zoonotic diseases that can be carried and transmitted from feral swine to humans, livestock, pets, and wildlife. In FY 2014, NWRC researchers showed that 12 percent of samples from areas with high brucellosis prevalence were positive by genetic testing. Standard antibody testing failed to detect half of the genetically positive samples. The researchers noted that improved serologic tests are needed to more accurately determine feral swine exposure to *Brucella* spp., and to monitor disease trends in feral swine populations.

Radar has been used for detecting hazardous wildlife at airports. NWRC evaluated the performance of an avian radar system. Preliminary results indicate that bird detection rates for the radar system are below 20 percent at the airport, and that bird behavior, ground clutter, and other factors reduce the ability of the radar system to detect bird movements in or near the airport environment. These studies indicate that it is premature to solely rely on commercial bird radar systems for bird hazard risk assessments at airports.

Partnerships and Technology Transfer

NWRC regularly partners with universities, private industry, and other government agencies to develop and transfer technology to manage wildlife conflicts. In FY 2014, the NWRC entered into 1 Cooperative Research and Development Agreement, 10 Confidentiality Agreements, and 22 Material Transfer Agreements; began negotiations for 3 licenses; submitted 4 invention disclosures; and received 1 patent and approval for another patent.

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, Custom 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 2014, APHRE issued 792 Official Warnings, along with 1,702 pre-litigation settlements that resulted in the collection of $1,194,688 in stipulated penalties, and obtained administrative orders assessing $1,014,111 in civil penalties. By streamlining business processes and focusing on the highest priority investigations for APHIS's animal and plant health programs, APHRE also achieved the long-term performance measures that it established for itself in FY 2011, and, since then, 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). Highlights from each APHIS program are described below.

To support animal health, APHRE initiated 141 cases, issued 38 Official Warnings, and issued 7 pre-litigation settlements, resulting in the collection of $17,376 in stipulated penalties against persons for violations of laws aimed at protecting animal health and American agriculture. APHRE also worked to prevent and deter the entry of the Highly Pathogenic Avian Influenza (HPAI) into the United States by investigating 14 cases involving avian health related matters. For example, APHIS found that a passenger arrived at a U.S. port of entry failed to declare 738 vials of avian blood samples in his possession or provide necessary documentation to support the entry of the material. In response to a report of falsified certificates of veterinary inspection involving hatching eggs, APHRE investigated and discovered nine shipments of hatching eggs exported from the United States to Russia under fraudulent health certificates, during a pause in trade pending further negotiations between the countries. APHRE also provided investigative support in connection with tracing the ownership and origin of a bird that tested positive for HPAI.

To support plant health, APHRE initiated 66 cases, issued 29 Official Warnings, issued 32 pre-litigation settlements resulting in the collection of $82,850 in stipulated penalties, and obtained administrative orders assessing $24,000 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 fraudulent International Plant Protection Convention, International Standards for Phytosanitary Measures for wood packing materials, resulting in the assessment of a $24,000 civil penalty. The program also supported the filing of a high-profile administrative complaint and cancellation of compliance agreement for nursery stock production under a Federal order involving the *P. ramorum* program.

To support AQI activities, APHRE initiated 2,118 cases, issued 129 Official Warnings, issued 1,598 pre-litigation settlements resulting in the collection of $774,274 in stipulated penalties, and obtained administrative orders assessing $369,500 in civil penalties for alleged violations of animal and plant health laws identified at U.S. ports of entry. With respect to administrative orders, APHRE obtained several successful administrative consent decisions and orders, including one resolving alleged violations involving transportation and exportation of products through the United States resulting in the assessment of a $21,000 civil penalty, and one resolving alleged violations involving the failure to hold shipments for inspection resulting in the assessment of a $350,000 civil penalty.

APHRE also supported animal welfare and horse protection. With respect to alleged violations of the Animal Welfare Act (AWA), APHRE initiated 252 cases, issued 170 Official Warnings, issued 64 pre-litigation settlements resulting in the collection of $300,938 in stipulated penalties, and obtained administrative orders assessing $576,111 in civil penalties. With respect to the administrative orders, APHIS obtained two rulings from the U.S. Court of Appeals affirming administrative decisions under the AWA; one ruling involved a dealer who unlawfully sold 956 dogs resulting in the assessment of a $191,200 civil penalty, and the other ruling involved an exhibitor who was found to have violated the AWA in connection with the handling and care of animals resulting in the revocation of the AWA license and assessment of a $11,725 civil penalty. APHIS also obtained favorable administrative decision

and orders from the Department's Judicial Officer, including a decision involving an exhibitor found to be a repeat violator of the AWA resulting in the issuance of an order to cease and desist from violating the AWA, assessment of a $39,375 civil penalty, and revocation of his license, and a decision involving an exhibitor who was found to have violated the AWA in connection with the handling and care of animals resulting in the suspension of his license, assessment of a $11,000 penalty, and an order to cease and desist from further violations of the AWA. Finally, APHIS negotiated several strong administrative consent decisions under the AWA, including one involving a research facility that agreed to pay a $127,100 penalty to resolve allegations that it failed to properly handle and provide veterinary care for twelve muskoxen, and one involving an airline that agreed to pay $90,000 to resolve allegations that it failed to properly handle a shipment of more than 500 guinea pigs.

With respect to alleged violations of the Horse Protection Act (HPA), APHRE initiated 164 cases, issued 426 Official Warnings, and obtained 41 administrative orders assessing $44,500 in civil penalties and disqualifying 24 individuals from participating in activities regulated under 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 a 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, resulting in the disqualification of approximately eighteen individuals from showing or entering horses, or otherwise participating in any horse show, exhibition, or sale, and, collectively, the assessment of over $30,000 in civil penalties.

To support biotechnology, APHRE investigated several high-profile incidents, including three that involved the detection of genetically engineered organisms. APHRE completed one of APHIS' most thorough and scientifically-detailed investigations into the detection of genetically-engineered (GE) wheat in Oregon and through a swift response, strong field presence, and collaborative approach with scientific subject matter experts completed the investigation within 337 days, preserving the U.S. wheat market valued at nearly $13 billion. APHRE used this investigative model twice more in FY 2014 during high-profile investigations involving the detection of GE material in two other states.

2. Biotechnology Regulatory Services

APHIS aims to balance a strong regulatory system that safeguards agriculture, while allowing innovative research and development that helps to feed and clothe the world. APHIS strives for an efficient and predictable regulatory process that uses high quality, thorough, science-based reviews to protect against potential plant pest risks posed by genetically engineered (GE) organisms. Under the authority of the Plant Protection Act, APHIS regulates GE organisms that may pose a plant health risk. This authority enables APHIS to place 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.

Until APHIS can determine that a GE organism does not pose a pest risk to plants, the Agency ensures that developers, growers and others take steps to prevent unauthorized release or persistence in the environment of the GE organism. Before authorizing field trials, importation, or movement across state lines, APHIS reviews current, publicly available scientific information and data provided by the applicant to determine potential plant pest risk. Depending on the characteristics of the GE organism, the developer either files a notification application or applies for a permit. A notification is a streamlined permit for GE organisms that are less likely to pose plant pest risk. A permit is generally more restrictive than a notification, and is generally issued for GE organisms that may pose a greater plant pest risk.

When reviewing notifications and permit applications, APHIS considers available relevant scientific information and requires developers to meet conditions designed to ensure that the GE organisms are confined and do not persist in the environment after the field trial or movement. In FY 2014, APHIS authorized 1,076 notifications and 1,056 permits at 11,265 locations throughout the United States. To ensure that GE organisms meet standards outlined in an authorization, APHIS verifies compliance by inspecting fields, equipment, and other facilities. In FY 2014, APHIS, and the States (authorized by APHIS), enhanced compliance oversight by increasing inspections by more than 5 percent. Together, the program conducted more than 700 site inspections, of which approximately 99 percent were in compliance with APHIS biotechnology regulations.

APHIS' Biotechnology Quality Management System (BQMS) Program ensures that organizations involved in biotechnology research and development, including small businesses and academic institutions, have the information, processes, and procedures in place to comply with APHIS regulations. BQMS is a voluntary program that provides APHIS and industry developed standards, training, one-on-one assistance and training for auditors and third-party auditors. In FY 2014, 21 entities had voluntarily established a BQMS to manage their domestic research and development of GE organisms. These 21 entities account for 98 percent of the acreage of GE test sites that APHIS oversees.

If biotechnology developers can provide scientific information that demonstrates that the organism is not a plant pest risk, 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. When considering this request, APHIS completes an independent 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 is committed to providing a more predictable timeframe that allows developers to bring deregulated products to market more quickly, and provides growers with more choices and access to new technologies sooner. In FY 2014, APHIS reduced the time it takes to prepare a plant pest risk assessment from an average of 143 days to 87 days by using an improved petition review process first implemented in 2012. APHIS completed seven petitions, surpassing its goal of five determinations of nonregulated status. APHIS completed these petitions on average five months faster compared to the old process. Of particular note, three of these petitions completed the new process in an average of nine months faster than the historical average. These determinations of nonregulated status include six varieties of soybeans: four that are herbicide tolerant, one increasing yield, one insect resistant, and an herbicide tolerant variety of corn. APHIS also provided the public with opportunities to review both the petition request and the scientific assessments of the GE organisms while it completed its reviews. As of FY 2014, APHIS made a cumulative total of 109 determinations.

In May 2013, APHIS confirmed the presence of a GE herbicide resistant wheat plant in one field in Oregon, and subsequently found herbicide resistant wheat volunteers, which are plants that grow on their own without human intervention, in Montana. In FY 2014, after conducting a thorough, science-based investigation into the detection in Oregon, APHIS concluded that the presence of the GE wheat was an isolated incident and closed the investigation. The Agency found no evidence of GE wheat in commerce and released a full report of the findings, investigation, and evidence. The information collected during the investigation was instrumental in providing critical information to trading partners to keep foreign wheat markets open. The investigation into the discovery of wheat volunteers on a research farm in Montana is still in progress.

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, APHIS worked closely with Mexico and Canada on technical and regulatory biotechnology issues in bilateral, regional, and multi-lateral international venues in FY 2014. 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 2014, APHIS provided information about USDA's biotechnology regulatory policies and procedures to officials from 10 countries, including Brazil, China, Korea, and Japan. These activities and meetings allow other countries to make informed regulatory import decisions.

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, including foreign animal diseases (FADs) or pests. Additionally, the National Response Framework (NRF) outlines specific roles and responsibilities for preparedness and response under Emergency Support Function 11: Agriculture and Natural Resources. NRF establishes how the Federal government coordinates Federal response efforts supporting State, Tribal, and local authorities. In 2006, the *Pets Evacuation and Transportation Standards Act* and the *Post-Katrina Emergency Management Reform Act* amended the Stafford Act, which provides primary authorities for the Federal Emergency Management Agency (FEMA). Both amendments addressed assisting and accommodating household pets and service animals during natural or man-made disasters. After these Acts became law, FEMA and APHIS agreed to have APHIS provide technical support to FEMA for the care of these animals. In addition, EPR implements and oversees compliance with the *Public Health Security and Bioterrorism Preparedness Response Act of 2002*, which authorizes APHIS to regulate agents or toxins that threaten animals, plants, or animal and plant products (known as select agents and toxins). These actions safeguard the health and value of U.S. agriculture.

Preparedness, Partnerships & Planning

In FY 2014, APHIS worked with States and other Federal agencies on extensive preparedness, partnership, and planning efforts. These efforts included developing and revising: FEMA All Hazard plans; catastrophic incident plans, such as Improvised Nuclear Detonation; and other plans, such as the Medical Countermeasures plan. The Agency also helped States with their planning efforts as part of the U.S. Department of Homeland Security's (DHS) Regional Catastrophic Planning Initiative, as well as other State workgroups and planning efforts. 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 16 new preparedness products in the form of response plans, National Animal Health Emergency Management System guidelines, ready reference guides, industry manuals, and standard operating procedures. These materials help stakeholders improve their planning and response capabilities regarding animal health and foreign animal disease incidents.

In FY 2014, APHIS funded a one-year Zoo Ready Program, which included a planning workshop, Incident Command training for zoo professionals, and a tabletop exercise to better prepare the American zoological community for animal disease outbreaks and all-hazards emergencies. The Zoo Ready Exercise Improvement Plan, under development, highlights the need for preparedness information for the wildlife management community and greater integration of the zoological community with agriculture and emergency management agencies. In addition, it encourages the development of a nationally led zoo working group on FADs. The outcome of the Zoo Ready Program is the creation of the Zoo and Aquarium All Hazards Preparedness Response and Recovery Center, under the auspices of the Association of Zoos and Aquariums. This Center will act as a hub for information for the wildlife management community, strengthen partnerships with the Association of Zoos and Aquariums and other partners and stakeholders in animal preparedness and response, and explore concerns involving trans-boundary and emerging diseases affecting exotic and native wildlife.

In FY 2014, APHIS chaired the multi-agency Animal Working Group of the FEMA CBRNE (chemical, biological, radiological, nuclear, and explosives) Improvised Nuclear Device Response and Recovery Project. This Group published a planning tool, Projecting Animal Demographics in a Nuclear or Radiological Emergency, and is developing four additional work products on animal-related operational planning, resource management, research gaps, and a scientific bibliography of information on animal and agricultural response and recovery.

Preparedness Exercises

In FY 2014, APHIS Emergency Management staff, Area Emergency Coordinators, laboratory personnel, and other personnel engaged State agencies, Tribal nations, local governments, and industries to refine emergency response plans by participating in animal health or all-hazards exercises to test capabilities and identify areas for improvement. Foot-and-mouth disease (FMD) is a particular concern because of its ability to spread rapidly, the wide variety of susceptible species, and the potential impacts on the U.S. food supply and exports. To further ensure FMD preparedness, APHIS conducted a logistics exercise co-sponsored by the Texas Animal Health Commission in October 2013; assisted FEMA in developing and conducting a Food, Agriculture, and Veterinary Response Exercise Workshop in December 2013 that focused on FMD; and conducted an FMD Laboratory Receiving/Accessioning Tabletop Exercise in April 2014 to review the National Animal Health Laboratory Network's activation procedures for an FMD response.

Additionally, APHIS supported exercises to enhance multi-jurisdictional coordination capabilities. In FY 2014, Emergency Support Function 11 (ESF #11) Coordinators in the 10 FEMA regions and at the national level participated in FEMA and State exercises to provide cross functional coordination and assistance. This included national, regional, and State level preparedness efforts for the National Level Exercise series, the New Madrid Seismic Zone Capstone exercise, the Vibrant Response, and the DHS Food and Agriculture Veterinary Response Exercise planning series and exercises in 2014.

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 animal response/recovery 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 (SAADRA) as a tool for facilitating the movement of animal resources between States and for requesting resources from non-governmental organizations.

In FY 2014, the Advisory Team on Environment, Food, and Health (which includes APHIS) supported multiple nuclear power plant emergency exercises, provided eight members to support the State of Indiana in the Vibrant Response Improvised Nuclear Device exercise, and helped develop two exercises with the dairy industry on business continuity and public messaging during a radiological emergency.

Response Efforts

Emergency Support Function 11: Agriculture and Natural Resources (ESF #11) supports State, Tribal, and local authorities and other Federal agency efforts to: (1) provide nutrition assistance; (2) respond to animal and agricultural health issues; (3) provide technical expertise in support of animal and agricultural emergency management; (4) ensure the safety and defense of the Nation's supply of meat, poultry and processed egg products; and (5) protect Natural, Cultural, and Historical resources. APHIS is designated as the overall Coordinator for all five ESF #11 functions, and is the primary agency for two of the functions. In FY 2014, FEMA activated ESF #11 for three responses: Tropical Storm Karen that threatened the Gulf Coast in October 2013; Tropical Storm Bertha that threatened Puerto Rico and the U.S. Virgin Islands in August 2014; and the discovery of high toxicity levels in the water supply affecting Toledo, Ohio, in August 2014.

Foreign Animal Disease Investigations

APHIS and State animal health officials investigate suspect cases presented for foreign animal diseases (FAD) or emerging diseases. In FY 2014, there were 286 independent FAD investigations. In addition to these investigations, there were 413 confirmed cases of Vesicular Stomatitis Virus. Also in FY 2014, there were 489 confirmed cases of Swine Enteric Coronavirus Disease (SECD) since the Federal Order for SECD reporting took effect in June 2014.

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 animals and plants to register them with the CDC or USDA. APHIS is the USDA agency with the expertise and authority to review the biosafety and biocontainment restrictions of these materials. APHIS monitors their movement by identifying and registering the entities or facilities that use them.

In FY 2014, 39 entities were registered with APHIS in the Select Agents Program. In addition, 46 entities that are registered with CDC have USDA select agents. APHIS is responsible for registrations concerning the possession, use, and transfer of these agents. APHIS received 175 requests for amendments and changes to registration certificates made through CDC, and processed approximately 80 percent of them. In addition, the Agency received 195 requests for amendments from entities registered directly with APHIS and processed approximately 80 percent of these requests. The total number of technical amendments was 370. APHIS will be developing metrics in FY 2015 to improve these percentages. APHIS reviewed, approved, and processed 344 requests for changes in personnel at registered entities who are approved to work with select agents. Also in FY 2014, the Agency processed 78 transfers of select agents.

APHIS also worked with CDC to conduct 72 inspections -- 23 renewal inspections, 40 unannounced compliance inspections, 3 inspections for new entities, and 6 inspections involving amendments. To address noncompliance, the Agency issued corrective letters for minor violations and for more serious noncompliance issues. In addition, APHIS conducted joint inspections or investigations with CDC, DHS, and the Department of Defense (DOD).

In FY 2014, APHIS and CDC conducted a webinar workshop to provide additional details and guidance on the select agent regulatory requirements to the regulated community. Also in FY 2014, APHIS hired seven dedicated inspectors, who participated in an extensive training program which included a module study program, a laboratory session, and shadow inspections with more experienced inspectors. Additionally, the program provided a training session for interagency inspectors from DHS and DOD. APHIS also conducted emergency inspections for two high profile incidents involving the potential release of select agents at CDC and at the USDA-ARS Southeast Poultry Regional Laboratory. The Agency is working with the entity to update their biosafety, security, and incident response plans, as well as their standard operating procedures to ensure that future actions will be appropriate.

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. Newly emerging pest information is summarized and reported through a weekly e-mail notification. The articles are then stored in the PestLens database, providing a conceptual framework for subject matter experts to make safeguarding decisions. Personnel from both APHIS and DHS' Customs and Border Protection were granted access to the database in January 2014. In FY 2014, PestLens generated 51 weekly e-mail notifications that contained 161 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 non-traditional partners to augment other APHIS global biosurveillance initiatives. In FY 2014, APHIS, DHS' National Biosurveillance Integration Center, and the DHS Homeland Infrastructure and Threat Risk Analysis Center completed a report on the potential impacts of the Kudzu Bug on U.S. Food and Agriculture Infrastructure.

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 and negotiations 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. 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 process minimizes the risk of introducing animal diseases through imports. In FY 2014, APHIS completed several evaluations that were published in the *Federal Register*. These evaluations involved recognizing Saudi Arabia as free of African Horse Sickness and the Patagonia region of Argentina as free of foot-and-mouth disease (FMD). APHIS also evaluated the risk presented by the import of meat and meat products under certain conditions, and proposed allowing the import of fresh/frozen beef under certain conditions from 14 states in Brazil and northern Argentina. Similarly, APHIS proposed conditions for the importation of pork and pork products under certain conditions from Mexico. APHIS also concurred with the World Organisation for Animal Health classifications of several countries for their Bovine Spongiform Encephalopathy (BSE) comprehensive rule. The new classifications further facilitated trade between the U.S. and other countries.

APHIS also 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 2014, APHIS issued 9,490 import permit applications for live animals, animal products, organisms and vectors, and select agents. This was roughly the same number of permits issued in FY 2013. In addition, the Agency ensures that import regulations are effective and science-based. For example, based on a risk assessment and evaluation of existing State regulations, APHIS lifted the Viral Hemorrhagic Septicemia Federal Order, no longer restricting the importation of certain species of live fish from

Ontario and Quebec, Canada into the United States. APHIS also published a proposed rule to recognize the State of Sonora as a region in Mexico that is free of fever ticks, and to establish an exemption from certain tick treatment requirements. This proposed action would remove restrictions on the importation of cattle and other ruminants from Sonora and reduce the costs associated with tick dipping for exporters and importers of ruminants. APHIS also conducted several stakeholder engagement meetings at locations around the country to gather feedback on the future of APHIS animal import centers. The Agency will use the information gathered to shape policy and development decisions.

In December 2013, APHIS published a proposed rule to allow fresh/frozen beef with FMD mitigations to be imported from 14 States of Brazil. In March 2014, the Agency extended the comment period by 60 days, until April 22, 2014. This extension provided domestic producers with ample opportunity to register their input on this rule. APHIS is considering all comments received on this rule, and will determine whether to finalize or modify the regulatory changes. Also, in March 2014, APHIS implemented a rule that closely aligns its import regulations with international standards for BSE known as the BSE Comprehensive Rule.

Exports

APHIS estimated the value of new or maintained export markets for animals and animal products to be approximately $1.6 billion for FY 2013 (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 2014, APHIS negotiated, or re-negotiated 113 export protocols for animal products (22 new markets, 30 expanded markets, and 61 retained markets), and 103 export protocols for live animals (31 new markets, 26 expanded markets, and 46 retained markets). Also, in FY 2014, APHIS opened new markets for cattle to Ukraine, Egypt, Thailand and Trinidad. The Agency also maintained export markets for live swine to China, the European Union (EU), Ecuador, Japan, Korea and Mexico by negotiating additional requirements to address the outbreak of porcine epidemic diarrhea virus in the United States. In addition, APHIS eliminated BSE-related restrictions on U.S. exports of live cattle to Pakistan and beef or other commodities to Hong Kong, Mexico, Singapore, Vietnam, Korea, China, Thailand, Ecuador, Indonesia, Uruguay, Guatemala, El Salvador, Peru, Barbados, Malaysia, Argentina, Korea, Peru, and Brazil. APHIS reopened poultry exports from several states to Japan, China, French Polynesia, Philippines, Hong Kong, Singapore and Taiwan. APHIS conducted voluntary inspections of more than 500 U.S. manufacturing facilities to maintain, expand, or open export markets in many countries, including the EU, 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 Canada, Mexico, Morocco, Peru, Thailand, Korea, EU, Japan, Turkey, Taiwan and Ukraine. APHIS also developed information packages and questionnaire responses from various countries to maintain, expand, or open export markets.

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 addressed by USDA's Food Safety and Inspection Service (FSIS). Concerns over avian influenza (AI) and exotic Newcastle disease have caused some countries to refuse to allow imports of fresh, frozen, and chilled poultry from the United States. APHIS has been actively engaged with the Office of the United States Trade Representative (USTR) and USDA's Foreign Agricultural Service (FAS) to ensure that U.S. poultry and poultry products gain and retain access to foreign markets. The Agency provides scientific information about the health status of U.S. poultry and potential regional situations regarding potential outbreaks of poultry diseases. Because issues affecting poultry exports are complex and involve both animal and human health concerns, APHIS works very closely with FSIS, FAS, and USTR. Historically, detections of low pathogenic avian influenza (LPAI) in the United States have caused some foreign markets to maintain precautionary measures that unnecessarily impede U.S. poultry exports. Through APHIS-led efforts, however, various bilateral protocols have been established to minimize the impact of LPAI-related trade suspensions on U.S. exporters

APHIS has improved an application for electronically issuing export health certificates, which currently allows for certificates to be issued for 11 commodities to 8 countries. The Agency is expanding the capabilities of the system and the numbers of certificates issued by this system, which has received extremely positive feedback from industry stakeholders.

Lacey Act

In FY 2014, APHIS continued to assemble a dedicated staff, evaluate options for storing paper declarations, and provide outreach to industries and importers. The Agency also launched a web-based system for collecting declarations. Currently, importers submit declarations either by mailing paper forms to APHIS or electronically through a licensed customs broker and a database operated by the U.S. Customs and Border Protection (CBP) agency. Similar to FY 2013, approximately 10 percent of the declarations are submitted on paper forms that require significant resources to analyze and store securely. APHIS launched a web-based tool to help importers save time and money by filing the declaration electronically instead of using paper forms. This will allow APHIS to be more effective in reviewing declarations for compliance with the Act and provide more timely responses to requests for information by our enforcement partners in support of their investigations into violations under the Act. APHIS continues to work with CBP to further streamline the process for filing declarations in CBP's database. In addition, APHIS has two initiatives underway to save importers time and potentially money in filing Lacey Act declarations by implementing Special Use Designations (SUDs). SUDs are short-hand designations for some commodities that can be used in place of listing potentially dozens of plant species contained in the product to help importers expedite their reporting. On July 9, 2013, APHIS published an interim final rule to establish definitions for "common cultivar" and "common food crop," which are excluded from the Act. The definitions in this rule are designed to exclude most commercially grown food and fiber items from the Lacey Act requirements. The final rule is currently undergoing USDA review and clearance.

2. Overseas Technical & Trade Operations

APHIS is on the forefront of international agricultural trade, working on behalf of American agricultural producers to ensure that the industry is healthy and profitable. The Overseas Technical and Trade Operations (OTTO) Program works to prevent foreign agricultural pest and disease threats to the United States, eliminate unfair trade barriers, and establish science-based international standards for trade, as well as engage with other Federal agencies, foreign governments, and international organizations dedicated to the same goals. The OTTO program is a vital part of the U.S. Government's efforts to support agriculture and assist in expanding U.S. exports. The Agency collaborates with USDA's Foreign Agricultural Service, the Office of the US 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. APHIS plays a critical role in fostering the free flow of trade by working to remove unjustified sanitary and phytosanitary (SPS) barriers impeding U.S. exports. SPS barriers are those involving plant and animal health. In FY 2014, APHIS efforts to eliminate trade barriers and to ensure that trade decisions are based on science resulted in more than 170 resolved SPS issues worth $2.5 billion for U.S. agricultural products. This figure includes opening new markets of pet food to Belarus worth $10 million, retaining the U.S. soybean, soymeal, and cornmeal market to Malaysia worth $170 and, expanding the chilled pork market to Colombia worth $50 million per year.

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 stuck 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 273 worth $49 million in FY 2014 of these detained shipments ranging from cattle to Kyrgyzstan, apples to Taiwan, and potatoes to Mexico.

In addressing SPS barriers to trade, APHIS uses its strong scientific science 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 their counterparts in other countries and use scientific principles to make the case for American agricultural exports,

explaining 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 the existing and proposed free-trade agreements, 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 2014, APHIS informed 320 foreign officials about the U.S. regulatory process by hosting them during 62 visits, and completed 81 requests received for subject matter expertise, trainings, and other outreach-related activities. For example, in FY 2014, APHIS provided training to a group of Central American veterinarians on diagnosis of infectious animal diseases at our Foreign Animal Disease Diagnostic Laboratory. These same veterinarians are working to quickly detect animal diseases that may eventually lead to movement out of their countries and to the United States. They also make technical decisions on U.S. products entering their countries. APHIS experts also trained plant health regulators from Malaysia and the Philippines on the use of irradiation as a treatment to prevent the spread of insect pests, expanding treatment options for the safe trade of plant products.

The key to a successful trading environment is ensuring that our agricultural exports are able to 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 World Organisation for Animal Health and the International Plant Protection Convention 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 helps increase U.S. agricultural exports. For example, APHIS was able to gain status for U.S. animals and products as having negligible risk of bovine spongiform encephalopathy in FY 2014. This helped APHIS negotiate renewed or new trade in beef, animals and other products worth approximately $235 million. Adoption of new International Plant Protection Convention standards in FY 2014 for Karnal bunt, citrus canker, and citrus black spot aim to facilitate commercial trade based on the latest scientific methods for detecting and mitigating these pathogens.

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 help 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 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, compliance, 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.

Licensing Activities

The AWA requires all facilities that use animals regulated under the Act to maintain a license or registration with APHIS. APHIS conducts pre-licensing activities, including education and inspection of facilities, prior to issuing a license to ensure that applicants are able to comply with AWA regulations and standards. APHIS tailors the program specifically to the individual licensee's needs, including developing individualized materials and presentations that focus on specific aspects or issues at each facility. More recently, APHIS has increased the rigor of its pre-licensing program for dog dealers to ensure that noncompliance decreases over time. In FY 2014, APHIS inspectors licensed 892 new entities and conducted 1,012 pre-licensing inspections.

After issuing a license, inspectors perform unannounced inspections to verify continued compliance. In FY 2014, APHIS conducted 10,890 animal welfare inspections, placing an emphasis on the inspection of licensed facilities with documented non-compliance. The Agency determined that 63 percent of newly licensed facilities were in substantial compliance at their first unannounced inspection.

APHIS also continued to improve the quality and accuracy of inspections. In doing so, the program conducted 14 internal trainings for inspectors, as well as trainings and webinars educating stakeholders regarding new regulatory impacts, such as the implementation and enforcement of the retail pet store rule. APHIS continued to focus on conducting quality inspections and collecting thorough documentation and evidence during inspections. Overall, the program oversaw more than 7,276 licensees and registrants associated with 10,642 facilities.

In addition to the inspection process, the Agency designed an additional tool to help facility owners improve the health and welfare of their animals by promoting more cooperative relationships with attending veterinarians and facility operators. The Comprehensive Compliance Analysis and Planning Pilot effort enhances the regulated community's understanding of animal husbandry and ability to develop effective veterinary care programs. In FY 2014, 18 licensees participated in the program. Results from FY 2014 indicate that after completing the program, 91 percent of program participants were in substantial compliance at their third inspection. This is a 44 percent reduction in non-compliance from program participants prior to completing the program. This has positively improved the lives of more than 2,000 animals at these facilities. APHIS plans to continue this program in FY 2015.

Enforcement Activities

In FY 2014, APHIS determined that more than 96 percent of all licensed entities were in substantial compliance with the AWA. However, when APHIS inspectors discover violations during compliance inspections, they take additional actions that include an increased frequency of unannounced inspections to check if the facility made the necessary modifications to comply. Continued noncompliance may result in monetary penalties, and possible suspension or revocation of the facility's license.

With respect to alleged violations of the AWA, APHIS initiated 252 cases, issued 170 Official Warnings, issued 64 pre-litigation settlements resulting in the collection of $300,938 in stipulated penalties, and obtained administrative orders assessing $576,111 in civil penalties. With respect to the administrative orders, APHIS obtained two rulings from the U.S. Court of Appeals affirming administrative decisions under the AWA; one ruling involved a dealer who unlawfully sold 956 dogs resulting in the assessment of a $191,200 civil penalty. Another ruling involved an exhibitor that was found to have violated the AWA in connection with the handling and care of animals, resulting in the revocation of the AWA license and assessment of an $11,725 civil penalty. APHIS also obtained favorable administrative decisions and orders from the USDA Judicial Officer, including a decision involving an exhibitor found to be a repeat violator of the AWA. The result of this case was the issuance of an order to cease and desist from violating the AWA, assessment of a $39,375 civil penalty, and revocation of the license. Finally, APHIS negotiated several administrative consent decisions, including one research facility agreeing to pay a $127,100 penalty to resolve allegations that it failed to properly handle and provide veterinary care.

Outreach/Stakeholder Activities

APHIS' Center for Animal Welfare supports compliance efforts through non-regulatory methods such as education, training, and outreach to stakeholders to convey critical and current animal welfare information. To ensure it can reach the right stakeholders, the Center leverages its partnership with universities, industry, and animal interest groups, as well as technology to communicate information. Furthermore, the Center serves as a national resource for policy analysis, and science and technology in support of the AWA. Examples of these efforts include:

APHIS modified 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.

APHIS provided outreach and educational materials to State-level pet breeder associations in eight states (Illinois, Iowa, Kansas, Missouri, Ohio, Oklahoma, South Dakota, and Texas). APHIS partnered with the Ohio Professional Dog Breeders Association to disseminate information to Amish and Mennonite breeders. Together, we have located unlicensed facilities, and worked with such facilities to get them licensed and connected with industry leaders to provide effective kennel design and business management practices.

The Agency held a symposium focusing on the health and well-being of lions, tigers and bears regulated by the AWA. The goal of the symposium was to present the emerging science on the care for lions, tigers and bears to ensure the animals' welfare, as well as ensure the safety of the public. Topics included behavior, disaster planning, fiscal responsibility, nutrition, transportation, safety, and veterinary care. There were more than 200 attendees at the symposium from organizations such as the Association of Zoos and Aquariums, the Humane Society of the United States, and Global Federation of Animal Sanctuaries.

The Center launched the "Touch Every Puppy Everyday" campaign and developed associated education materials. The program is designed to encourage puppy breeders to socialize their animals. By doing so, breeders are making a positive investment in their business, and producing healthy, well-adjusted pets for American consumers. In FY 2014, APHIS distributed educational materials to more than 400 licensed breeders and brokers.

In collaboration with University of Kansas, APHIS developed an interactive educational training module for airline industry personnel. The "Pets on a Plane" module is designed to teach airline employees how to assess the adequacy of an animal's transport enclosure. APHIS hopes to distribute the module to the airline organizations in FY 2015.

Regulatory Changes

In 2014, the final rule that revises the definition of "retail pet store" in the AWA regulations became effective. The rule will protect the health of pets sold sight unseen over the Internet and via phone- and mail-based businesses. To help educate others on the updated definition of "retail pet store, APHIS conducted outreach to hobby breeders, professional and industry organizations and associations, industry leaders, and the public prior to implementing the rule. Since the rule became effective in November 2014, the Agency has received requests from 612 new entities interested in being licensed by USDA. Of those, the Agency received 150 complete applications for review. After careful consideration, APHIS issued 92 new retail pet store licenses in FY 2014. APHIS will continue to evaluate how best to implement the final rule. In FY 2015, the Agency will continue considering how to clarify our regulatory authority for interstate commerce, as well as working with all affected parties, including those small scale breeders, while ensuring that animals sold in retail are healthy and treated humanely.

In August 2014, APHIS amended the AWA to require that dogs imported into the United States for resale are healthy, vaccinated, and are over six months of age, with limited exceptions. When the final rule became effective in November 2014, importers, prior to import, are required to demonstrate proof of age, vaccination, and health of dogs imported for resale. This amendment to the AWA will further improve the welfare of imported dogs.

2. Horse Protection

APHIS enforces the Horse Protection Act (HPA) of 1970, a Federal law that prohibits the showing, sale, auction, exhibition, or transport of sored horses. Soring is the cruel and abusive practice of applyinga chemical or mechanical irritant to a any limb of a horse to cause a pain-induced high-stepping gait. This accentuated gait is used primarily in training Tennesee Walking Horses, racking horses and related breeds to provide a competitive edge during show events.

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 (HIO) and the HIO licensing the Designated Qualified Person (DQP) to conduct the inspection. USDA conducts oversight of the program through unannounced inspection at horse shows, sales, auctions or other exhibiting events to evaluate DQP performance.

Inspection Activities

HIOs with certified DQP programs participate in yearly DQP training seminars. Upon request by the HIO, USDA provides classroom instruction on the Horse Protection Act and regulations and their interpretation during the HIO DQP yearly training seminars. FY 2014, APHIS provided 12 training sessions, including refresher training to existing DQP inspectors and initial training for those interested in becoming DQP inspectors.

In FY 2014, DQPs conducted 54,120 inspections at 358 HPA events. To evaluate DQP performance and help ensure violations of soring are detected, APHIS attended 67 events and inspected approximately 10 percent of these horses. More than 53 percent of all the violations of soring detected in FY 2014 were identified when APHIS inspectors were present at the show. The Tennessee Walking Horse National Celebration is the breed's largest annual show. APHIS makes it a priority to attend the Celebration each year. At the 2014 Celebration Show, APHIS and the DQPs conducted 1,075 inspections on all horses prior to being shown. During the inspection process, APHIS cited 199 soring violations and DQPs cited 20 violations. The HPA requires that any horse found to be sored will be disqualified from being shown or exhibited. At the 2014 Celebration, APHIS inspections resulted in 137 disqualified horses and DQP inspections resulted in 29 disqualified horses.

The Agency also increased its use of objective and scientific diagnostics tools, including iris scanning, thermography, gas chromatography/mass spectrometry, and digital radiology. To ensure the program inspects the correct horse entered into a show, as well as to assist in evidence collection should the horse be found in violation, APHIS identified 1,107 horses with iris scanning technology. In FY 2014, Agency inspectors analyzed 1,100 horses utilizing thermography equipment as a pre-screening tool, allowing the Agency to physically inspect fewer horses, while maintaining a high level of detection of soring.

Additionally, APHIS analyzed 203 foreign substance samples to provide confirmation of the use of a mechanical irritant, of which 107 tested positive. APHIS added drug testing via blood collection and tested 241 horses, of which 20 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 with a history of soring. Finally, inspectors conducted 73 digital radiography images to further identify hoof abnormalities.

APHIS initiated a business process improvement project for its Horse Protection Program to seek more transparency and consistency in its inspection process and to remove vulnerabilities that could impede efforts to protect horses from soring. The study identified four actions to improve APHIS processes in implementing the HPA: 1) Develop standard operating procedures (SOPs) to improve consistency in show selection and inspection processes; 2) Design and launch an electronic information repository to provide access to SOPs and other documents to APHIS employees; 3) Develop a risk-based decision model to support the selection of shows to be inspected; and, 4) Develop performance elements for APHIS employees implementing the HPA. APHIS completed all the action items developed in response to the study by the end of FY 2014.

Enforcement Activities

APHIS pursued enforcement action against many alleged violators of the HPA. APHIS initiated 164 cases, issued 426 Official Warnings, and obtained 41 administrative orders assessing $44,500 in civil penalties and disqualifying 24 individuals from participating in activities regulated under 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 a civil penalty, and 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, resulting in the disqualification of approximately eighteen individuals from showing or entering any horse, or otherwise participating in any horse show, exhibition, or sale, and collectively assessment of more than $30,000 in civil penalties. In one of these administrative consent decisions, APHIS for the first time, prevented the gratuitous transfer of the respondents horses during the disqualification period. The result indicates enhanced compliance with the consent decision and the HPA.

Outreach/Stakeholder Activities

APHIS 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 Nashville, Tennessee, in December 2013; Western Veterinary Conference in Las Vegas, Nevada, in February 2014; American Veterinary Medical Association Annual Convention in Denver, Colorado, in July 2014; and Northeast Association of Equine Practitioners in Norfolk, VA in September 2014. The Horse Protection Program was also invited to present at the National Sound Horse Conference in Brentwood, Tennessee, in March 2014.

Regulatory Changes

In June 2012, APHIS published a final rule in the *Federal Register* to revise the current HPA regulations, adding a minimum penalty protocol for all APHIS-certified HIOs for consistent enforcement of the HPA. This final rule requires all HIOs, who have already been administering penalties as part of their role in enforcing the HPA, to make their penalties equal to or exceed minimum levels. The penalties in this final rule increase in severity for repeat offenders to provide an additional deterrent for people who have already shown a willingness to violate the HPA. In FY 2014, APHIS pursued the decertification of three HIOs through the Administrative Law Judge procedures due to their non-compliance with the regulations; one of these HIOs elected to dissolve. At the end of FY 2014, there are 13 USDA-certified HIOs.

In FY 2014, in response to a USDA Office of Inspector General report, APHIS drafted a proposed rule to revise its HPA regulations to restructure the licensing of designated qualified persons (DQPs) so that they are licensed by APHIS rather than by horse industry organizations. It would also make several other changes to the responsibilities of show management and the procedures for DQP inspection that are designed to increase the rigor of our HPA enforcement. The proposed rule is currently under review in USDA.

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 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 IT programs and administrative applications. APHIS maintains, enhances, and operates the information technology 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 2014 accomplishments listed below support these objectives:

- License Renewal - APHIS supported 8,290 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 and improving customer service response times. The Agency continued to maintain 99.97 percent availability for its key computing systems.
- Technology – APHIS completed the USDA requirement for all agencies.to transition from an APHIS computing structure to a USDA-wide computing structure. This transition improves access times to systems that provide online training, time and attendance, and other federally provided applications. Some of these systems include AgLearn, WebTA, USDA Connect and My EPP.

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 visitor 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. During FY 2014, the program conducted 12 trainings to more than 1,200 Agency employees including self-defense seminars, safety briefings and refreshers, operations in high threat foreign environments, travel briefings, and training on personally identifiable information. To enhance preparedness and response in the event of an incident, APHIS delivered Active Shooter training to approximately three hundred Agency employees. This scenario-based training provided a dynamic, interactive drill for APHIS employees, as well as law enforcement officers from seven Federal, State, and local agencies. POS ensures that all Agency personnel are annually trained 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 2014, APHIS investigated 59 workplace violence allegations and 70 external threats to APHIS employees. The program also upgraded 84 facilities to ensure that the buildings are Homeland Security Presidential Directive 12 compliant. This directive created a government-wide standard for secure and reliable forms of identification to access Federally-controlled facilities and networks.

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 who are enforcing regulations in challenging environments. At horse show events, Agency inspectors have faced incidents in which others threatened their personal safety. Therefore, the program provided security for Agency inspectors at 59 horse shows in 8 States where APHIS conducted 4,768 inspections related to the HPA. Similarly, to safeguard APHIS employees entering onto private property, POS provided security during 27 inspections of regulated AWA entities.

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 will continue to distribute these protection devices to employees conducting Agency activities where potential safety concerns exist.

APHIS also works with other UDSA Agencies and with other partners, such as the Department of Justice, Department of Homeland Security, the 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 Agency is required by the Security Embassy Construction Counterterrorism Act's Capital Security Cost Sharing Program to help fund the construction of New Embassy Compounds based on the number of authorized positions. In FY 2014, APHIS had 251 full-time employees based in countries around the world. This program provides new, 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.

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 $3.1 billion in 2013. HLB now infects trees in all of Florida's citrus groves, greatly reducing production and acreage. Additionally, the disease is present in much of Texas's 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 new 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 made up of representatives from 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 FY 2014 Omnibus Appropriations Act provided a one-time, 2-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.

The HLB MAC established two parallel processes for using the funds: a direct funding process and a stakeholder suggestion process. Through the direct funding process, the MAC Group funded several types of projects in FY 2014 focused on some of the most promising tools to combat HLB or ACP. APHIS provided $4.26 million to a variety of cooperators in Florida, California, and Texas for these projects. These include biological control of the ACP, three field trials of promising antimicrobial treatments to treat HLB-infected trees, and demonstration groves (where best practices are used and honed to keep HLB-infected groves productive). The first projects to get underway, increasing production and release of biological control agents, show promise particularly for managing ACP in organic citrus groves and urban areas. With HLB MAC funding, APHIS plans to increase the number of biological control agents reared and released from 3.5 million per year to more than 10 million per year within a 2-

year period. Starting in summer 2014, project managers already increased production to 4 million and released biological control agents in Florida, Texas, Arizona, and California.

On July 1, 2014, APHIS announced the launch of the Stakeholder Project Suggestion System for stakeholders to submit HLB-related suggestions for potential funding. Industry, academia, and State and Federal researchers submitted more than 50 suggestions before the suggestion period closed on August 22, 2014. An outside 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 has begun to announce funding decisions for the stakeholder-suggested projects. The first was announced in October 2014 and supports the training and use of detector dogs to find asymptomic HLB-infected trees (those that are infected but not yet showing visible signs of the disease) in citrus groves. In FY 2015, the MAC will also continue to fund the most successful of the direct-funded projects begun in FY 2014. APHIS will track the percent of tools and techniques developed through the HLB MAC that are adopted by growers or commercialized.

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

1. Asian Longhorned Beetle

In FY 2014, APHIS spent $921,359 in CCC funds to continue eradication activities targeting an Asian longhorned beetle infestation in Clermont County, Ohio. Ohio forests are a critical component of the State's natural resources and span nearly 8 million acres, or 30 percent of the State. More than 48 percent of Clermont County is covered by forest. APHIS provided funds to the Ohio Department of Agriculture (ODA) through a cooperative agreement to continue delimiting the infestation and supporting contracts for tree removal and treatment of exposed trees in certain areas. APHIS projects to complete delimitation of the infested area by FY 2016. Completing delimiting surveys is essential to ensuring that all infested trees are found and removed and that the treatment and regulated areas are accurately defined. As of November 2014, approximately 54 square miles contain infested trees and APHIS is regulating approximately 61 square miles. In addition, the program has inspected 1.3 million trees and removed 13,000 infested trees. In FY 2015, the ODA will continue delimitation activities. The program will continue removing infested trees and replanting trees, as well as applying preventative treatments to healthy trees in Stonelick and Batavia Townships.

2. European Grapevine Moth

The European Grapevine Moth (EGVM) is a significant pest of grapes. In FY 2014, APHIS and the California Department of Food and Agriculture (CDFA), along with industry partners, continued the successful effort to eradicate EGVM. APHIS provided $2.08 million in CCC funds to CDFA through a cooperative agreement to continue trapping and regulatory inspections for this pest. As a result of no new EGVM detections during 2 years of surveillance, APHIS removed 153,680 acres from the quarantined area (which mainly includes portions of Napa County and extends slightly into Sonoma County). Since initiating this program in FY 2010, APHIS has removed more than 80 percent of the quarantined area from regulation based on successful eradication efforts. In FY 2015, APHIS and CDFA will continue intensive survey activities in Napa and other areas to ensure that EGVM is not present. If there are no further detections, APHIS plans to remove all EGVM quarantines by the end of FY 2016.

3. 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 (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 CCC 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 1,800 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 National Clean Plant Network (NCPN), which provides reliable sources of pathogen-free planting stock of high-value specialty crops, APHIS and cooperators have also provided funding and other support to 20 clean plant centers and associated programs in 16 States representing 5 specialty crops including fruit trees, grapes, citrus, berries, and hops.

APHIS and cooperators have identified six major strategies to implement Plant Pest and Disease Management efforts (formerly Section 10201): 1) enhancing plant pest/disease survey and analysis; 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 382 projects in the six goal areas in FY 2014. These 382 projects included 156 projects with State departments of agriculture and 2 territories, 135 with partners in academia, seven with Native American Tribes, and 10 with non-profits and private entities. The remaining funding supported projects in either APHIS or other Federal agencies that have a multi-State or national impact. These included training and deployment of canine teams to cooperators, developing survey methodologies, procuring traps and lures that APHIS distributed nationwide to cooperators in many pest programs, outreach efforts to inform the public and make them aware of invasive plant pests, and development of an improved data management system for use by States and territories, other cooperators, and APHIS, as examples.

Under the enhancing pest/disease survey and analysis goal, APHIS funded 123 commodity- and taxon-based surveys in 43 States plus Guam and Puerto Rico. The program targeted 69 high-risk pests of national concern in specialty-crop surveys in grape, nuts, orchard crops, palm, solanaceous crops, and stone fruits, in addition to Asian defoliators, honey bee pests, terrestrial mollusk, false codling moth, khapra beetle and cyst nematode surveys, among others. All survey results were negative for these high-risk pests, which demonstrates the United States is free of these pests and allows international trade to continue. The program also continued cooperative projects to analyze relative risk of invasive species at the county level and patterns of introduction of commodities into the country that put specialty crops at risk to exotic invasive pests and developed risk and economic assessment models to help determine survey priorities, such as how gypsy moth populations are behaving and spreading along the fringe of the infested areas. The program spent approximately $17.8 related to 143 projects in this goal area in FY 2014.

The second goal involves efforts to target domestic inspection activities at vulnerable points that result from the movement of commodities potentially carrying pests of regulatory significance. Under this goal, APHIS provided funds to train and place canine teams for domestic surveys in California, Florida and Guam. These teams are used for the enhancement of the States' efforts to mitigate pests that escape undetected through ports of entry and, in some cases, as a consequence of unauthorized movement of regulated and illegal goods. In FY 2014, the program supported 13 canine teams in California, 6 teams in Florida and initial training for two teams in Guam to enhance detection efforts at parcel facilities (such as FedEx and UPS). From July 1, 2013 to June 30, 2014, the California Dog Teams alerted on 33,162 total marked and unmarked parcels containing agricultural products. Of the total alerts, 2,107 were unmarked parcels containing agricultural commodities. A total of 319 pests were intercepted as a result of the California Dog Teams work. The detector dog teams in Florida also assisted in surveys for the Giant African snail in support of eradication efforts in the Miami-Dade county area in 2014. Other projects in 2014 provided funds to monitor critical entry points in Texas and Florida as well as assessment of Remote Sensor Technology and Portable Gas Chromatography as an agricultural screening tool and the potential use of imaging techniques for non-destructive detection of plant pests in plant matter. The program spent approximately $6 million on 17 projects in this goal area in FY 2014.

Under the pest identification tools and technology goal, 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 2014, the Survey Supply Program procured and is in the process of distributing nearly 500,000 traps and lures, valued at $411,655, that target exotic pests to all 50 States and a few territories. Other projects include the development of improved traps and lures for exotic Lepidoptera (moths) and wood boring beetles, continued enhancement of taxonomic and molecular diagnostic capacity, including diagnostic training in high-risk states, and a variety of projects aimed at providing more precise and faster detection and identification tools for citrus pests and diseases and other high-risk pests. APHIS spent approximately nearly $4.4 million on 65 projects in support of this goal in FY 2014.

Under the nursery safeguarding goal, APHIS focused on developing science-based best management practices and risk mitigation practices to exclude, contain, and control regulated pests from the nursery production chain, and developed and harmonized audit-based nursery certification programs. Primary areas of focus include ongoing work on control and management practices for *P. ramorum* at the National Ornamentals Research Site at the Dominican University of California. The program also supported the implementation of a pilot domestic nursery stock certification program that includes representatives from Industry (AmericanHort and the Society of American Florists), the National Plant Board's Systems Approach to Nursery Certification group, and USDA-APHIS, with the objectives of obtaining participant feedback on proposed systems approaches for pest mitigation and encouraging education/outreach initiatives for the use of such systems. Other projects included reinstating a Grape Certification Program in New York to facilitate the movement of virus certified material nationally and internationally, as well as a collaborative study to improve control of boxwood blight. The program spent approximately $2.4 million on 30 projects in this goal area in FY 2014.

Under the goal of outreach and education, APHIS built upon the accomplishments of the cooperative agreements in previous years by supporting continued outreach for forest pests in more than 20 states. Target audiences include youth, campers, citizen scientists, and tribal nations. In addition, the program maintained continued support of prevention, mitigation and detection activities covering a broad scope of pests with the Sentinel Plant Network within the affiliated network of more than 500 members of the American Public Gardens Association and APHIS' own Hungry Pests and Save our Citrus Campaigns. APHIS also funded a socio economic study on the use of communication and outreach to minimize socio-political impacts in order to maximize cost-effective control of emerging pests. In addition to these mentioned projects, the entire Goal contains projects in 32 states. Of these, at least five are targeted to a national or regional audience. The outreach and education portion of the spending plan continues to encourage collaboration among partners and across state boundaries. APHIS spent nearly $4 million on 54 projects in this goal area in FY 2014.

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, an increases emergency preparedness through the development of New Pest Response Guidelines and Incident Command System training. Some of these efforts provided support for European grapevine moth eradication in California, Mexican fruit fly and boll weevil eradication in Texas, giant African snail eradication in Florida and coconut rhinoceros beetle eradication in Hawaii. The Agency also supported projects to develop strategies for mitigation and/or control of high-risk/exotic pests such as brown marmorated stink bug, cactus moth, whiteflies, Asian long-horned beetle, tomato leafminer and potato cyst nematode. APHIS spent $17.6 million on 73 projects in this goal area in FY 2014.

In FY 2014, APHIS used approximately $5 million in Section 10007 funds to support NCPN. APHIS provided funds to qualified clean plant centers through a cooperative application process. This process allowed stakeholders to offer input into the program through pre-proposals, which are designed to help clean plant centers prioritize and harmonize their resourcing requests. As a result, APHIS entered into 18 cooperative agreements with clean plant centers. These include the University of Arkansas, Auburn University (Alabama), University of Arizona, University of California at Davis (for multiple crop programs), University of California at Riverside, Florida A&M University, Florida A&M University, Florida Department of Agriculture and Consumer Services (both diagnostics and budwood programs), University of Hawaii, Louisiana State University, Missouri State University, Cornell University (New York), North Carolina State University (including support for sweet potato, a new crop proposing entry into the network), Clemson University (South Carolina), Texas A&M University (including support for roses, a new crop

proposing entry into the network), and Washington State University. 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; and 4) engage with nurseries and growers in education/outreach programs to communicate the economic value to industry of using clean nursery stock. 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.

Over the past 5 years, the clean plant centers have:

- Established nearly 2,000 clean fruit tree accessions in foundations that have delivered more than 350,000 cuttings, scions, and plantlets as well as more than 1.2 million buds to nurseries and growers.
- Distributed more than 625,000 clean grape-wood cuttings, buds, plants, or special seed to industry.
- Provided mother plants that have produced nearly 30 million clean berry plants annually.
- Delivered 'starter material' that has resulted in more than 230 million clean citrus trees over the past 5 years.
- Accommodated 30 percent of the world's need for clean hops.

In FY 2014, the program expanded the network to establish 2 new crops -- sweet potato and roses -- as supported members of NCPN. NCPN also is working with stakeholders to develop plans that focus of long-term center sustainability and increased production capacity and product quality.

4. Swine Enteric Coronaviruses

In response to the identification of swine enteric coronavirus diseases (SECD) in 31 States in FY 2013 and 2014 (with porcine epidemic diarrhea being the most notable), APHIS spent approximately $9.8 million in CCC funds 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. Because the U.S. swine population had no immunity against these diseases, the entire population was at risk. The viruses spread easily and resulting infections can cause significant sickness in swine, affecting their growth, production potential, and health, and causes high mortality in piglets. Although conditionally-licensed SECD vaccines became available late FY 2014, their effectiveness in preventing and or reducing the impact of disease and disease spread continues to be investigated.

In June 2014, APHIS published a Federal Order that included required disease reporting and the development of herd monitoring and management plans by producers and veterinarians. These actions were designed to better ensure that the Federal government, States, and industry have sufficient information to characterize and understand the scope of SECD and inform control options and decrease the spread of the diseases. APHIS also worked with producers and veterinarians to implement enhanced biosecurity measures on farms. These actions are intended to address the SECD outbreaks in a manner that supports business continuity for commercial pork producers, maintains a safe supply of pork for consumers, and is credible to State and Federal animal health officials. The CCC funds also funded Agricultural Research Service research to enhance understanding of the virus, examine disease transmission methods to inform biosecurity efforts, and protect swine health over the long term.

Also in FY 2014, APHIS participated in a task force with State and industry stakeholders to: investigate SECDs and their origins on premises; evaluate options for an active surveillance plan, including testing protocols; sequence viruses; identify additional cases and understand transmission risk factors; develop strategies for control and elimination; and inform the public.

The establishment of mandatory reporting has helped APHIS establish more robust SECD reporting mechanisms and the processes that the Agency established for receiving test data from the National Animal Health Laboratory network of labs have increased the efficiency of data management enhancing APHIS' ability to respond to emerging diseases. Additionally, the establishment of the financial processes for reimbursing producers for activities they undertake to combat disease spread will pay dividends for this and future emerging disease responses.

In part due to APHIS' efforts, these diseases have caused no disruption of international trade, or hindered the pork industry's efforts to market their products. In FY 2015, APHIS will continue to manage SECD infections and minimize the impact of these diseases on swine producers and the swine industry.

SUMMARY OF KEY FY 2014 CCC FUNDED EMERGENCY ACTIVITIES

	Emergency/Activity	Total Available in FY 2014 a/	Total Obligations in FY 2014
1	Asian Longhorned Beetle	$986,931	$921,359
2	European Grapevine Moth	2,130,015	2,080,392
3	Farm Bill	59,555,592	57,286,461
4	Swine Enteric Coronaviruses	26,170,374	9,811,187
5	Total	$88,842,912	$70,099,399

a/ Total Available includes account recoveries, where applicable.

The estimates include appropriation 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, 2016	$3,175,000
2015 Enacted	3,175,000
Change in Appropriation	-

Summary of Increases and Decreases
(Dollars in thousands)

Program	2013 Actual	2014 Change	2015 Change	2016 Change	2016 Estimate
Discretionary Appropriations:					
Basic buildings and facilities repair, alterations, and preventive maintenance	$2,928	+$247	-	-	$3,175
Total Appropriation or Change	2,928	+247	-	-	3,175

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

Program	2013 Actual		2014 Actual		2015 Enacted		2016 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Appropriations:								
Buildings and Facilities	$3,175	-	$3,175	-	$3,175	-	$3,175	-
Rescission P.L. 113-6	-86	-	-	-	-	-	-	-
Sequester P.L. 113-6	-161	-	-	-	-	-	-	-
Total Adjusted Appropriations	2,928	-	3,175	-	3,175	-	3,175	-
Balance available, SOY	1,046	-	2,852	-	1,484	-	1,159	-
Recoveries	12	-	119	-	-	-	-	-
Total Available	3,986	-	6,146	-	4,659	-	4,334	-
Balance available, EOY	-2,852	-	-1,484	-	-1,159	-	-1,334	-
Total Obligations	1,135	-	4,662	-	3,500	-	3,000	-

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

Program	2013 Actual		2014 Actual		2015 Enacted		2016 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Obligations:								
Buildings and Facilities	$1,135	-	$4,662	-	$3,500	-	$3,000	-
Balance available, EOY	2,852	-	1,484	-	1,159	-	1,334	-
Total Available	3,986	-	6,146	-	4,659	-	4,334	-
Recoveries	-12	-	-119	-	-	-	-	
Balance available, SOY	-1,046	-	-2,852	-	-1,484	-	-1,159	-
Rescission P.L. 112-10	86	-	-	-	-	-	-	-
Sequester P.L. 113-6	161	-	-	-	-	-	-	-
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 2015).

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 Agency's goal for its facilities is the implementation of scheduled 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.

In recent years, the program has used available funds more efficiently through comprehensive construction projects. FY 2016 priorities include continuing to address an underutilized building at the National Centers for Animal Health in Ames, Iowa. This includes the deconstruction of Administration Building (i.e., Building 400). APHIS separated the building's wiring from surrounding buildings that were still in use and is considering the best use for the facility. In addition, APHIS has plans for structural and safety upgrades to the National Wildlife Research Center site in Hilo, Hawaii. The Agency also will continue to use FY 2016 funds to conduct facility condition assessments at eight APHIS facilities.

In FY 2014, APHIS awarded 11 design/construction & FCA projects at a cost of approximately $3,137,773. Approximately half of these repairs were necessary (i.e., safety and health, ADA, etc.) renovations and the remainder were repairs. As of December 10, 2014, there are 50 active B&F projects for APHIS facilities.

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.

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.

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	2013 Actual		2014 Actual		2015 Enacted		2016 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
United States:								
California	-	-	-	-	$71	-	$71	-
Colorado	$158	-	$25	-	-	-	-	-
Florida	351	-	2,570	-	540	-	440	-
Hawaii	23	-	-	-	-	-	-	-
Iowa	135	-	426	-	401	-	401	-
Maryland	-	-	86	-	71	-	71	-
Massachusetts	170	-	134	-	-	-	-	-
Michigan	30	-	-	-	-	-	-	-
Mississippi	-	-	-	-	71	-	71	-
New York	47	-	125	-	-	-	-	-
Texas	150	-	463	-	981	-	781	-
Wyoming	-	-	47	-	-	-	-	-
Puerto Rico	-	-	-	-	46	-	46	-
Mexico	71	-	270	-	695	-	595	-
Central America:								
Panama	-	-	347	-	453	-	353	-
Guatemala	-	-	169	-	171	-	171	-
Total direct obligations	1,135	-	4,662	-	3,500	-	3,000	-

Buildings and Facilities

Classification by Objects
(Dollars in thousands)

		2013 Actual	2014 Actual	2015 Enacted	2016 Estimate
Other Objects:					
25	Other Services……	$1,135	$4,662	$3,500	$3,000
	Total, other objects……	1,135	4,662	3,500	3,000
	Total direct obligations……	1,135	4,662	3,500	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 enable 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. 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. Each asset is assigned an FCI. 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 was 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.

This program works to increase efficiency through more comprehensive construction projects. Approximately 99 percent of B&F funding supports indefinite delivery, indefinite quantity contracts, 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 speed service delivery. Remaining B&F funds support information technology projects.

The following provides a status of ongoing major construction projects as of October 2014.

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 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 2014, there are 54 active projects. In FY 2014, APHIS awarded 30 design/construction projects at a cost of approximately $4 million and completed 14 construction projects repairs. Approximately half of these repairs were major renovations and half were minor repairs.

Facilities Condition Assessment

In 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 2014, 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.

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 their activities. Specifically, significant renovations are needed to address the identified life and safety deficiencies (e.g., asbestos-containing materials, laboratory exhaust systems, fire alarm and suppression), bring the facility into compliance with the Americans with Disability Act, address other urgent facility requirements included in the Facility Condition Reassessment and Green Building Assessment Final Report, 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 with respect to this modernization project. APHIS awarded a Design-Build Construction contract in FY 2014.

Summary of Budget and Performance
Statement of Agency 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, dealing with 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 sixteen 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 pets 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 more than $193 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 more nearly 10 percent between FY 2009 and FY 2013. APHIS is seeking additional resources in FY 2016 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 resulted in 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 2016, 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. 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. In FY 2014, APHIS and its partners in Texas detected cattle fever ticks outside the quarantine zone and are working to control the outbreak. The intensive response effort involves inspecting and treating all premises and livestock within the 222,000 acre temporarily quarantined area as well as measures to address wildlife such as deer that can also carry the ticks. APHIS expects to eradicate this outbreak by FY 2016.

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	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Target	2016 Target
Value of specialty crops directly protected by APHIS' Specialty Crop Pests program	N/A	N/A	$11.48 billion	$11.48 billion	$9.02 billion	$9.02 billion	$9.02 billion
Export losses prevented by the APHIS Screwworm program on an annual basis	N/A	N/A	$53 million	$53 million	$53 million	$53 million	$53 million
Number of sterile Medfly pupae produced weekly	1 billion	1 billion	0.8 billion	1 billion	1 billion	1 billion	1 billion

Performance Measure	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Target	2016 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 30,655 inspections of individual premises for cattle fever ticks, including 7,483 river trail patrols in FY 2014.
- Expanded the Medfly-free zone in Mexico and Guatemala from approximately 145,307 square kilometers to more than 148,341 square kilometers in FY 2014.
- Inspected more than 23,000 imported plant shipments containing 1.45 billion plant units (cuttings, whole plants, or other propagative materials) and approximately 2.37 million kilograms of seeds at APHIS Plant Inspection Stations in FY 2014.

Selected Accomplishments Expected at the FY 2016 Proposed Resource Level:

- Continue to work with the Governments of Mexico and Guatemala to maintain a barrier against the northward spread of Medfly.
- 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 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 7,200 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 increase the high rate of AWA compliance in FY 2016. New AWA 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. APHIS began tracking the compliance of newly licensed facilities during FY 2014 and found that 63 percent of newly licensed facilities were in substantial compliance at their first unannounced inspection. APHIS' goal is to increase this to 75 percent in FY 2016.

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 2014, APHIS began a new 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 Pilot helps regulated entities improve their relationships with attending veterinarians. Program participants are enhancing their understanding of animal husbandry, and developing more effective veterinary care programs. The result has been a significant increase in compliance with the AWA. APHIS inspectors found a 44 percent reduction in the identification of noncompliances during inspections with those participants. APHIS will continue to assess the impact this pilot program has on participants in FYs 2015 and 2016

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 2014, APHIS and DQP inspectors examined more than 54,120 horses at 366 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	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Target	2016 Target
Percent of licensees inspected and registrants in substantial compliance of the Animal Welfare Act	95%	98%	95%	96%	96%	97%	97%

Performance Measure	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Target	2016 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	N/A	63%	70%	75%

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- Exceeded the Agency projected average compliance rate for regulated entities under the AWA.
- Amended regulations to require dogs be healthy, over six months of age, and vaccinated prior to being imported into the United States.
- Licensed 92 new licenses for entities conducting business as defined in the published retail pet store rule.

Selected Accomplishments Expected at the FY 2016 Proposed Resource Level:

- Improve compliance of regulated entities under the AWA by strengthening facility owners' relationships with attending veterinarians.
- Continue the 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 of the ALB infestation in and around Boston, Massachusetts. 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, including the most recently detected outbreak on Long Island. 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. The program continues to study how beetle biology and the time elapsed between surveys impact survey effectiveness, and evaluate an extended timeframe for the application of preventive treatments (potentially saving funds by treating less frequently to achieve the same results). In FY 2016, APHIS plans to continue to reduce the damage caused by this devastating pest.

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 664 million acres of rangeland worth a total of nearly $8.8 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 2014, APHIS applied treatments to 7,201 acres of rangeland, which protected rangeland forage and wildlife habitat on approximately 17,448 acres. APHIS will continue conducting surveys and treatments to manage these pests in FY 2016.

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 2014, APHIS conducted beaver damage management activities in 41 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 2016, APHIS will continue to reduce damage caused by wildlife.

Performance Measure	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Target	2016 Target
Acreage protected by the Tree & Wood Pest Programs (Area outside of quarantine)	N/A	N/A	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	N/A	$1.19 trillion	$1.19 trillion	$1.19 trillion	$1.19 trillion	$1.19 trillion
Rangeland acreage protected by APHIS' grasshopper program	N/A	N/A	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	N/A	$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 1,100 beaver damage management projects in North Carolina, reducing damage by an estimated $10.7 million.

Selected Accomplishments Expected at the FY 2016 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 $246 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 2014, APHIS has made a total of 109 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 109 in FY 2014 to 119 in FY 2016.

APHIS ensures regulatory compliance on the part of the biotechnology community through inspections, educational and outreach efforts, and investigations and audits. In FY 2014, APHIS authorized 2,132 new permits and notifications at 11,265 locations in the United States. The program conducted more than 700 site inspections (with 99 percent of those inspected found to be in compliance with APHIS' regulations). APHIS' goal for FY 2016 is for at least 99 percent of sites 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. For example, APHIS issued a conditional license for a vaccine for porcine epidemic diarrhea virus (PEDV), which spread to more than 30 States and resulted in the deaths of more than 7 million piglets in FY 2014. This vaccine was manufactured using virus-like particles—a new biotechnology that has been gaining wider acceptance in the scientific community and allows for the rapid development and manufacturing of vaccines for newly emerging disease threats. APHIS issued a conditional license for the product because of producers' urgent need to address PEDV while the Agency continues to evaluate the vaccine's efficacy.

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 review 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. APHIS also initiated a business process improvement effort for its biotechnology reviews in 2012 and has worked since to implement changes to its petition review process, with a goal to reduce the time required for review from an average of 3 years to about 13 to 16 months. The changes included establishing specific timelines for each step, using new management and tracking tools, and getting the public involved earlier to identify risks and controversial issues. By taking these steps, APHIS delivers a more predicable petition process without compromising the quality of the

analysis to support our decision making. In FY 2014, APHIS reduced the time it takes to prepare plant pest pest risk assessments from an average of 143 days to 87 days under the new process. APHIS completed seven petitions in total in FY 2014, surpassing its goal of five determinations of regulatory status. APHIS expects to routinely meet the targeted timeframe for its petition reviews in FY 2016.

Performance Measure	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Target	2016 Target
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	81	87	93	102	109	114	119
Percent of field release sites in compliance with biotechnology regulations designed to protect agriculture from plant pests	95%	95%	98%	99%	99%	99%	99%
Average number of days to issue a product license for veterinary biologics	892 days	425 days	344 days	341 days	347 days	340 days	340 days

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- In FY 2014, APHIS made 7 determinations of regulatory status for biotechnology petitions, bringing the total of deregulations to 109.
- In FY 2014, APHIS authorized 2,132 new permits and notifications at 11,265 locations in the United States, and conducted 700 site inspections (with 99 percent of those inspected found to be in compliance with APHIS' regulations).
- APHIS issued a conditional license to a vaccine for porcine epidemic diarrhea virus.

Selected Accomplishments Expected at the FY 2016 Proposed Resource Level:

- APHIS expects the number of determinations of non-regulated status to increase from 109 in FY 2014 to 119 in FY 2016.
- 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 2014, 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 2014, our overseas employees secured the release of 273 detained shipments of U.S. agricultural products worth more than $49 million. 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.

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 2014, APHIS responded to 94 requests for technical assistance and acted upon 81 requests. For example, APHIS provided training to Central American veterinarians on foreign animal disease diagnostic tests at the Foreign Animal Disease Diagnostic Laboratory. APHIS also trained plant health regulatory officials from Malaysia and the Philippines on the use of irradiation as a treatment to prevent the spread of insect pests, expanding treatment options for the safe trade of plant products.

One of APHIS' specific objectives to support U.S. exports is to eliminate all remaining trade barriers related to bovine spongiform encephalopathy (BSE). In March 2014, APHIS implemented a rule that closely aligns its import regulations with the World Organisation for Animal Health's (OIE) standards. APHIS made progress in eliminating restrictions on U.S. exports related to BSE in FY 2014, eliminating restrictions on beef or beef products to 19 countries, including China, Mexico, and Brazil, among others APHIS will continue these efforts in FY 2016 and work towards eliminating all remaining BSE barriers to export markets through a deliberate process of engagement with trading partners with BSE restrictions. APHIS will coordinate with United States Trade Representative, USDA's Foreign Agricultural Service, and USDA's Food Safety and Inspection Service as well as continue to engage these countries through animal health discussions.

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 2014, APHIS (and its State and county counterparts) issued more than 655,000 phytosanitary certificates and more than 200,000 animal and animal product export certificates. In FY 2015 and 2016, 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	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Target	2016 Target
Value of expanded and retained markets, new market access, and trade facilitated	$2.4 billion	$1.68 billion	$2.56 billion	$2.9 billion	$2.5 billion	$2.9 billion	$2.9 billion
Number of shipments released (in foreign ports of entry) as a result of APHIS intervention	294	300	324	279	273	280	300

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- Negotiated and resolved 170 SPS trade-related issues involving U.S. agricultural exports, with an estimated market value of $2.5 billion.
- Secured the release of 273 shipments of U.S. cargo held up at foreign ports-of-entry, which prevented the rejection of shipments worth more than $49 million.
- Eliminated BSE-related restrictions on U.S. exports of beef or other commodities to 19 countries.

Selected Accomplishments Expected at the FY 2016 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 Federal partners to develop strategies to engage remaining trading partners that continue to impose BSE-related 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 more than $193 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 conducts more than 500,000 diagnostic tests per year on approximately 250,000 animal samples collected. 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, 2 U.S. territories, Tribal and local governments, industry partners, and other stakeholders. In FY 2014, the Agency targeted 100 high-risk pests of national concern for survey in citrus, corn, grape, oak, pine, small grains, soybean, stone fruit, and nursery crop commodities, as well as exotic wood boring bark beetles and cyst nematodes.

In FY 2014, APHIS responded to the identification of swine enteric coronavirus diseases (SECD) in 31 States. Because the U.S. swine population had no immunity against the diseases, most notably porcine epidemic diarrhea, the entire population was at risk. APHIS implemented a Federal Order in June 2014 requiring disease reporting and the development of herd monitoring and management plans by producers and veterinarians. APHIS also worked with producers and veterinarians to implement enhanced biosecurity measures on farms. These actions are intended to address the SECD outbreaks and support business continuity for commercial pork producers, protecting this $20 billion industry. APHIS is enhancing swine surveillance efforts to help ensure that outbreaks of novel swine diseases will be identified quickly in the future. APHIS will continue these efforts in FY 2016.

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. One of the first projects to get underway in FY 2014 involved increasing production and release of biological control agents to control the Asian citrus psyllid (which is a vector for HLB). APHIS plans to increase the number of biological control agents produced from 3.5 million per year to 10 million per year by FY 2016. Other tools in development include the use of antimicrobials to treat HLB infected trees, development of HLB-tolerant rootstock, use of thermal therapy (heat treatment) to treat HLB infected trees, 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 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 2014, 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 110 million acres, collecting 2,800 feral swine disease samples, establishing three regional helicopter teams, and engaging Mexico and Canada in establishing cooperative efforts. The Agency will continue these efforts in FY 2016.

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 is comprised of 60 State and university laboratories located in 40 States, as well as two NVSL facilities and two other Federal health diagnostic laboratories not associated with animal health disease diagnostic work. 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.

Performance Measure	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Target	2016 Target
Percent of States and Tribes receiving cooperative agreement funds that have a current strategic plan for animal disease traceability	N/A	N/A	N/A	75%	89%	95%	95%
Percent of high-risk plant pests (as identified on the Priority Pest List) for which early detection surveys were conducted in the United States	89%	86%	79%	86%	88%	82%	82%
Value of livestock and poultry protected by APHIS' animal health programs	N/A	N/A	$154 billion	$154 billion	$182 billion	$182 billion	$182 billion
Production value of cotton directly protected by APHIS' cotton pest programs	N/A	N/A	$1.7 billion	$1.7 billion	$1.7 billion	$1.7 billion	$1.7 billion

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- Implemented a Federal Order requiring disease reporting and development of herd monitoring plans related swine enteric coronavirus diseases.
- Established the HLB MAC and initiated projects to develop or enhance three types of tools to combat HLB or the ACP in citrus groves.
- Implemented a National Feral Swine Damage Management program in 39 States, through a cooperative approach to slow, then stop the spread of feral swine that damage agriculture, natural resources, and property, and that threaten human health and safety.

Selected Accomplishments Expected at the FY 2016 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
(On basis of appropriation)
(Dollars in thousands)

Program / Program Items	2013 Actual	2014 Actual	2015 Enacted	Increase or Decrease	2016 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	$25,000	$28,010	$28,010	+$61	$28,071
Staff Years	213	218	218	-	218
Horse Protection	642	697	697	+9	706
Staff Years	5	6	6	-	6
Wildlife Damage Management	67,836	87,428	90,027	-9,444	80,583
Staff Years	526	620	620	-30	590
Wildlife Services Methods Development	17,536	18,856	18,856	+52	18,908
Staff Years	163	163	163	-	163
Total Cost, Strategic Goal	111,014	134,991	137,590	-9,322	128,268
Staff Years, Strategic Goal	907	1,007	1,007	-30	977
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	52,273	58,000	54,000	-8,481	45,519
Staff Years	319	319	319	-4	315
Field Crop & Rangeland Ecosystems Pests (Grasshopper)	4,225	4,633	4,633	-	4,633
Staff Years	43	39	39	-	39
Total Cost, Strategic Goal	56,498	62,633	58,633	-8,481	50,152
Staff Years, Strategic Goal	362	358	358	-4	354
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	12,325	14,099	14,099	+5,526	19,625
Staff Years	92	92	92	+4	96
Biotechnology Regulatory Services	16,738	18,135	18,875	+26	18,901
Staff Years	90	92	92	-	92
Overseas Technical & Trade Operations	18,472	20,114	22,114	+24	22,138
Staff Years	73	76	86	-	86
Total Cost, Strategic Goal	47,534	52,348	55,088	+5,576	60,664
Staff Years, Strategic Goal	255	260	270	+4	274

Program / Program Items	2013 Actual	2014 Actual	2015 Enacted	Increase or Decrease	2016 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)……	26,304	26,900	26,900	+2,430	29,330
Staff Years……	360	360	360	+19	379
Animal and Plant Health Regulatory Enforcement……	15,021	16,224	16,224	+40	16,264
Staff Years……	138	142	142	-	142
Animal Health Technical Services…….....……	34,018	35,339	35,339	+18	35,357
Staff Years……	64	64	64	-	64
APHIS Info. Technology Infrastructure…….....……	4,001	4,251	4,251	-	4,251
Staff Years……	-	-	-	-	-
Aquatic Animal Health…….....…….....……	2,087	2,253	2,253	+6	2,259
Staff Years……	22	22	22	-	22
Avian Health…….....…….....…….....	47,993	52,340	52,340	+55	52,395
Staff Years……	196	196	196	-	196
Buildings & Facilities…….....…….....……	2,928	3,175	3,175	-	3,175
Staff Years……	-	-	-	-	-
Cattle Health…….....…….....…….....	90,341	92,500	92,500	-2,339	90,161
Staff Years……	560	555	555	-10	545
Contingency Fund…….....…….....……..	1,384	470	470	+1	471
Staff Years……	15	5	5	-	5
Cotton Pests…….....…….....…….....	14,739	12,720	11,520	-3,326	8,194
Staff Years……	61	58	58	-	58
Emergency Preparedness & Response…….....……	15,690	16,966	16,966	+25	16,991
Staff Years……	89	90	90	-	90
Equine, Cervid, and Small Ruminant Health…….....	17,692	19,500	19,500	+34	19,534
Staff Years……	129	120	120	-	120
Field Crop & Rangeland Ecosystems Pests…….....…	4,144	4,193	4,193	+50	4,243
Staff Years……	15	19	19	-	19
Decentralized GSA Rental and DHS Security Payments…..	-	-	42,567	-	42,567
Staff Years……	-	-	-	-	-
National Veterinary Stockpile…….....…….....…	2,538	3,722	3,973	-251	3,722
Staff Years……	1	1	1	-	1
Pest Detection…….....…….....…….....	25,381	27,446	27,446	+58	27,504
Staff Years……	145	145	145	-	145
Physical/Operational Security…….....…….....…	4,952	5,146	5,146	-	5,146
Staff Years……	-	-	-	-	-
Plant Protection Methods Development…….....……	19,935	20,549	20,686	+48	20,734
Staff Years……	139	141	141	-	141
Specialty Crop Pests…….....…….....……	142,087	151,500	156,000	-10,818	145,182
Staff Years……	694	688	688	-7	681
Swine Health…….....…….....…….....	21,228	22,250	24,250	+586	24,836
Staff Years……	122	120	128	+2	130
Veterinary Biologics…….....…….....……	15,189	16,417	16,417	+31	16,448
Staff Years……	108	109	109	-	109
Veterinary Diagnostics…….....…….....……	29,175	31,540	31,540	+54	31,594
Staff Years……	190	190	190	-	190
Zoonotic Disease Management…….....…….....…	9,575	9,523	9,523	+10,013	19,536
Staff Years……	45	45	45	+19	64
General Provision 748……	-	20,000	-	-	-
Total Cost, Strategic Goal...……..……	546,400	594,924	623,179	-3,285	619,894
Staff Years, Strategic Goal……	3,093	3,070	3,078	+23	3,101
Subtotal, Appropriated Salaries and Expenses ……	758,519	841,721	871,315	-15,512	855,803
Subtotal, Buildings & Facilities…….....……	2,928	3,175	3,175	-	3,175
Total Cost, All Strategic Goals ……	761,447	844,896	874,490	-15,512	858,978
Total Staff Years, All Strategic Goals ……	4,617	4,695	4,713	-7	4,706

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		2013 Actual	2014 Actual	2015 Enacted	2016 Estimate
Animal Welfare		$20,500	$22,968	$22,968	$23,018
Horse Protection		527	572	572	579
Wildlife Damage Management		55,626	71,691	73,822	66,078
Wildlife Services Methods Development		14,379	15,462	15,462	15,505
Program Operational Costs		11,101	13,499	13,759	12,827
Indirect Costs		8,881	10,799	11,007	10,261
	Total Discretionary Costs for Strategic Goal 1	111,014	134,991	137,590	128,268
	FTEs	907	1,007	1,007	977
Performance Measure:	Animal Welfare: Percent of licensees inspected and registrants in substantial compliance of the Animal Welfare Act	96%	96%	97%	97%
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)	N/A	63%	70%	75%

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.

Tree & Wood Pests		42,864	47,560	44,280	37,326
Field Crop & Rangeland Ecosystems Pests (Grasshopper)		3,465	3,799	3,799	3,799
Program Operational Costs		5,650	6,263	5,863	5,015
Indirect Costs		4,520	5,011	4,691	4,012
	Total Discretionary Costs for Strategic Goal 2	56,498	62,633	58,633	50,152
	FTEs	362	358	358	354
Performance Measure:	Acreage protected by the Tree & Wood Pest Programs (Area outside of quarantine)	596 million	596 million	596 million	596 million
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

Program/Programs Items - Discretionary		2013 Actual	2014 Actual	2015 Enacted	2016 Estimate
Department Strategic Goal 3: Help America promote agricultural production and biotechnology exports as America works to increase food security.					
Agriculture Import/Export		10,106	11,561	11,561	16,093
Biotechnology Regulatory Services		13,725	14,871	15,478	15,499
Overseas Technical & Trade Operations		15,147	16,493	18,133	18,153
Program Operational Costs		4,753	5,235	5,509	6,066
Indirect Costs		3,803	4,188	4,407	4,853
	Total Discretionary Costs for Strategic Goal 3....	47,534	52,348	55,088	60,664
	FTEs.....	255	260	270	274
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	102	109	114	119
Performance Measure:	Percent of field release sites in compliance with biotechnology regulations designed to protect agriculture from plant pests	99%	99%	99%	99%
Performance Measure:	Average number of days to issue a product license for veterinary biologics	341 days	347 days	340 days	340 days
Department Strategic Goal 4: Ensure that all of America's children have access to safe, nutritious, and balanced meals.					
Agricultural Quarantine Inspection (Appropriated).....		21,569	22,058	22,058	24,051
Animal and Plant Health Regulatory Enforcement.....		12,317	13,304	13,304	13,336
Animal Health Technical Services.....		27,895	28,978	28,978	28,993
Aquatic Animal Health.....		1,711	1,847	1,847	1,852
Avian Health.....		39,354	42,919	42,919	42,964
Cattle Health.....		74,080	75,850	75,850	73,932
Contingency Fund.....		1,135	385	385	386
Cotton Pests.....		12,086	10,430	9,446	6,719
Emergency Preparedness & Response.....		12,866	13,912	13,912	13,933
Equine and Cervid Health.....		14,507	15,990	15,990	16,018
Field Crop & Rangeland Ecosystems Pests (Excluding Grasshopper).....		3,398	3,438	3,438	3,479
National Veterinary Stockpile.....		2,081	3,052	3,258	3,052
Pest Detection.....		20,812	22,506	22,506	22,553
Physical/Operational Security.....		4,060	4,220	4,220	4,220
Plant Protection Methods Development.....		16,347	16,850	16,963	17,002
Specialty Crop Pests.....		116,511	124,230	127,920	119,049
Swine Health.....		17,407	18,245	19,885	20,366
Veterinary Biologics.....		12,455	13,462	13,462	13,487
Veterinary Diagnostics.....		23,924	25,863	25,863	25,907
Zoonotic Disease Management.....		7,851	7,809	7,809	16,020
APHIS Info. Technology Infrastructure.....		4,001	4,251	4,251	4,251
Buildings & Facilities.....		2,928	3,175	3,175	3,175
GSA Rental and DHS Security Payment.....		-	-	42,567	42,567
General Provision 748 Citrus Greening.....		-	20,000	-	-
Program Operational Costs.....		53,947	56,750	57,319	56,990
Indirect Costs.....		43,158	45,400	45,855	45,592
	Total Discretionary Costs for Strategic Goal 4....	546,400	594,924	623,179	619,894
	FTEs.....	3,093	3,070	3,078	3,101

Program/Programs Items - Discretionary		2013 Actual	2014 Actual	2015 Enacted	2016 Estimate
Performance Measure:	Percent of States and Tribes receiving cooperative agreement funds that have a current strategic plan for animal disease traceability	75%	89%	95%	95%
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	86%	88%	82%	82%
Performance Measure:	Value of livestock and poultry protected by APHIS' animal health programs	$154 billion	$182 billion	$182 billion	$182 billion
Performance Measure:	Production value of cotton directly protected by APHIS' cotton pest programs	$1.7 billion	$1.7 billion	$1.7 billion	$1.7 billion

Program/Programs Items - Mandatory		2013 Actual	2014 Actual	2015 Enacted	2016 Estimate
AQI User Fees		199,685	225,548	237,560	232,563
Farm Bill: 10202 - National Clean Plant Network		-	-	-	-
Farm Bill: 10201 - Plant Pest & Disease Mgt. & Disaster Prevention		47,450	-	-	-
Farm Bill: 10007 - Consolidated Plant Pest & Disease Mgt. & Disaster Prevention Programs		-	58,900	57,938	62,500
Trust Funds		13,071	8,618	8,904	9,000
Program Operational Costs		-	-	-	-
Indirect Costs		-	-	-	-
	Total Mandatory Costs for Strategic Goal 5	260,206	293,066	304,401	304,063
	FTEs	1,315	1,315	1,315	1,315
Performance Measure:	Value of expanded and retained markets, new market access, and trade facilitated	$2.9 billion	$2.5 billion	$2.9 billion	$2.9 billion
Performance Measure:	Number of shipments released (in foreign ports of entry) as a result of APHIS intervention	279	273	280	300
	Subtotal, Salaries & Expenses Discretionary	758,519	841,721	871,315	855,803
	Subtotal, Buildings & Facilities	2,928	3,175	3,175	3,175
	Total Discretionary Request	761,447	844,896	874,490	858,978
	FTEs	4,617	4,695	4,713	4,706