

2025 USDA EXPLANATORY NOTES – ANIMAL AND PLANT HEALTH INSPECTION SERVICE

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PREFACE

This publication summarizes the fiscal year (FY) 2025 Budget for the U.S. Department of Agriculture (USDA). Throughout this publication any reference to the “Budget” is in regard to the 2025 Budget, unless otherwise noted. All references to years refer to fiscal year, except where specifically noted. The budgetary tables throughout this document show actual amounts for 2022 and 2023, annualized Continuing Resolution levels for 2024, and the President’s Budget request for 2025. Amounts for 2024 estimated levels include: non-enacted amounts such as Full-Time Equivalent levels, fleet levels, information technology investment levels, recovery levels, transfers in and out, balances available end of year, and obligation levels.

Throughout this publication, the “2018 Farm Bill” is used to refer to the Agriculture Improvement Act of 2018. Most programs funded by the 2018 Farm Bill are funded through 2023. Amounts shown in 2024 and 2025 for most Farm Bill programs reflect those confirmed in the baseline.

Pursuant to the Balanced Budget and Emergency Deficit Control Act of 1985, sequestration is included in the numbers for mandatory programs in 2022, 2023, 2024 and 2025.

In tables throughout this document, amounts equal to zero (0) are displayed as dashes (-). Amounts less than 0.5 and greater than zero are rounded and shown as a zero (0). This display treatment is used to prevent the masking of non-zero amounts that do not round up to one (1).

AGENCY-WIDE**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 safeguard the health, welfare, and value of American agriculture and natural resources.

APHIS, together with its stakeholders, protects the health of animal and plant resources to ensure abundant agricultural products and services for U.S. customers, and to facilitate their movement in the global marketplace to benefit rural communities and all Americans. As part of this mission, APHIS ensures that biotechnology-derived agricultural products do not inadvertently introduce plant pests or diseases and are available to American farmers to enhance production of food and fiber for the world. APHIS guards 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 monitors and responds to potential acts of agricultural bioterrorism, invasive species, diseases of wildlife and livestock, and conflicts between humans and wildlife. The Agency helps to resolve sanitary (animal) and phytosanitary (plant) trade barriers, as well as enforces Federal laws pertaining to the humane treatment of certain animals. Finally, APHIS plays a significant role in the Federal One Health initiative, helping to detect and prevent the spread of zoonotic diseases that threaten to move from animals to humans.

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

Safeguarding and Emergency Preparedness/Response

APHIS monitors animal and plant health domestically. APHIS also monitors disease situations throughout the world and uses this information to set effective agricultural import policies to prevent the introduction of foreign animal and plant pests and diseases. APHIS and the U.S. 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 and diseases, including those that impact crops, pollinators, woodlands, and livestock. 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. APHIS certifies animal and animal products, and plants and plant products, for export to other countries and regulates imports of designated endangered plant species.

Should a pest or disease enter the United States, APHIS works cooperatively with other Federal, State, and industry partners to conduct animal and plant 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 outbreaks to determine the origin of animal and plant pests and diseases and the most appropriate response actions to take including the development of tools and technologies to help manage these pests. APHIS also actively engages State, Tribal, and local governments, and industries to advance their emergency preparedness and response capabilities.

APHIS develops methods to control animals and pests that are detrimental to agriculture, wildlife, and public safety through its Wildlife Services program. The Agency's regulatory structure brings the benefits of genetic research to the marketplace, while ensuring they do not pose a plant pest risk. APHIS also conducts diagnostic laboratory activities that support the Agency's veterinary disease prevention, detection, control, eradication, and response programs.

Safe Trade and International Technical Assistance

Sanitary (animal) and phytosanitary (plant) (SPS) measures implemented by U.S. trading partners 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. 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 animal and plant pests and diseases while meeting obligations under the World Trade Organization's 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

General:

7 U.S.C. 1633	Talmadge-Aiken Act (cooperation with States)
7 U.S.C. 7759	User Fees (for export certification of plants)
21 U.S.C. 136-136a	User Fees
31 U.S.C. 9701	User Fees (offsetting collections and miscellaneous receipts)
7 U.S.C. 3291(a)	Authority to provide technical assistance and training.
7 U.S.C. 5623	Agricultural Trade Act of 1978 (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. 8301-8322	Animal Health Protection Act
7 U.S.C. 7501 note	American Rescue Plan Act (COVID surveillance)
49 U.S.C. 80502	28-Hour Law (feed, water, and rest for animals)

19 U.S.C. 1202	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. 398	Section 101(d) of the Organic Act of 1944
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 Foot-and-Mouth 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 and 8411	Title II, Subtitles B and C of the Public Health Security and Bioterrorism Preparedness and Response 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. 1551-1610	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. 7760	Terminal Inspection 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	Title II, Subtitle B of the Public Health Security and Bioterrorism Preparedness and Response Act of 2002
39 U.S.C. 3015	Alien Species Prevention and Enforcement Act of 1992

Wildlife Services:

7 U.S.C. 8351	Control of predatory and other wild animals Act of 1931
7 U.S.C. 8353	Control of nuisance mammals and birds and those constituting reservoirs of zoonotic disease
7 U.S.C. 8501-8507	Brown Tree Snake Control and Eradication Act of 2004

Animal Welfare:

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

Staffing and Offices

There were 5,843 permanent full-time employees as of September 30, 2023. Of the total, 904 full-time employees were located at the Riverdale, Maryland and Washington D.C headquarters and through Hubs located in Fort Collins, CO, Minneapolis, MN, and Raleigh, NC. APHIS conducts much of its work in cooperation with State and local agencies, private groups, and foreign governments. APHIS performs work in field offices located in all 50 States, Guam, Puerto Rico, Virgin Islands, Mexico, Central America, South America, the Caribbean, Western Europe, Asia, and Africa.

OIG AND GAO REPORTS

Table APHIS-1. Closed, Implemented OIG Reports

ID	Date	Title	Result
33601-0002-31	07/01/2021	Animal Care Program Oversight of Dog Breeders	<p>Recommendation 1 – Office of Inspector General (OIG) recommended the data reliability and security issues with the Animal Care Information System do not persist in Salesforce and eFile. APHIS provided documentation supporting the development of an eFile Change Control Board, copies of the Control Board’s monthly meeting minutes, a copy of the SOP for submitting requests through the AC Operations and Maintenance unit, and documentation concerning the hiring of a data management analyst and eFile data security support from OCIO- Client Experience Center. Closed by Management 03/27/2023.</p> <p>Recommendation 2 – OIG recommended APHIS develop and implement guidance, policies, and procedures to ensure a consistent response to complaints and to ensure the response is sufficiently documented. APHIS provided OCFO with Animal Welfare Operations (AWO) Complaint Process Guidance. Closed by Management 03/27/2023.</p> <p>Recommendation 3 – OIG recommended APHIS provide inspectors training on the process of responding to complaints, documenting actions taken, and the reason for those actions. APHIS provided OCFO with the Animal Care Inspection Guide, Program Crosswalk, Efile Training December 2021 Complaints, and GoToWebinar – e- File Training Complaints Process. Closed by Management 03/27/2023.</p>
33601-0004-23	09/30/2021	Follow-Up on Smuggling, Interdiction and Trade Compliance (SITC) Unit	<p>Recommendation 2 - Define the metrics such as benchmarks and performance measures that will measure SITC’s effectiveness at meeting its mission to address prior audit Recommendation 1. Provided documentation showing evidence APHIS has with a copy of the comprehensive project plan that addresses the 13 Recommendations, and APHIS should also include a copy of the newly developed program assessment process and program metrics that addresses program</p>

ID	Date	Title	Result
			<p>performance and goals. Closed by Management 12/07/2022.</p> <p>Recommendation 3 - Develop and implement oversight procedures for SITC management and supervisors to periodically review benchmarks and performance metrics and implement corrective actions if the metrics are not being achieved to address prior audit Recommendation 2. Provided documentation the SITC Program management has developed procedural guidance “SNICAS (SITC National Information, Communication and Activity System) Quality Control for Supervisors” and updated the SNICAS Data Approval Guide and Trace Closure Help documents to better address the oversight procedures for SITC managers. On November 8, 2022, the guidance and updated spreadsheet of outstanding data approval was issued to State Plant Health Directors (SPHD) and local supervisors. Closed by Management 04/18/2023.</p> <p>Recommendation 4 - Require supervisors to periodically review SITC officers’ adherence to SITC requirements in selecting markets to visit to address prior audit Recommendations 4, 5, and 8. Provided documentation SITC Program Management updated the SNICAS Data Approval Guide and created the SNICAS Quality Control for Supervisors document, which provides guidance and instructions regarding data approval and guidelines for selecting markets to survey. Closed by Management 03/13/2023.</p> <p>Recommendation 5- Implement procedures for SITC supervisors to require compliance checks to ensure that the previously identified pathways were closed to address prior audit Recommendation 9. The SITC Program Management developed and implemented a “Monthly Metrics Report” dashboard, which allows SITC Supervisors and managers to quickly identify pathways requiring attention, i.e., data approval needs, high-risk market locations that haven’t been surveyed, traces closed within 90 days, and all seizures entered into SNICAS. Closed by Management 03/13/2023.</p>

ID	Date	Title	Result
			<p>Recommendation 6 - Develop and implement written policies and procedures to support SITC's e-commerce sales function to ensure efficiency, effectiveness, and consistency in identifying prohibited products and assessing pathways. Provided documentation showing evidence APHIS developed and implemented written policies and procedures to support SITC's e-commerce sales function to ensure efficiency, effectiveness, and consistency in identifying prohibited products and assessing pathways. Closed by Management 11/22/2022.</p> <p>Recommendation 8 - In coordination with Office of General Council (OGC), determine the appropriate authorities required to effectively regulate e-commerce businesses. Based on OGC's determination, implemented the applicable policies to ensure SITC will be able to effectively identify buyers and sellers of prohibited products. Closed by Management 07/12/2023.</p> <p>Recommendation 9 - Establish a process to strengthen SITC's ability to receive the necessary data to identify buyers of prohibited products. Provided copies of policy and procedural documents developed to govern Plant Protection and Quarantine's (PPQ) interactions and communications with e-commerce companies including OGC's guidance. Closed by Management 03/13/2023.</p> <p>Recommendation 11 - Obtain confirmation from OGC on SITC's authority and the parameters for SITC inspections (including of sealed package contents), seizures, and traces for prohibited animal and plant products at secondary Express Courier Operation (ECO) sites. Provided a copy of the authorities and parameters, including OGC's confirmation, for SITC officers to perform inspections for prohibited animal and plant products while working in secondary ECOs. Closed by Management 12/01/2022.</p> <p>Recommendation 12 - Develop procedures and parameters for SITC officers to follow for performing inspections, seizures, and</p>

ID	Date	Title	Result
			<p>traces for prohibited products at secondary Express Courier Operation (ECO) sites. Provided updated procedures which document how SITC officers should conduct inspections at secondary ECO sites, including the process to select packages, and how to capture the total number of parcels inspected and results of those inspections in the appropriate information technology systems. Closed by Management 12/30/2022.</p> <p>Recommendation 13 - Notify SITC officers on the authority and the procedures to follow when performing inspections of sealed packages at secondary ECO sites. Provided evidence APHIS developed and implemented revised SITC officer training that includes the authority and procedures to follow when performing inspections of sealed packages at secondary ECO sites. Closed by Management 12/30/2022.</p>
33601-0003-23	03/12/2021	Follow-Up to APHIS' Controls Over Licensing of Animal Exhibitors	<p>Recommendation 2 - Consult with OGC to determine if APHIS has the authority under the AWA to require exhibitors to report animal escapes and/or attacks to APHIS, and if not take action to ensure exhibitors report animal escapes and/or attacks to APHIS. Provided the Regulatory Identification Number in accordance with the April 7, 2022, OCFO Memo-Guidance on Closing OIG Recommendations for Monetary Recovery or Regulatory Changes and the OGC opinion dated March 12, 2021. Closed by Management 03/13/2023.</p>
33701-0001-21	09/23/2020	National Veterinary Stockpile Oversight	<p>Recommendation 7 – Develop and implement a process to track the status of exercise participants' corrective actions to address recommendations from NVS-related exercises. Provided a copy of the SOP that includes a process to track the status of exercise participants' corrective actions to address recommendations from NVS-related exercises. Closed by Management June 6, 2023.</p>
33701-0002-21	07/27/2021	Controls Over Select Agents	<p>Recommendation 1 – Develop and implement policy and procedures requiring file managers and supervisors to periodically review Federal Select Agent Program (eFSAP) to provide reasonable assurance</p>

ID	Date	Title	Result
			<p>that information about select agents and associated strains maintained by registered entities is accurate and complete. Provided evidence APHIS has a Renewal Inspection – Select Agent Inventory Strain Verification Questionnaire and Policies and processes for ensuring that information about select agents and associated strains maintained by registered entities is accurate and complete. Closed by Management 01/30/2023.</p> <p>Recommendation 3 – Develop and implement policies that require file managers to collaborate with entities to verify and obtain documentation that individuals with expired Security Risk Assessments (SRAs) have been timely removed from accessing select agents. Provided a copy of the new policy outlining the collaboration process with the registered entities that includes procedures requiring the responsible official to verify and document that individuals with expired SRAs have been timely removed from accessing select agents. Closed by Management 12/30/2022.</p> <p>Recommendation 4 – Modify eFSAP to capture and retain SRA expiration dates and to notify agency officials when SRAs have expired. APHIS has Submitted documentation with its new policy that includes procedures that agency officials will be notified of SRAs that have expired. Closed by Management 01/09/2023.</p> <p>Recommendation 6 – Develop and implement guidance that details how inspectors should document their justifications for determinations that entities complied with Federal regulations. Specifically, APHIS guidance should: (1) describe the information reviewed that led to a pass determination of compliance; (2) define the meaning of pass statements, fail statements, non-applicable statements, and not assessed determinations. Provided a copy of new procedures detailing how inspectors should document their justification that led to a “pass” determination for inspection checklist items. Closed by Management 03/13/2023.</p>

ID	Date	Title	Result
			<p>Recommendation 7 – Develop and implement controls to periodically review a sample of inspections completed by inspectors to ensure all conclusions and responses are adequately supported and accurate. Provided documentation outlining its Team Lead Inspector supervisory duties while attending field inspections, including the procedures Team Lead Inspectors will perform to document confirmation that all conclusions and responses are adequately supported and accurate for the items observed. Closed by Management 03/13/2023.</p> <p>Recommendation 8 – Establish oversight controls, such as a tracking report, to monitor the status of registered entities’ progress to implement corrective actions. Establish procedures personnel should take to bring registered entities into compliance when corrective actions have not been timely resolved. Provided a new policy documenting the 1) controls in place to monitor the status of registered entities’ progress to implement corrective actions, and 2) procedures personnel will take to bring registered entities into compliance when entities have not timely implemented corrective actions. Closed by Management 04/18/2023.</p> <p>Recommendation 9 – Train personnel on how to implement the new guidance established in Recommendation 6 through 8. Provided a copy of the Training Material Standard Operation Procedures for Preparing and Performing Inspections. Closed by Management 07/31/2023.</p> <p>Recommendation 10 – Establish procedures to report all notifications of all theft, loss, and releases that meet APHIS’ definition of theft, loss, and release in APHIS’ annual report to Congress. APHIS submitted documentation that the definitions of and the reporting requirements for a “discovery,” “loss,” “theft,” and “release” of select agents and toxins has been evaluated, formalized, and documented in the select agent and toxin regulations. Closed by Management 04/18/2023.</p>

ID	Date	Title	Result
50701-0001-21	09/12/202018	USDA Activities for Agroterrorism Prevention, Detection and Response	Recommendation 4 – Identify actions the agency performs that can serve as vulnerability assessments for Homeland Security Presidential Directive (HSPD)-9 compliance. Include these actions in the annual report to USDA’s Office of Homeland Security (OHS) on agroterrorism preparedness. APHIS provided evidence that it reported actions as vulnerability assessments for HSPD-9 compliance to OHS, specifically mentioning actions reported as vulnerability assessments for HSPD-9 compliance evidenced by submission (or receipt from) OHS. Closed by Management 09/14/2023.

Table APHIS-2. Closed, Implemented GAO Reports

ID	Date	Title	Results
21-471	6/01/2021	Inspection of Imported Agriculture	<p>Recommendation 1 – The Director of CBP, in collaboration with the Director of APHIS, should report on the CBP-APHIS Joint Agency Task Force's progress in meeting its objectives for the 2014-2019 strategic plan, and develop periodic progress reports for future strategic plans. APHIS reported on the CBP-APHIS Joint Agency Task Force's progress for the 2014-2019 strategic plan and developed periodic progress reports for future strategic plans. Closed By Management 03/14/2023.</p> <p>Recommendation 2 – The Director of APHIS, in collaboration with the Director of CBP, should report on the CBP-APHIS Joint Agency Task Force's progress in meeting its objectives for the 2014-2019 strategic plan, and develop periodic progress reports for future strategic plans. APHIS reported on the CBP-APHIS Joint Agency Task Force's progress for the 2014-2019 strategic plan and developed periodic progress reports for future strategic plans. Closed By Management 03/14/2023.</p>

AVAILABLE FUNDS AND FTES**Table APHIS-3. Available Funds and FTEs (thousands of dollars, FTEs)**

Item	2022		2023		2024		2025	
	Actual	FTEs	Actual	FTEs	Estimated	FTEs	Estimated	FTEs
Salaries and Expenses:								
Discretionary Appropriations.....	\$1,851,514	5,076	\$1,566,649	5,100	\$1,384,354	5,055	\$1,174,871	5,154
Mandatory Appropriations.....	517,069	1,351	547,099	1,353	256,181	1,405	351,126	1,353
Offsetting Collections.....	252,322	1,785	299,580	1,865	263,000	1,865	263,000	1,865
Buildings and Facilities:								
Discretionary Appropriations.....	3,175	-	3,175	-	3,175	-	3,175	-
Trust Funds:								
Mandatory Appropriations.....	12,222	50	9,259	50	9,000	50	9,000	50
Total Discretionary Appropriations.....	1,854,689	5,076	1,569,824	5,100	1,387,529	5,055	1,178,046	5,154
Total Mandatory Appropriations.....	529,291	1,401	556,358	1,403	265,181	1,455	360,126	1,403
Total Offsetting Collections.....	252,322	1,785	299,580	1,865	263,000	1,865	263,000	1,865
Total Adjusted Appropriation.....	2,636,302	8,262	2,425,762	8,368	1,915,710	8,375	1,801,172	8,422
Balance Available, SOY.....	1,564,092	1,825	1,709,819	1,745	1,533,704	1,399	1,000,202	1,314
Rescinded Balances.....	-	-	-15,631	-	-	-	-16,500	-
Recoveries, Other.....	20,328	-	23,479	-	-	-	-	-
Total Available.....	4,220,721	10,087	4,143,429	10,113	3,449,414	9,774	2,784,874	9,736
Lapsing Balances.....	-8,171	-700	-14,310	-890	-	-	-	-
Transferred Balances.....	-188,728	-	-201,425	-	-	-	-	-
Balance Available, EOY.....	-1,709,819	-1,745	-1,533,704	-1,399	-1,000,202	-1,314	-680,754	-1,250
Total Obligations, APHIS.....	2,314,004	7,643	2,393,990	7,824	2,449,212	8,460	2,104,120	8,486
Other USDA:								
Agricultural Marketing Service.....	29,452	60	31,265	63	31,265	63	31,265	63
Agricultural Research Service.....	33,617	63	30,797	103	30,797	112	30,797	112
Departmental Administration.....	-	-	119	1	119	1	119	1
Farm Production and Conservation Business.....	-	-	88	-	88	-	88	-
Food Safety and Inspection Service.....	19	-	19	-	19	-	19	-
Foreign Agricultural Service.....	3,874	56	4,472	9	4,472	9	4,472	9
Forest Service.....	681	8	837	9	837	9	837	9
National Appeals Division.....	5	-	6	-	6	-	6	-
National Institute of Food and Agriculture.....	154	1	360	3	360	3	360	3
Natural Resources Conservation Service.....	108	1	74	1	74	1	74	1
Office of Budget and Program Analysis.....	-	-	56	1	56	1	56	1
Office of Chief Economist.....	4	-	-	-	-	-	-	-
Office of the Chief Financial Officer.....	-	-	1,250	-	1,250	-	1,250	-
Office of the Chief Information Officer.....	84	-	1,657	1	1,657	1	1,657	1
Office of Partnerships and Public Engagement.....	-	-	149	1	149	1	149	1
Office of the Secretary.....	119	-	201	-	201	-	201	-
Total, Other USDA.....	68,118	190	71,349	191	71,349	200	71,349	200
Total, Agriculture Available.....	4,288,839	10,277	4,214,778	10,303	3,520,763	9,974	2,856,223	9,936
Other Federal Funds:								
DOD, U.S. Air Force.....	13,737	122	15,148	139	15,148	139	15,148	139
DOD, Air National Guard.....	5,815	52	5,986	55	5,986	55	5,986	55
DOD, U.S. Navy.....	8,039	72	8,540	78	8,540	78	8,540	78
DOD, U.S. Marine Corps.....	1,400	13	1,936	18	1,936	18	1,936	18
DOD, U.S. Army.....	2,647	22	2,507	21	2,507	21	2,507	21
DOD, U.S. Army Corp of Engineers.....	2,318	21	1,995	18	1,995	18	1,995	18
DOD, Defense Threat Reduction Agency.....	6	-	91	-	91	-	91	-
Department of Energy.....	385	3	340	3	340	3	340	3
Department of Health and Human Services.....	475	1	54	-	54	-	54	-
DHS: for Coast Guard and other services and support.....	606	3	1,130	4	1,130	4	1,130	4
Federal Emergency Management Agency.....	459	11	149	-	149	-	149	-
National Aeronautics and Space Administration.....	527	5	521	5	521	5	521	5
USDOl, Bureau of Land Management & Reclamation:								
Office of Insular Affairs.....	2,550	23	2,011	18	2,011	18	2,011	18
USDOl, Bureau of Land Management & Reclamation: for administrative and technical support.....	1,284	6	1,089	8	1,089	8	1,089	8
USDOl, Fish and Wildlife Services: for natural resources and endangered species.....	3,560	31	2,840	26	2,840	26	2,840	26
USDOT: Federal Aviation Administration.....	1,468	13	1,371	13	1,371	13	1,371	13
Department of Veterans Affairs for miscellaneous services.....	32	-	27	-	27	-	27	-
Environmental Protection Agency.....	1,871	17	1,873	17	1,873	17	1,873	17
GSA: for miscellaneous services.....	6	-	3	-	3	-	3	-
Other Federal Funds.....	540	1	534	1	534	1	534	1
Total, Other Federal.....	47,726	416	48,143	422	48,143	422	48,143	422
Non-Federal Funds:								
Funds from organizations, states, and local entities for wildlife, plant, and animal services support.....	68,311	663	71,939	657	71,939	657	71,939	657

Item	2022		2023		2024		2025	
	Actual	FTEs	Actual	FTEs	Estimated	FTEs	Estimated	FTEs
Import-Export User Fees.....	42,818	296	45,251	311	45,658	314	46,069	317
Phytosanitary Certificate User Fees.....	19,530	148	14,855	133	14,988	134	15,123	135
Reimbursable Overtime.....	12,411	105	12,046	84	12,155	85	12,264	86
Veterinary Diagnostics User Fees.....	6,417	45	8,231	49	8,305	49	8,380	50
Other User Fees.....	191	-	15	-	45	-	55	-
Total, Non-Federal.....	149,678	1,258	152,337	1,234	153,091	1,239	153,831	1,245
Total Available, APHIS.....	4,486,243	11,951	4,415,259	11,959	3,721,997	11,635	3,058,197	11,602

PERMANENT POSITIONS BY GRADE AND FTES

Table APHIS-4. Permanent Positions by Grade and FTES

Item	2022			2023			2024			2025		
	D.C.	Field	Actual Total	D.C.	Field	Actual Total	D.C.	Field	Estimated Total	D.C.	Field	Estimated Total
SES.....	30	8	38	31	9	40	31	9	40	31	9	40
GS-15.....	75	84	159	72	84	156	72	84	156	72	84	156
GS-14.....	283	441	724	254	510	764	254	510	764	254	512	766
GS-13.....	244	681	925	211	772	983	211	772	983	211	772	983
GS-12.....	140	925	1,065	109	960	1,069	109	960	1,069	109	970	1,079
GS-11.....	76	773	849	90	805	895	90	805	895	90	812	902
GS-10.....	-	13	13	-	15	15	-	15	15	-	15	15
GS-9.....	50	487	537	60	500	560	60	500	560	60	501	561
GS-8.....	6	238	244	6	225	231	6	225	231	6	238	244
GS-7.....	33	607	640	28	628	656	28	628	656	28	671	699
GS-6.....	3	166	169	10	185	195	10	185	195	10	185	195
GS-5.....	7	130	137	6	87	93	6	87	93	6	87	93
GS-4.....	3	14	17	12	18	30	12	18	30	12	18	30
GS-3.....	-	3	3	1	3	4	1	3	4	1	3	4
Other Graded.....	8	144	152	14	138	152	14	138	152	14	138	152
Total Permanent...	958	4,714	5,672	904	4,939	5,843	904	4,939	5,843	904	5,015	5,919
Total Perm. FT EOY	958	4,714	5,672	904	4,939	5,843	904	4,939	5,843	904	5,015	5,919
FTE*.....	1,223	6,420	7,643	1,252	6,572	7,824	1,188	7,272	8,460	1,190	7,296	8,486

*Total FTEs are all inclusive of workforce categories including temporary positions.

VEHICLE FLEET**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. This includes travel for employees to conduct field visits, travel to the airports and field stations, and attend meetings, conferences, and trainings. The vehicles are used by the local offices to make short trips as required; some of them are driven within airports and quarantine areas where they cannot leave the facility.

APHIS has replaced some of the passenger vehicles with SUVs or light-duty trucks. The number of passenger vehicles has decreased in recent years.

Replacement Criteria

APHIS replaces vehicles in accordance with Title 41, CFR § 102–34.270 and the Agriculture Property Management Regulation Advisory 20-01, Vehicle Allocation Methodology Guidance for Vehicle Utilization Criteria and Lifecycle Model, dated October 1, 2019. Agency programs replace and retire vehicles using data on utilization, age, condition, and funding availability. Passenger vehicles must be driven at least 7,500 annual miles, or have 80 days of use in a year, for them to remain active in the fleet. The vehicles not meeting the USDA utilization criteria are required to be justified by the programs for review and approval, based on mission requirements and vehicle reassignments. In addition, the programs are required to complete the USDA Lifecycle Model to perform an owning versus leasing analysis to determine the most cost-effective option to acquire the vehicles. The lifecycle model is used to document all owned and leased acquisitions.

Reductions to Fleet

The annual reporting of APHIS’ vehicle inventory has remained under the 2018 based line number of 4,595 since 2019, and significantly lowered in 2020, 2021, and 2022, due to vehicle production challenges and supply chain issues. The limited vehicle availability and uncertainty of vehicle production contribute to longer vehicle delivery times. The vehicles ordered in one fiscal year are not generally received and accounted for until the next fiscal year. Due to this reason, APHIS’ fleet reported in the Federal Automotive Statistical Tool (FAST) system has been decreasing but will increase once all the vehicles ordered are delivered. Our fleet will continue to remain within the vehicle inventory-based line number. APHIS’ fleet operating cost increases approximately 2 percent each fiscal year.

Table APHIS-5. Size, Composition, and Annual Costs of Motor Vehicle Fleet

	Sedans and Station Wagons	Vans	SUVs	Light Trucks 4X2	Light Trucks 4X4	Medium Duty Vehicles	Buses	Heavy Duty Vehicles	Total Vehicles	Annual Operating Costs
2018 End of Year Operating Inventory	246	118	955	272	2,092	896	-	16	4,595	\$19,465,575
2022 End of Year Operating Inventory	159	88	845	210	2,005	934	-	15	4,256	22,485,364
2023 Actual Acquisitions.....	2	-	17	13	236	85	-	1	354	
2023 Actual Disposals	13	5	10	-	118	94	-	1	241	
2023 End of Year Operating Inventory	148	83	852	223	2,123	925	-	15	4,369	22,473,221
2024 Planned Acquisitions	21	14	161	70	304	103	-	3	676	
2024 Planned Disposals	21	14	152	70	276	89	-	1	623	
2024 End of Year Operating Inventory	148	83	861	223	2,151	939	-	17	4,422	27,574,293
2025 Planned Acquisitions	16	14	146	68	292	87	-	1	624	
2025 Planned Disposals	16	14	136	67	268	80	-	1	582	
2025 End of Year Operating Inventory	148	83	871	224	2,175	946	-	17	4,464	28,125,779

Note: Number of vehicles by type include vehicles owned by the agency and leased from commercial sources or GSA.

Annual Operating Costs excludes acquisition costs and gains from sale of vehicles as shown in FAST.

Table APHIS-6. Statement of Proposed Purchase of Passenger Motor Vehicles

Fiscal Year	Net Active Fleet, SOY	Disposals	Replacements	Additions	Total Acquisitions	Net Active Fleet, EOY
2022	167	8	-	-	-	159
2023	159	13	2	-	2	148
2024	148	21	21	-	21	148
2025	148	16	16	-	16	148

Aircraft

APHIS uses aircraft to conduct mission critical activities such as aerial resource and surveillance surveys, aerial application tests, equipment demonstration and testing, implementation of methods for the control and/or eradication of destructive plant pests or wildlife to reduce damage to agricultural crops, among others.

The annual appropriations act provides APHIS with authority to purchase, replace, operate, and maintain aircraft. The Agency replaces aircraft when necessary to maintain fleet safety and efficient operating conditions.

The APHIS aircraft fleet consists of 78 aircraft, of which 6 operational and 2 non-operational aircraft are used for domestic plant pest and disease management programs and are all owned. Of the remaining 70 aircraft used to support various wildlife damage management programs, 65 are owned, 3 are borrowed from State cooperators, and 2 are rented. Of the 65 owned aircraft, 4 are non-operational. APHIS retains certain non-operational aircraft for parts. APHIS is working to modify aircraft acquired from the Department of Defense. These aircraft are being used to retire legacy war era aircraft currently in the fleet.

SHARED FUNDING PROJECTS**Table APHIS-7. Shared Funding Projects (thousands of dollars)**

Item	2022 Actual	2023 Actual	2024 Estimated	2025 Estimated
Working Capital Fund:				
Administrative Services:				
Material Management Service	\$1,151	\$1,081	\$939	\$891
Mail and Reproduction Services.....	319	353	390	394
Integrated Procurement Systems.....	1,471	1,711	1,447	-
Procurement Operations Services.....	55	121	123	1,345
Human Resources Enterprise Management Systems.....	145	137	137	141
Fleet Charge Card Services.....	-	928	1,478	1,488
AskUSDA Contact Center	-	-	-	192
Subtotal	3,141	4,331	4,514	4,451
Communications:				
Creative Media & Broadcast Center.....	8,055	5,673	1,069	2,293
Finance and Management:				
National Finance Center	2,188	2,338	2,549	2,327
Internal Control Support Services.....	119	99	160	154
Financial Shared Services	10,174	10,316	11,473	10,978
Personnel and Document Security	-	385	444	448
Subtotal	12,481	13,138	14,626	13,907
Information Technology:				
Client Experience Center	32,138	31,544	28,118	27,628
Department Administration Information Technology Office.....	7	77	304	291
Digital Infrastructure Services Center	7,899	18,563	8,209	7,753
Enterprise Cybersecurity Services	-	2,482	4,627	5,134
Enterprise Data and Analytics Services.....	-	2,688	1,010	965
Enterprise Network Services.....	7,180	6,718	9,518	8,794
Subtotal	47,224	62,072	51,786	50,565
Correspondence Management Services:				
Office of the Executive Secretariat.....	1,252	416	435	362
Total, Working Capital Fund	72,153	85,630	72,430	71,578
Department-Wide Shared Cost Programs:				
Advisory Committee Liaison Services	7	5	9	9
Agency Partnership Outreach	488	578	597	597
Diversity, Equity, Inclusion and Accessibility	-	157	213	213
Medical Services.....	38	28	26	26
National Capital Region Interpreting Services	64	136	158	158
Office of Customer Experience	674	252	257	257
Personnel and Document Security Program	223	-	-	-
Physical Security.....	329	356	375	375
Security Detail	348	395	429	429
Security Operations Program.....	479	548	608	608
Talent Group	-	285	264	264
TARGET Center	99	130	142	142
USDA Enterprise Data Analytics Services.....	340	-	-	-
Employee Experience	-	270	299	299
Total, Department-Wide Reimbursable Programs.....	3,089	3,140	3,377	3,377
E-Gov:				
Budget Formulation and Execution Line of Business	8	7	7	8
E-Rulemaking	42	47	36	48
Financial Management Line of Business	13	13	14	14
Geospatial Line of Business.....	13	13	13	13
Grants.gov.....	3	-	-	-
Human Resources Management Line of Business.....	22	23	23	23
Integrated Acquisition Environment.....	37	49	63	61
Hiring Assessment Tool.....	18	-	-	-
Total, E-Gov	156	152	156	167
Agency Total.....	75,398	88,922	75,963	75,122

ADVERTISING EXPENDITURES

Table APHIS-8 Advertising Expenditures (thousands of dollars)

Item	2023 Actual Number of Contracts	2023 Actual Dollars Obligated	2024 Estimated Number of Contracts	2024 Estimated Dollars Obligated	2025 Estimated Number of Contracts	2025 Estimated Dollars Obligated
Total Contracts for Advertising Services.....	4	\$3,293	4	\$2,436	4	\$2,430
Contracts for Advertising Services to Socially and Economically Disadvantaged Small Businesses	-	-	-	-	-	-
Contracts for Advertising Services to Women- Owned and Minority-Owned Small Businesses	-	-	-	-	-	-

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*ACCOUNT I: SALARIES AND EXPENSES*APPROPRIATIONS LANGUAGE1 *Salaries and Expenses*

2 For necessary expenses of the Animal and Plant Health Inspection Service, including up to [~~\$30,000~~] ~~\$60,000~~ for
3 representation allowances and for expenses pursuant to the Foreign Service Act of 1980 (22 U.S.C. 4085),
4 [~~\$1,188,788,000~~]~~\$1,174,871,000~~; of which ~~\$2,000,000~~, to remain available until September 30, 2026, shall be
5 available for Overseas Technical and Trade Operations program overseas operations, including the payment of
6 locally employed staff; of which ~~\$1,000,000~~, to remain available until expended, shall be available to the Overseas
7 Technical and Trade Operations program for offsetting fluctuations in international currency exchange rates, subject
8 to documentation by the Animal and Plant Health Inspection Service; of which [~~\$543,000~~]~~\$531,000~~, to remain
9 available until expended, shall be available for the control of outbreaks of insects, plant diseases, animal diseases
10 and for control of pest animals and birds ("contingency fund") to the extent necessary to meet emergency conditions;
11 of which [~~\$15,737,000~~]~~\$15,613,000~~, to remain available until expended, shall be used for the cotton pests program,
12 including for cost share purposes or for debt retirement for active eradication zones; of which
13 [~~\$40,067,000~~]~~\$39,686,000~~, to remain available until expended, shall be for Animal Health Technical Services; of
14 which [~~\$3,166,000~~]~~\$4,166,000~~, shall be for activities under the authority of the Horse Protection Act of 1970, as
15 amended (15 U.S.C. 1831); of which [~~\$66,324,000~~]~~\$65,722,000~~, to remain available until expended, shall be used to
16 support avian health; of which [~~\$7,451,000~~]~~\$4,251,000~~, to remain available until expended, shall be for information
17 technology infrastructure; of which ~~\$40,763,000~~, to remain available until expended, shall be for Agricultural
18 Quarantine Inspection predeparture inspection activities; of which [~~\$222,037,000~~]~~\$218,927,000~~, to remain available
19 until expended, shall be for specialty crop pests, of which ~~\$8,500,000~~, to remain available until September 30,
20 [~~2025~~]~~2026~~, shall be for one-time control and management and associated activities directly related to the multiple-
21 agency response to citrus greening; of which, [~~\$15,425,000~~]~~\$10,242,000~~, to remain available until expended, shall
22 be for field crop and rangeland ecosystem pests; of which [~~\$24,430,000~~]~~\$21,773,000~~, to remain available until
23 expended, shall be for zoonotic disease management; of which [~~\$45,198,000~~]~~\$48,723,000~~, to remain available until
24 expended, shall be for emergency preparedness and response; of which [~~\$64,272,000~~]~~\$63,534,000~~, to remain
25 available until expended, shall be for tree and wood pests; of which [~~\$5,831,000~~]~~\$6,520,000~~, to remain available
26 until expended, shall be for the National Veterinary Stockpile; of which ~~\$6,016,000~~, to remain available until
27 expended, shall be for invasive species control in coordination with other Federal agencies and the Civilian Climate
28 Corps; of which up to ~~\$1,500,000~~, to remain available until expended, shall be for the scrapie program for
29 indemnities; of which ~~\$2,500,000~~, to remain available until expended, shall be for the wildlife damage management
30 program for aviation safety: *Provided*, That of amounts available under this heading for wildlife services methods
31 development, ~~\$1,000,000~~ shall remain available until expended: *Provided further*, That of amounts available under
32 this heading for the screwworm program, ~~\$4,990,000~~ shall remain available until expended; of which
33 [~~\$24,820,000~~]~~\$24,693,000~~, to remain available until expended, shall be used to carry out the science program and
34 transition activities for the National Bio and Agro-Defense Facility located in Manhattan, Kansas: *Provided further*,
35 That no funds shall be used to formulate or administer a brucellosis eradication program for the current fiscal year
36 that does not require minimum matching by the States of at least 40 percent: *Provided further*, That this
37 appropriation shall be available for the purchase, replacement, operation, and maintenance of aircraft: *Provided*
38 *further*, That in addition, in emergencies which threaten any segment of the agricultural production industry of the
39 United States, the Secretary may transfer from other appropriations or funds available to the agencies or
40 corporations of the Department such sums as may be deemed necessary, to be available only in such emergencies for
41 the arrest and eradication of contagious or infectious disease or pests of animals, poultry, or plants, and for expenses
42 in accordance with sections 10411 and 10417 of the Animal Health Protection Act (7 U.S.C. 8310 and 8316) and
43 sections 431 and 442 of the Plant Protection Act (7 U.S.C. 7751 and 7772), and any unexpended balances of funds
44 transferred for such emergency purposes in the preceding fiscal year shall be merged with such transferred amounts:
45 *Provided further*, That appropriations hereunder shall be available pursuant to law (7 U.S.C. 2250) for the repair and
46 alteration of leased buildings and improvements, but unless otherwise provided the cost of altering any one building
47 during the fiscal year shall not exceed 10 percent of the current replacement value of the building.

48 In fiscal year [~~2024~~]~~2025~~, the agency is authorized to collect fees to cover the total costs of providing technical
49 assistance, goods, or services requested by States, other political subdivisions, domestic and international
50 organizations, foreign governments, or individuals, provided that such fees are structured such that any entity's
51 liability for such fees is reasonably based on the technical assistance, goods, or services provided to the entity by the

52 agency, and such fees shall be reimbursed to this account, to remain available until expended, without further
 53 appropriation, for providing such assistance, goods, or services.

Change Description

The first change (line 3) proposes an increase to the cap allowed for representation allowances. These costs have increased in recent years with the return of international travel.

The second change (lines 5 through 7) proposes two-year authority to provide necessary flexibility to support overseas operations, including managing delayed repayments of funding that often cross fiscal years (e.g. rent deposits, medical bills that are reimbursed to the agency). This authority is similar to what is provided to the Foreign Agricultural Service.

The third change (lines 7 through 9) proposes no-year authority to the APHIS International Services unit to provide necessary flexibility to adjust for the impact of fluctuating international exchange rates. This authority is similar to what is provided to the Foreign Agricultural Service.

The fourth change (line 18 and 19) proposes no-year authority for the APHIS domestic Agriculture Quarantine Inspection program to better manage resources and demand for predeparture inspection services in the non-contiguous United States and Territories.

The fifth change (line 28 and 29) deletes text related to the Civilian Climate Corps. Congress did not support this request in 2023 and 2024 since the Civilian Climate Corps has not been established. Accordingly, APHIS removes this request from the Budget.

LEAD-OFF TABULAR STATEMENT

Table APHIS-9. Lead-Off Tabular Statement (In dollars)

Item	Amount
Estimate, 2024	\$1,171,071,000
Change in Appropriation	+ 3,800,000
Budget Estimate, 2025	<u>1,174,871,000</u>

2025 USDA EXPLANATORY NOTES – ANIMAL AND PLANT HEALTH INSPECTION SERVICE

PROJECT STATEMENTS

Table APHIS-10. Project Statement on Basis of Appropriations (thousands of dollars, FTEs)

Item	2022 Actual	FTEs	2023 Actual	FTEs	2024 Estimated	FTEs	2025 Estimated	FTEs	Inc. or Dec.	FTE Inc. or Dec.	Chg Key
Discretionary Appropriations:											
Safeguarding and Emergency Preparedness/Response											
Animal Health Technical Services.....	\$38,486	151	\$39,183	151	\$39,183	151	\$39,686	151	+\$503	-	(1)
Aquatic Animal Health	2,306	13	5,000	18	5,000	18	7,625	25	+2,625	+7	(2)
Avian Health	63,833	238	64,930	238	64,930	238	65,722	238	+792	-	(3)
Cattle Health	108,500	493	111,771	493	111,771	493	112,066	493	+295	-	(4)
Equine, Cervid & Small Ruminant Health.....	32,284	116	35,319	116	35,319	116	23,205	116	-12,114	-	(5)
National Veterinary Stockpile.....	5,751	6	6,500	6	6,500	6	6,520	6	+20	-	(6)
Swine Health.....	25,390	142	26,044	142	26,044	142	30,767	147	+4,723	+5	(7)
Veterinary Biologics	20,898	126	21,479	126	21,479	126	21,898	126	+419	-	(8)
Veterinary Diagnostics.....	61,414	196	63,777	196	63,777	196	64,429	196	+652	-	(9)
Zoonotic Disease Management.....	20,282	62	21,567	62	21,567	62	21,773	62	+206	-	(10)
Subtotal, Animal Health.....	379,144	1,543	395,570	1,548	395,570	1,548	393,691	1,560	-1,879	+12	
Agricultural Quarantine Inspection (Appropriated).....	33,849	367	35,541	367	35,541	367	40,763	424	+5,222	+57	(11)
Cotton Pests.....	14,725	49	15,450	49	15,450	49	15,613	49	+163	-	(12)
Field Crop & Rangeland Ecosystems Pests	11,137	75	14,986	77	14,986	77	10,242	77	-4,744	-	(13)
Pest Detection	28,218	186	29,075	186	29,075	186	29,694	186	+619	-	(14)
Plant Protection Methods Development	21,217	128	22,557	130	22,557	130	22,990	130	+433	-	(15)
Specialty Crop Pests.....	209,553	791	216,117	796	216,117	796	218,927	803	+2,810	+7	(16)
Tree & Wood Pests	61,217	292	62,562	292	62,562	292	63,534	292	+972	-	(17)
Subtotal, Plant Health	379,916	1,888	396,288	1,897	396,288	1,897	401,763	1,961	+5,475	+64	
Wildlife Damage Management	116,312	587	121,957	623	121,957	623	124,031	623	+2,074	-	(18)
Wildlife Services Methods Development	23,363	122	26,244	126	26,244	126	26,663	126	+419	-	(19)
Subtotal, Wildlife Services	139,675	709	148,201	749	148,201	749	150,694	749	+2,493	-	
Animal & Plant Health Regulatory Enforcement	16,697	114	18,722	120	18,722	120	19,121	120	+399	-	(20)
Biotechnology Regulatory Services.....	19,262	93	19,691	93	19,691	93	23,681	110	+3,990	+17	(21)
Subtotal, Regulatory Services	35,959	207	38,413	213	38,413	213	42,802	230	+4,389	+17	
Contingency Fund.....	491	5	514	5	514	5	531	5	+17	-	(22)
Emergency Preparedness & Response.....	42,021	193	44,067	197	44,067	197	48,723	223	+4,656	+26	(23)
Subtotal, Emergency Management	42,512	198	44,581	202	44,581	202	49,254	228	+4,673	+26	
Subtotal Safeguarding & Emergency Preparedness/Response	977,206	4,545	1,023,053	4,609	1,023,053	4,609	1,038,204	4,728	+15,151	+119	

2025 USDA EXPLANATORY NOTES – ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Item	2022		2023		2024		2025		Inc. or Dec.	FTE Inc. or Dec.	Chg Key
	Actual	FTEs	Actual	FTEs	Estimated	FTEs	Estimated	FTEs			
Safe Trade and International Technical Assistance											
Agriculture Import/Export	17,928	81	19,292	84	19,292	84	19,572	84	+280	-	(24)
Overseas Technical & Trade Operations	24,333	52	25,572	57	25,572	57	26,544	57	+972	-	(25)
Subtotal Safe Trade & International Technical Assistance	42,261	133	44,864	141	44,864	141	46,116	141	+1,252	-	
Animal Welfare											
Animal Welfare	32,256	228	37,506	260	37,506	260	38,372	260	+866	-	(26)
Horse Protection.....	3,040	12	4,096	21	4,096	21	4,166	21	+70	-	(27)
Subtotal, Animal Welfare	35,296	240	41,602	281	41,602	281	42,538	281	+936	-	
Agency Wide Programs											
APHIS Information Technology Infrastructure	4,251	-	4,251	-	4,251	-	4,251	-	-	-	(28)
Physical/Operational Security	5,163	4	5,182	4	5,182	4	5,195	4	+13	-	(29)
Rental and DHS Security Payments.....	42,567	-	42,567	-	42,567	-	38,567	-	-4,000	-	(30)
Subtotal, Agency Management	51,981	4	52,000	4	52,000	4	48,013	4	-3,987	-	
Congressionally Direct Spending.....	3,474	-	9,552	-	9,552	-	-	-	-9,552	-	(31)
General Provision 775 – Cogongrass.....	3,000	-	-	-	-	-	-	-	-	-	
Working Capital Funds	-1,496	-	-1,000	-	-	-	-	-	-	-	
Commodity Credit Corporation	739,791	154	396,578	65	213,283	20	-	-	-213,283	-20	
Subtotal	1,851,514	5,076	1,566,649	5,100	1,384,354	5,055	1,174,871	5,154	-209,483	+99	
Mandatory Appropriations:											
Farm Bill, Section 7721	75,000	26	75,000	26	75,000	26	75,000	26	-	-	
Farm Bill, Section 2408	-	-	-	-	7,500	52	-	-	-7,500	-52	
Farm Bill, Section 12101	-	-	30,000	2	30,000	2	30,000	2	-	-	
Sequester P.L. 113-6...Farm Bill.....	-4,275	-	-5,985	-	-6,413	-	-5,985	-	+428	-	
Agricultural Quarantine Inspection User Fees:											
Total Collections	606,658	1,325	778,813	1,325	825,000	1,325	843,975	1,325	+18,975	-	
Less: Transfer to DHS.....	-399,509	-	-312,575	-	-672,228	-	-590,783	-	+81,446	-	
Sequester P.L. 113-6 ...AQI.....	-26,192	-	-44,346	-	-47,025	-	-48,107	-	-1,082	-	
Sequester Restored...AQI User Fees.....	15,387	-	26,192	-	44,346	-	47,025	-	+2,679	-	
General Provision 785 - AQI User Fees	250,000	-	-	-	-	-	-	-	-	-	
Trust Funds	12,222	50	8,785	50	9,000	50	9,000	50	-	-	
Foreign Service National Separation Liability Trust	-	-	474	-	-	-	-	-	-	-	

2025 USDA EXPLANATORY NOTES – ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Item	2022		2023		2024		2025		Inc. or Dec.	FTE Inc. or Dec.	Chg Key
	Actual	FTEs	Actual	FTEs	Estimated	FTEs	Estimated	FTEs			
Subtotal	529,291	1,401	556,358	1,403	265,181	1,455	360,126	1,403	+94,945	-52	
Supplemental Appropriations:											
AQI User Fees General Provision 2102.....	-	-	125,000	-	-	-	-	-	-	-	-
Less: Transfer to DHS.....	-	-	-125,000	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-
Offsetting Collections:											
Offsetting Collection.....	252,322	1,785	299,580	1,865	263,000	1,865	263,000	1,865	-	-	-
Subtotal	252,322	1,785	299,580	1,865	263,000	1,865	263,000	1,865	-	-	-
Total Adjusted Appropriation	2,633,127	8,262	2,422,587	8,368	1,912,535	8,375	1,797,997	8,422	-114,538	+47	
Add back:											
Transfers In and Out, Rescissions.....	-338,787	-154	41,997	-65	458,945	-20	590,783	-	+131,838	+20	
Sequestration.....	15,080	-	24,139	-	9,092	-	7,067	-	-2,025	-	
Total Appropriation.....	2,309,420	8,108	2,488,723	8,303	2,380,572	8,355	2,395,846	8,422	+15,275	+67	
Transfers In:											
Commodity Credit Corporation	739,791	154	396,578	65	213,283	20	-	-	-213,283	-20	
Total Transfers In.....	739,791	154	396,578	65	213,283	20	-	-	-213,283	-20	
Transfers Out:											
Working Capital Funds	-1,496	-	-1,000	-	-	-	-	-	-	-	-
Transfer to DHS	-399,509	-	-437,575	-	-672,228	-	-590,783	-	+81,446	-	
Total Transfers Out	-401,005	-	-438,575	-	-672,228	-	-590,783	-	+81,446	-	
Rescission.....	-	-	-	-	-	-	-	-	-	-	-
Sequestration.....	-15,080	-	-24,139	-	-9,092	-	-7,067	-	+2,025	-	
Recoveries, Other.....	20,328	-	22,910	-	-	-	-	-	-	-	-
Rescinded Balances.....	-	-	-15,631	-	-	-	-16,500	-	-16,500	-	-
Bal. Available, SOY.....	1,520,397	1,825	1,680,732	1,745	1,505,505	1,399	972,528	1,314	-532,978	-85	
Total Available.....	4,173,851	10,087	4,110,598	10,113	3,418,040	9,774	2,754,025	9,736	-664,015	-38	
Lapsing Balances	-8,171	-700	-14,310	-890	-	-	-	-	-	-	-
Transferred Balances.....	-188,728	-	-201,425	-	-	-	-	-	-	-	-
Bal. Available, EOY	-1,680,732	-1,745	-1,505,505	-1,399	-972,528	-1,314	-679,987	-1,250	+292,541	+64	
Total Obligations.....	2,296,221	7,643	2,389,358	7,824	2,445,512	8,460	2,074,038	8,486	-371,475	+26	

2025 USDA EXPLANATORY NOTES – ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Table APHIS-11. Project Statement on Basis of Obligations (thousands of dollars, FTEs)

Item	2022 Actual	FTEs	2023 Actual	FTEs	2024 Estimated	FTEs	2025 Estimated	FTEs	Inc. or Dec.	FTE Inc. or Dec.
Discretionary Obligations:										
Safeguarding and Emergency Preparedness/Response										
Animal Health Technical Services.....	\$40,377	115	\$40,681	115	\$38,879	151	\$39,686	151	+\$807	-
Aquatic Animal Health	2,300	12	4,983	16	5,000	18	7,625	25	+2,625	+7
Avian Health	61,232	229	62,216	241	65,130	238	65,722	238	+592	-
Cattle Health	107,468	442	112,335	476	111,477	493	112,066	493	+589	-
Equine, Cervid & Small Ruminant Health.....	32,264	115	35,275	116	35,319	116	23,205	116	-12,114	-
National Veterinary Stockpile.....	4,772	6	6,929	6	6,719	6	6,520	6	-199	-
Swine Health.....	25,283	124	25,990	123	26,044	142	30,767	147	+4,723	+5
Veterinary Biologics	20,881	98	21,389	98	21,479	126	21,898	126	+419	-
Veterinary Diagnostics.....	49,286	137	58,228	147	68,025	196	66,429	196	-1,596	-
Zoonotic Disease Management.....	19,766	60	22,858	62	21,648	62	22,773	62	+1,125	-
Subtotal, Animal Health.....	363,629	1,338	390,884	1,400	399,720	1,548	396,691	1,560	-3,029	+12
Agricultural Quarantine Inspection (Appropriated).....										
Cotton Pests.....	33,811	365	35,417	365	35,541	367	40,763	424	+5,222	+57
Cotton Pests.....	14,411	31	16,199	23	15,214	49	15,613	49	+399	-
Field Crop & Rangeland Ecosystems Pests	12,605	48	14,218	50	15,096	77	10,242	77	-4,854	-
Pest Detection	28,112	140	28,942	140	29,075	186	29,694	186	+619	-
Plant Protection Methods Development	21,194	96	22,329	96	22,557	130	22,990	130	+433	-
Specialty Crop Pests.....	209,638	721	224,144	707	218,049	796	218,927	803	+878	+7
Tree & Wood Pests	61,880	237	63,404	233	63,068	292	63,534	292	+466	-
Subtotal, Plant Health	381,651	1,638	404,654	1,614	398,601	1,897	401,763	1,961	+3,162	+64
Wildlife Damage Management										
Wildlife Damage Management	115,582	575	120,595	590	123,725	623	124,031	623	+306	-
Wildlife Services Methods Development	23,598	102	25,449	102	25,468	126	26,663	126	+1,195	-
Subtotal, Wildlife Services	139,180	677	146,044	692	149,193	749	150,694	749	+1,501	-
Animal & Plant Health Regulatory Enforcement										
Animal & Plant Health Regulatory Enforcement	16,284	101	18,674	106	18,722	120	19,121	120	+399	-
Biotechnology Regulatory Services.....	19,142	90	19,544	88	19,691	93	23,681	110	+3,990	+17
Subtotal, Regulatory Services	35,426	191	38,218	194	38,413	213	42,802	230	+4,389	+17
Emergency Preparedness & Response.....										
Emergency Preparedness & Response.....	41,825	208	43,733	200	42,048	197	50,723	223	+8,675	+26
Subtotal, Emergency Management	41,825	208	43,733	200	42,048	197	50,723	223	+8,675	+26
Subtotal Safeguarding and Emergency Preparedness/Response										
Subtotal Safeguarding and Emergency Preparedness/Response	961,711	4,052	1,023,532	4,100	1,027,975	4,604	1,042,673	4,723	+14,698	+119

2025 USDA EXPLANATORY NOTES – ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Item	2022		2023		2024		2025		FTE Inc.	
	Actual	FTEs	Actual	FTEs	Estimated	FTEs	Estimated	FTEs	Inc. or Dec.	or Dec.
Safe Trade and International Technical Assistance										
Agriculture Import/Export	17,904	71	19,184	75	19,292	84	19,572	84	+280	-
Overseas Technical & Trade Operations	24,306	53	25,488	56	25,572	57	26,544	57	+972	-
Subtotal Safe Trade and International Technical Assistance	42,210	124	44,672	131	44,864	141	46,116	141	+1,252	-
Animal Welfare.....										
Animal Welfare.....	31,734	192	37,379	193	37,506	260	38,372	260	+866	-
Horse Protection.....	2,988	9	4,010	14	4,096	21	4,166	21	+70	-
Subtotal, Animal Welfare	34,722	201	41,390	207	41,602	281	42,538	281	+936	-
Agency Wide Programs										
APHIS Information Technology Infrastructure	4,112	-	4,462	-	4,191	-	4,251	-	+60	-
Physical/Operational Security.....	5,163	2	5,106	4	5,182	4	5,195	4	+13	-
Rental and DHS Security Payments.....	42,567	-	42,511	-	42,567	-	38,567	-	-4,000	-
Subtotal, Agency Management.....	51,842	2	52,080	4	51,940	4	48,013	4	-3,927	-
Congressionally Direct Spending.....	3,474	-	9,552	-	9,552	-	-	-	-9,552	-
General Provision 775 – Cogongrass.....	2,950	-	1,758	-	-	-	-	-	-	-
General Provision Citrus Greening	271	-	-	-	-	-	-	-	-	-
Subtotal Discretionary Obligations.....	1,097,179	4,379	1,172,984	4,442	1,175,932	5,030	1,179,340	5,149	+3,408	+119
Mandatory Obligations:										
Farm Bill, Section 7721	69,932	11	70,128	20	70,725	26	70,725	26	-	-
Farm Bill, Section 2408	9,118	61	12,499	47	7,073	52	-	-	-7,073	-52
Farm Bill, Section 12101	34,204	6	39,226	7	28,211	2	28,290	2	+79	-
Agricultural Quarantine Inspection User Fees.....	222,798	1,150	248,678	1,192	276,676	1,325	253,193	1,325	-23,483	-
Trust Funds	12,701	34	9,734	31	9,500	50	9,500	50	-	-
Foreign Service National Separation Liability Trust	2,527	-	474	-	-	-	-	-	-	-
Subtotal Mand Obligations	351,280	1,262	380,740	1,297	392,185	1,455	361,708	1,403	-30,477	-52
Supplemental Obligations:										
American Rescue Plan	43,297	22	245,577	58	-	-	-	-	-	-
USMCA Lacey Act.....	426	-	1,371	-	-	-	-	-	-	-
Subtotal Supp Obligations	43,723	22	246,949	58	-	-	-	-	-	-
Other Obligations:										
Commodity Credit Corporation (CCC).....	535,565	116	314,568	180	604,395	110	257,990	69	-346,405	-41
Offsetting Collection.....	265,523	1,864	271,830	1,847	273,000	1,865	275,000	1,865	+2,000	-
Homeland Security, HUB Relo & Department.....	-	-	6	-	-	-	-	-	-	-
H1N1	158	-	-	-	-	-	-	-	-	-
Refunds for equipment sold	2,792	-	2,281	-	-	-	-	-	-	-

2025 USDA EXPLANATORY NOTES – ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Item	2022		2023		2024		2025		FTE Inc.	
	Actual	FTEs	Actual	FTEs	Estimated	FTEs	Estimated	FTEs	Inc. or Dec.	or Dec.
Subtotal Other Obligations.....	804,038	1,980	588,686	2,027	877,395	1,975	532,990	1,934	-344,405	-41
Total Obligations.....	2,296,221	7,643	2,389,358	7,824	2,445,512	8,460	2,074,038	8,486	-371,475	+26
Add back:										
Lapsing Balances	8,171	700	14,310	890	-	-	-	-	-	-
Balances Available, EOY:										
Discretionary										
Animal Health Technical Services.....	6,955	46	5,696	46	6,000	46	6,000	46	-	-
Avian Health	10,890	30	15,421	27	15,222	27	6,722	27	-8,500	-
Cattle Health	2,408	-	1,706	-	2,000	-	2,000	-	-	-
Equine Cervid & Small Ruminant Health.....	500	-	500	-	500	-	500	-	-	-
National Veterinary Stockpile.....	2,572	3	2,219	3	2,000	3	2,000	3	-	-
Veterinary Diagnostics.....	38,562	-	44,248	-	40,000	-	33,000	-	-7,000	-
Zoonotic Disease Management.....	7,167	-	6,081	-	6,000	-	2,000	-	-4,000	-
Emergency Preparedness & Response.....	16,875	15	17,981	12	20,000	12	18,000	12	-2,000	-
Cotton Pests.....	1,503	11	764	11	1,000	11	1,000	11	-	-
Field Crop & Rangeland Ecosystems Pests	2,061	34	4,110	61	4,000	61	4,000	61	-	-
Specialty Crop Pests.....	31,550	129	26,932	218	25,000	218	25,000	218	-	-
Tree & Wood Pests	3,651	82	3,506	82	3,000	82	3,000	82	-	-
Wildlife Damage Management	4,586	-	5,768	-	4,000	-	4,000	-	-	-
Wildlife Services Methods Development	480	-	1,224	-	2,000	-	2,000	-	-	-
Contingency Funds	3,386	25	3,900	30	4,414	35	4,945	40	+531	+5
APHIS Information Technology Infrastructure	348	-	140	-	200	-	200	-	-	-
HUB Relocation.....	6	-	0	-	-	-	-	-	-	-
Commodity Credit Corporation (CCC).....	790,699	504	875,972	389	484,860	299	226,870	230	-257,990	-69
General Provision 775 – Cogongrass.....	1,758	-	-	-	-	-	-	-	-	-
USMCA Lacey Act.....	1,371	-	-	-	-	-	-	-	-	-
Offsetting Collections	142,706	100	157,134	118	147,134	118	135,134	118	-12,000	-
Mandatory										
Agricultural Quarantine Inspection User Fees.....	317,147	378	317,874	378	191,291	378	190,209	378	-1,082	-
American Rescue Plan Act	256,714	312	74	-	74	-	74	-	-	-
Farm Bill Section 10202	20	-	-	-	-	-	-	-	-	-
Farm Bill Section 12101	15,631	14	5,921	9	6,000	9	6,000	9	-	-
Farm Bill Section 2408	11,977	47	-	-	-	-	-	-	-	-
Trust Funds	9,209	15	8,333	15	7,833	15	7,333	15	-500	-
Total Bal. Available, EOY.....	1,680,732	1,745	1,505,505	1,399	972,528	1,314	679,987	1,250	-292,541	-64
Total Available.....	3,985,123	10,087	3,909,173	10,113	3,418,040	9,774	2,754,025	9,736	-664,015	-38
Less:										
Total Transfers In.....	-739,791	-154	-396,578	-65	-213,283	-20	-	-	+213,283	+20

2025 USDA EXPLANATORY NOTES – ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Item	2022		2023		2024		2025		FTE Inc.	
	Actual	FTEs	Actual	FTEs	Estimated	FTEs	Estimated	FTEs	Inc. or Dec.	or Dec.
Total Transfers Out.....	401,005	-	438,575	-	672,228	-	590,783	-	-81,446	-
Transferred Balances.....	188,728	-	201,425	-	-	-	-	-	-	-
Sequestration.....	15,080	-	24,139	-	9,092	-	7,067	-	-2,025	-
Recoveries, Other.....	-20,328	-	-22,910	-	-	-	-	-	-	-
Rescinded Balances.....	-	-	15,631	-	-	-	16,500	-	+16,500	-
Bal. Available, SOY.....	-1,520,397	-1,825	-1,680,732	-1,745	-1,505,505	-1,399	-972,528	-1,314	+532,978	+85
Total Appropriation.....	2,309,420	8,108	2,488,723	8,303	2,380,572	8,355	2,395,846	8,422	+15,275	+67

JUSTIFICATION OF CHANGES

A large portion of APHIS' budget is in support of personnel compensation. The request includes a total of \$16,761,000 to cover increases in pay for associated employees in 2025. These increases will support the annualization of the 5.2 percent Cost of Living pay increase in 2024, and the 2.0 percent Cost of Living pay increase in 2025. This critical increase is needed for the Agency to fully meet its mission to safeguard the health, welfare, and value of American agriculture and natural resources. These rising costs would need to be absorbed by programs absent additional funding, impacting the level of activities and services provided to our stakeholders and partners. This would result in an estimated reduction in programmatic work equivalent to 130 FTEs. The budget request would allow APHIS to support and maintain staffing levels needed to meet the demands and statutory requirements imposed on APHIS, including the Agency's emergency response capabilities for pest and disease outbreaks. Without the pay cost increase APHIS would need to reduce a number of program activities, including reductions in Federal contributions to support States and other cooperators in combatting animal and plant pests and diseases, and addressing conflicts with wildlife.

APHIS' international programs incur specific costs, including annual increases in International Cooperative Administrative Support Services (ICASS) costs charged by the U.S. Department of State (State) to provide shared administrative services at overseas locations as well as increases to locally employed (LE) staff salaries and benefits, which are tied to local laws in other countries. Under ICASS regulations, participating agencies are required to pay their portion of costs provided for continuous administrative support services for overseas offices. These projected costs are based on State's global analysis which estimated growth in overseas wage increases, overseas prices inflation and cost relocation of strategic activities into the ICASS platform. ICASS costs are expected to increase by 5.6 percent in 2025, and LE pay costs will increase by an average of 5.4 percent. State continues to adjust its compensation plans for overseas staff, and APHIS must support these increased compensation costs for all LE staff in 2025. APHIS is proposing increases to cover these costs within the Cattle Health (\$103,000), the Specialty Crop Pests (\$622,000), and the Overseas Technical Trade Operations (\$782,000) line items. Over time, these unavoidable expenses erode the program's ability to fill vacancies and maintain program operations when additional funding is not provided to cover them.

(1) Animal Health Technical Services: An increase of \$503,000 (\$39,183,000 and 151 FTE available in 2024).

APHIS' Animal Health Technical Services (AHTS) program develops and enhances tools for acquiring and managing information vital for improving global market access for U.S. livestock and animal products. Incorporating national surveillance standards into data management applications allows the program to compile animal health information nationally, thus leveraging the work of animal health professionals nationwide to meet local, State, and national veterinary health objectives. The National Veterinary Accreditation Program (NVAP) trains private veterinarians to help producers meet export requirements and disease program standards, allowing U.S. animals and animal products to compete in the global economy.

The national animal disease traceability (ADT) framework allows Federal, State, local, 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 \$149 billion in 2022 (USDA National Agricultural Statistics Services). The framework enables animal health officials to trace an animal from the location of official identification to their last location, which is often the termination point or slaughter plant. Knowledge of the location of diseased and at-risk animals helps preserve animal health; enables a rapid response in case of an animal disease event; reduces animal illnesses and deaths during outbreaks; and decreases costs for producers, consumers, and the government. This system also assures our trading partners that States, and USDA can rapidly contain an animal disease event. Each year, APHIS provides cooperative agreement funds to States to help them establish and maintain support for State ADT activities. Currently all States receiving program funds have approved ADT strategic plans in place with APHIS. The ADT program continues to progress in maximizing flexibility while maintaining effectiveness and increasing the timeliness of retrieving traceability data.

In 2023, APHIS distributed 6.6 million official RFID tags to States as an optional alternative to metal ear tags. The tags were provided at no cost, and each State veterinarian distributes the tags in a way that best serves their industry. The tags are available as orange RFID official vaccination tags for use in heifers vaccinated for brucellosis, or white RFID tags for non-vaccinated heifers. As of October 1, 2023,

approximately 22.5 million RFID tags have been provided as an alternative to visual metal ID since distribution began in 2020.

The AHTS program evaluates data systems and applications to determine if they should enhance them or develop new systems and applications. APHIS makes these systems available to States and Tribal Nations to support their traceability plans and other animal health activities. In 2023, APHIS continued modernization efforts for the Animal Disease Traceability Information System (ADTIS). The ADTIS is an information management system that APHIS utilizes to maintain records of official identification devices and other information associated with official identification numbers of animals. The system contains several modules that maintain information to support APHIS' ability to respond to animal health events. The modernization efforts focused on maintaining the components, features, and services of ADTIS into a central location without the need to use separate applications. In 2023, APHIS followed up the ADTIS modernization effort with an additional contract that identified system bug fixes and provided additional enhancements. APHIS continued modernization of the Animal Identification Management System (AIMS) in 2023. AIMS is used to administer official animal identification numbers and devices and other events associated with an official identification number. This modernization effort includes an enhanced user interface, recording of animal characteristics (age, sex, breed, etc.) and the ability to associate more than one identification device per animal, and will be completed in 2024.

More than 71,000 highly trained, accredited veterinarians act as the first line of defense for reportable domestic and foreign animal diseases. The voluntary NVAP authorizes private veterinary practitioners to work cooperatively with Federal veterinarians and State animal health officials to report when they suspect these diseases to be present. This provides the first step in rapid diagnosis, quarantine, and other control measures to safeguard our nation's animal and human health. Accredited veterinarians also provide official animal, flock, and herd health certifications, disease testing, and traceability practices for billions of animals each year. Mandatory training and accreditation renewal provides increased knowledge of animal disease surveillance, prevention, zoonoses, judicious antimicrobial use, animal welfare, and disaster preparedness. APHIS currently hosts 37 web-based supplemental training modules for accredited veterinarians. Since 2011, accredited veterinarians have completed more than 1 million hours of online training modules, and more than 40,000 modules completed at veterinary conferences nationwide.

Overall, base funding for the AHTS program currently supports salaries and benefits of personnel, contracts and agreements, and other normal operating costs such as travel, supplies, rent, and utilities necessary to conduct program activities.

a) An increase of \$503,000 for pay and employee costs.

This increase consists of \$503,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

(2) Aquatic Animal Health: An increase of \$2,625,000 and 7 FTE (\$5,000,000 and 18 FTE available in 2024).

The Aquatic Animal Health program protects the health and value of U.S. farm-raised aquatic animals and natural resources. The program supports commercial producers in domestic and international trade markets, valued at \$1.5 billion in 2018 (National Agricultural Statistics Service, 2018 Census of Aquaculture). The National Aquaculture Health Plan & Standards (NAHP&S), which includes a more comprehensive approach to aquatic livestock health management, monitoring, and certification, provides a framework for Federal policies and programs to address aquatic animal diseases for the benefit of aquaculture and aquatic animal resources. The NAHP&S affirms USDA as the lead Federal authority for U.S. aquaculture health, which is consistent with other livestock health programs. APHIS is working to codify uniform aquaculture health standards, entitled the Commercial Aquaculture Health Program Standards (CAHPS). This voluntary, non-regulatory certification program establishes a national, uniform approach for site-specific biosecurity, surveillance, and response plans. These plans are designed to prevent and control the dissemination of aquatic animal pathogens through animal movement and trade, especially those pathogens that are reportable to the World Organisation for Animal Health. Well-managed surveillance planning is the foundation for animal health activities that include disease control and eradication programs, support of emergency preparedness and response, and international trade.

APHIS received additional funding in the 2023 appropriation to support the implementation of NAHP&S and further develop CAHPS. The additional funds in 2023 enabled APHIS to host a meeting with State, industry, and aquatic laboratory officials to discuss and begin revising the 2024-2026 NAHP&S, which is set for publication in 2024. The Agency has developed an approach where aquaculture producers address biosecurity surveillance and other management practices that support aquatic health and allow these producers to compete in interstate and international trade. APHIS also used these funds to support an aquatic health and education campaign, as well as a cooperative agreement with Texas A&M AgriLife to develop an online aquatic health training program for producers, veterinarians, and the public.

In addition, APHIS initiated the rulemaking process to establish CAHPS as an official USDA aquatic animal health voluntary certification program that supports health and protects/expands domestic and international markets. The Agency supported the development of a field data collection application for CAHPS for inspections and training and funded several projects through cooperative agreements for aquatic health outreach and education to clarify aquatic disease statuses, surveillance, and biosecurity practices, and/or sector practices of the U.S. Aquaculture industry. This program also completed the development of foundational documents for the CAHPS, including program standards and education materials.

Overall, base funding for the Aquatic Animal Health program currently supports salaries and benefits, and other program operating costs such as travel, supplies, rent, and utilities necessary to conduct program activities.

a) An increase of \$60,000 for pay and employee costs.

This increase consists of \$60,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

b) An increase of \$2,565,000 and 7 FTE for the Aquatic Animal Health program.

APHIS is requesting additional funds to support the continued implementation of the NAHPS and the corresponding CAHPS. The U.S. aquaculture industry has changed significantly in the past decade, with plans to expand in future decades. To meet the growth and demand of the domestic aquaculture industry, APHIS believes CAHPS and NAHPS will support various business objectives, including improved health management, protection and expansion of aquaculture business opportunities, promotion and facilitation of domestic and international trade, and improved resource protection and environmental sustainability. These standards will also promote early disease detection and minimize the impacts of disease when they occur. The Agency received \$2.6 million in 2023, to support the initial development of the NAHPS and CAHPS and this increase would enable APHIS to continue building upon these efforts in 2025, with a focus on setting standards and conducting enforcement activities, ensuring the safe domestic and international movement of aquatic animals.

APHIS will use the requested funds to develop 2-3 additional aquatic animal pathogen entry pathways and/or domestic risk analyses to clarify the status of domestic aquaculture and help determine viability of appropriate import restrictions; develop a shellfish pathogen early detection system; and develop and evaluate of 5-10 additional aquatic animal diagnostic assays and protocols to support international and domestic animal movement and farmed aquaculture health. The Agency also plans to develop a data management pipeline for CAHPS data monitoring and reporting. In addition, APHIS would increase the number of personnel supporting the development and oversight of international aquatic trade and will train personnel to perform necessary import and export duties associated with the domestic and international movement of aquatic animals. These funds would also support disease modeling and surveillance, as well as field activities for CAHPS-related inspections, training, and education. The Agency is committed to initiating these standards by collaborating with State and industry partners. Without additional funding in 2025, APHIS would have difficulty adequately supporting the needs of a growing aquatic animal industry.

(3) Avian Health program: An increase of \$792,000 (\$64,930,000 and 238 FTE available in 2024).

The Avian Health program protects the U.S. poultry industry, while facilitating agricultural trade in poultry and poultry products. The production value of the U.S. poultry industry in 2022 was \$77 billion (USDA, National Agricultural Statistics Service), APHIS' Avian Health program consists of the surveillance, prevention, and control of avian diseases; disease threat planning and response; and international avian health activities. APHIS works to quickly detect and address endemic, emerging, and foreign disease threats to ensure that the U.S. poultry industry maintains worldwide competitiveness. To detect these threats, the Agency conducts surveillance in domestic poultry, wild birds, and the live bird marketing systems (LBMS). The LBMS is a voluntary network of U.S. live poultry markets and their production and distribution systems, which provides fresh poultry meat to consumers. Approximately 30 States have live bird markets that participate in the APHIS' H5/H7 avian influenza (AI) prevention and control program. State cooperators help conduct surveillance and diagnostic activities for the LBMS. When testing yields presumptive positive results, the Agency confirms the presence and strain of AI. LBMS testing prevents and controls AI in markets and among producers and distributors that supply those markets. In 2023, there were 34 detections of highly pathogenic avian influenza (HPAI) and one H7N3 detection of Low Pathogenicity Avian Influenza (LPAI) in the LBMS.

The National Poultry Improvement Plan (NPIP) is a cooperative Federal-State-industry program administered by APHIS that helps participants guard against disease incursion and enhance the marketability of their poultry and poultry products. This program includes the testing and monitoring of *Salmonella Pullorum*, *Salmonella Enteritidis*, *Salmonella Gallinarum*, *Mycoplasma gallisepticum*, *Mycoplasma synoviae*, *Mycoplasma meleagridis*, and H5/H7 strains of AI. APHIS conducts AI surveillance in commercial poultry under the NPIP H5/H7 AI Prevention and Control program. Most of the testing is performed locally, but the Agency's National Veterinary Services Laboratories provides reagents for testing and performs confirmation and identification testing of presumptive positive specimens. Each year, APHIS performs approximately 1.6 million AI surveillance tests through NPIP AI cooperative agreements. Based on tests results available as of September 30, 2023, there was no detection of H5/H7 LPAI virus in the U.S. commercial poultry flocks in 2023.

APHIS manages the NPIP U.S. Poultry Primary Breeder AI Compartmentalization program, which audits and certifies pedigree poultry stock breeding companies that practice high-level biosecurity measures to keep their flocks AI-free. Compartmentalization defines the health status of a subpopulation of animals by common biosecurity and management principles rather than a shared geographic boundary. The voluntary program supports the trade of poultry and poultry products if the United States encounters an AI outbreak. Participating breeders must meet extensive biosecurity, personnel training, disease monitoring, and laboratory infrastructure requirements. APHIS administers the program and serves as the regulatory authority that international trading partners can trust to verify that a participant meets the requirements.

AI circulates in waterfowl and shorebirds causing little to no disease, which allows the viruses to move efficiently along migratory flyways in these birds. These viruses can infect domestic land-based poultry such as chickens and turkeys. When poultry are infected with H5 or H7 strains of AI virus, the virus can evolve into the more serious disease-causing form, highly pathogenic AI (HPAI). HPAI usually causes significant disease and mortality in domestic poultry and sometimes in wild birds. APHIS conducts wild bird surveillance to gain insight into AI viruses in wild populations, and to provide that data to poultry producers and others so they can make informed biosecurity and management decisions. In 2023, the Agency coordinated the collection and laboratory analysis of more than 31,000 wild bird samples from wild waterfowl in priority watersheds in all four flyways. The first HPAI detection in the United States was from a wild bird sampled as part of this surveillance effort and served as an early warning system as designed.

Internationally, APHIS facilitates agricultural trade, works with agricultural officials, monitors agricultural health, and supports efforts in sanitary and phytosanitary standard-setting. The Agency works with animal health counterparts to reduce the impact of AI in trade by promoting transparent communications; clarifying animal disease status; and - when markets close - providing relevant data to reopen them and minimizing trade disruption of these products. In addition, APHIS works 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. Further, APHIS coordinates with the World Organisation for Animal Health and other international organizations to assist with disease prevention, management, and eradication activities in HPAI-affected regions. In addition, APHIS sponsors and staffs the Emergency Management Center at the Food and Agriculture Organization of the United Nations in Rome, Italy. This Center provides assessments, guidance,

and resources to enable rapid response to animal disease outbreaks in countries where the United States would have difficulties placing personnel or responding bilaterally. This approach reduces the threat of disease outbreaks becoming widespread and evolving into pandemics. The Agency works closely with counterparts in Canada and Mexico to address avian disease threats affecting North America. APHIS also delivers capacity-building activities focused on biosecurity, poultry disease diagnostics, quality assurance in the laboratory, and poultry and wildlife surveillance.

Overall, base funding currently for the Avian Health program supports salaries and benefits, cooperative agreements and programmatic contracts, and other normal operating costs such as travel, supplies, rent, and utilities to conduct program activities.

a) An increase of \$792,000 for pay and employee costs.

This increase consists of \$792,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

b) A one-time decrease of \$8,500,000 and 0 FTE in prior-year Avian Health funds.

The Agency is proposing a one-time reduction in carryover funding for the Avian Health line item to achieve the targeted funding level. APHIS will continue to rely on base funding to support the U.S. poultry industry. This proposal would temporarily reduce the Agency's flexibility when responding to avian disease detection; however, APHIS has increased its ability to mobilize emergency responders, reduced its initial spending needs during an outbreak, and can request emergency funding, if needed.

(4) Cattle Health program: A increase of \$295,000 (\$111,771,000 and 493 FTE available in 2024).

The Cattle Health program protects and improves the quality, productivity, and economic viability of the U.S. cattle and dairy industries, valued at \$119 billion in 2022 (USDA, National Agricultural Statistics Service). The Cattle Health program has two major goals: to rapidly detect and respond to diseases that could significantly affect the U.S. cattle and bison population and prevent the spread of any newly detected disease in the United States as well as endemic domestic cattle and bison diseases of concern. The Cattle Health program conducts activities related to surveillance and monitoring, disease prevention, disease investigation, and outbreak response actions. In addition, APHIS maintains regulations, national program standards, and guidelines that direct cattle health activities at Federal, State, Tribal, and local levels. Establishing and maintaining these standards is critical to supporting interstate and international commerce by providing assurances about the health of cattle or bison being moved or traded.

In 2023, APHIS continued to conduct surveillance for foreign, emerging, and endemic diseases, including bovine tuberculosis (TB), brucellosis, and bovine spongiform encephalopathy (BSE) as well as disease vectors, such as the cattle fever tick (CFT), and New World screwworm (NWS). The Agency conducts surveillance through cattle testing on-farm as well as slaughter facilities, livestock markets, shows, sales, buying stations (first-point testing), and rendering facilities (operations that collect dead, dying, disabled, and diseased animals). APHIS also works with Canada and Mexico to exclude foot-and-mouth disease, NWS, and other cattle diseases.

APHIS' surveillance activities for bovine TB includes testing live cattle and using slaughter surveillance data from the USDA's Food Safety and Inspection Service. Since the bovine TB program began in 1917, it has significantly decreased the prevalence of the disease in U.S. livestock. Today, the prevalence rate in cattle herds is less than 0.001 percent. APHIS addresses affected herds with a mix of depopulation and test-and-removal strategies that consider herd size, potential indemnity costs, State and owner preferences, genetics, and the probability of removing infection. In 2023, approximately 121 Federally inspected slaughter establishments submitted 5,601 samples to APHIS for TB testing.

Bovine brucellosis is an infectious disease that can cause decreased milk production, weight loss, abortions, infertility, and lameness. These effects can negatively impact the livelihood of cattle producers and the supply of meat and dairy products. Federal and State eradication efforts have resulted in all 50 States, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands being Class-Free since July 2009. APHIS works with States to implement brucellosis management plans to mitigate the risks imposed by brucellosis found in wildlife populations. Although the United States is considered Class-Free of brucellosis, the disease remains in free-

ranging bison and wild elk in the Designated Surveillance Area (DSA), which includes parts of Idaho, Montana, and Wyoming. To help manage brucellosis in this area, APHIS provides expertise to land and wildlife management agencies in the DSA. Under the market cattle identification national slaughter surveillance program, APHIS partners with States to test cattle and domestic bison on farms and ranches before movement, private sale, and herd certification issuance for show and exhibition purposes. In 2023, the program tested approximately 231,000 cattle and vaccinated over 1.1 million calves and 2,900 adult cattle for brucellosis. The number of certified-free herds is steadily declining since all States are considered Class-Free of brucellosis.

BSE, widely referred to as “mad cow disease,” is a progressive, fatal neurologic cattle disease which is primarily spread through contaminated feed. BSE detections are separated into 2 distinct categories, classical and atypical. Classical BSE occurs through the consumption of contaminated feed. Atypical BSE refers to naturally and sporadically occurring forms, which are believed to occur in all bovine populations at a very low rate, and which have only been identified in older bovines when conducting surveillance. The World Organisation for Animal Health evaluates countries that submit disease freedom requests and established official recognition of sanitary risk status through a transparent, science-based and impartial procedure. This system uses points to ensure the BSE surveillance programs obtain quality samples from targeted populations rather than the entire adult cattle population. The system also incorporates a country’s BSE history, cattle feed regulations, and surveillance practices. APHIS samples approximately 25,000 animals each year and targets cattle populations where the disease is most likely to be found. The targeted population for ongoing surveillance focuses on cattle exhibiting signs of central nervous disorders or any other signs that may be associated with BSE, including cattle that cannot walk, are low weight, injured, or dead. No cases of classical BSE were detected in 2023; however, an atypical BSE case was detected at slaughter as part of the BSE surveillance program. An epidemiologic investigation was conducted in accordance with the BSE Response Plan.

APHIS partners with the Texas Animal Health Commission (TAHC) to carry out the Federal-State CFT Eradication Program. CFT spreads the disease babesiosis, also known as cattle fever. The Agency controls the spread of tick species that transmit the infectious agent by inspecting livestock before they leave quarantined areas, conducting surveillance at local markets, inspecting hunter-killed white-tailed deer and other exotic ungulates, and conducting horseback river trail patrols to capture stray and smuggled Mexican livestock who may carry ticks into the United States. APHIS, with cooperation from the TAHC, maintains a permanent quarantine zone between Texas and Mexico to prevent CFT from spreading into the United States. Bordering Mexican states harbor tick species, which carry the disease, where tick-infested wildlife or livestock near the border can bring the ticks into the United States. Tick eradication activities consist of identifying and quarantining infested premises and treating livestock and wildlife. Approved treatment methods include dipping or spraying cattle with coumaphos, feeding ivermectin-treated corn to deer found in wildlife; and injecting cattle with Doramectin. To release a quarantine area, every infested premise must have all cattle treated for nine months, including inspections and treatments every two weeks. In 2023, APHIS conducted 76,522 individual livestock inspections and treatments throughout South Texas.

Carrizo cane is an invasive grass that grows along the Rio Grande River in Texas. The cane makes for a particularly favorable habitat for CFT which reside in the vegetation waiting for animals to brush by so they can attach. APHIS began efforts along the border to control carrizo cane in 2020. The standard approach for keeping carrizo cane under control is to cut it down to three feet twice a year using a mechanical cutter bar mounted on a tractor, a process referred to as “topping”. In 2023, APHIS worked with contractors to aid in the eradication of the invasive cane and increase river visibility by successfully topping approximately 140 miles of land area, primarily alongside river trails used by CFT inspectors.

APHIS and cooperators have eradicated the New World screwworm (NWS) from the United States, Mexico, Belize, portions of the Caribbean, and down through Central America to the southern-most portion of Panama. APHIS prevents the reestablishment of NWS in the United States by collaborating with Panama and Colombia to maintain a biological barrier zone in the Darien Gap, along the Colombia/Panama border. The program relies on a sterile insect technique, a process where APHIS and cooperators produce and sterilize insects at a jointly managed facility in Panama and release them in the barrier zone to mate with wild insects, thereby preventing reproduction. The United States also has access to the sterile flies in the event of an outbreak in U.S. territory. APHIS produces approximately 20 million sterile flies per week at its Panama rearing facility for routine operations and has the capacity to produce additional sterile insects for emergencies.

Overall, base funding for the Cattle Health Program currently supports salaries and benefits, cooperative and programmatic contracts, and other normal operating costs such as travel, supplies, rent, and utilities to conduct program activities.

- a) An increase of \$1,641,000 for pay and employee costs.

This increase consists of \$1,641,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

- b) A decrease of \$4,949,000 and 0 FTE for the cattle fever tick eradication program.

APHIS is proposing to eliminate mechanical control activities that reduce non-native carrizo cane from the banks of the Rio Grande River. Carrizo cane is a tall, perennial grass that provides a favorable habitat to harbor CFT. The standard approach for keeping carrizo cane under control is to cut it down to three feet twice a year using a mechanical cutter bar mounted on a tractor, a process referred to as “topping”. At the proposed funding level, APHIS will focus on proven effective CFT mitigation activities that reduce spread from within the permanent quarantine zone. These activities include employing mounted patrol inspectors to survey and apprehend stray and unauthorized animals crossing the southern border; treating cattle located in the permanent quarantine zone with coumaphos to reduce CFT from livestock populations; treating wildlife with an anti-parasitic drug to reduce CFT spread from infested premises; and constructing high game fencing to prevent wildlife from spreading CFT from one premise to another.

- c) An increase of \$3,500,000 and 0 FTE for New World Screwworm.

APHIS and Panama’s Ministry of Agriculture jointly manage the Commission for the Eradication and Prevention of Screwworms (COPEG) which produces, sterilizes, and disperses sterile NWS flies weekly over a portion of Eastern Panama and into Colombia, preventing movement of NWS from South America where it is endemic, to Central and North America, where USDA progressively worked over several decades to eradicate this pest. The program also maintains capabilities to respond with technical expertise, biological material (sterile insects) and other equipment necessary to rapidly respond to an outbreak in an NWS-free country, including the United States.

APHIS requests an increase to address three factors driving cost increases in the program:

- 1) Aging infrastructure. COPEG operates the only sterile NWS mass rearing facility in the world. The NWS production facility was completed in 2006, and the core infrastructure needs continual maintenance to prevent breakdowns that affect sterile insect production. These needs include updates to the electrical, ventilation, and water treatment systems at the facility.
- 2) Operational cost increases. The cost of insect diet ingredients has increased by 20 percent over the last several years, and, on average, costs for supplies, materials, and equipment (including transportation) have increased by over 15 percent.
- 3) Increased risks posed by the growing presence of people and cattle in the barrier zone. The Darien Region of Panama, which is densely forested, difficult-to-access terrain, was sparsely populated for much of the past decades. However, recent development of infrastructure in the region has led to an increase in livestock production and associated NWS cases in the COPEG work areas. In 2023, the program began addressing an outbreak with significant numbers of NWS cases detected in multiple regions of Panama and in Costa Rica. To address the emergency, the program is increasing sterile insect production and release significantly and increasing surveillance and inspections of animals. APHIS, COPEG, and other regional cooperators will continue emergency operations for several years to contain the outbreak. However, once the outbreak is contained, the program will need to continue enhanced activities in the barrier zone due to the development of infrastructure and farms in the area. This will include a higher level of sterile insect release, surveillance and animal health inspections, and outreach and education campaigns. The program will need to continue these enhanced activities in 2025 and beyond to ensure the pest does not regain a foothold in Central America.

Without the additional funding, APHIS will not be able to continue the higher levels of field work and maintain the production facility, jeopardizing both sterile insect production and the program’s ability to detect and address outbreaks in the barrier zone. If the NWS program failed, the pest would spread to pest-

free areas and ultimately reach the United States, either naturally or through the movement of people and goods. The United States had gone 30 years without an infestation when NWS was detected on endangered Key deer living in the National Key Deer Refuge in October 2016. COPEG was critical to the eradication of NWS from the Florida Keys; the COPEG facility produced and shipped more than 40 million sterile NWS to combat the outbreak. By March 2017, six months after the detection, USDA announced the successful eradication of NWS from Florida. This outbreak had a \$3.1 million cost, which could have been larger if it spread to agricultural production areas. Without the sterile insects and expertise provided by COPEG, the response would have lasted longer and could have caused significant economic impacts. APHIS estimates that this investment saves \$2.3 billion annually (APHIS internal analysis) for the cattle industries of the United States and other NWS free areas, and contributes to the financial security of related agricultural industries, animals health and welfare, and food security in the region. With the increase, the program will continue to maintain the barrier and produce enough high-quality sterile NWS flies for eradication efforts should an outbreak occur in the United States.

- d) An increase of \$103,000 and 0 FTE for rising overseas operational costs related to New World Screwworm.

APHIS is requesting \$103,000 to support increases in International Cooperative Administrative Support Services (ICASS) charges from the U.S. State Department and pay for locally employed staff. Without this funding, the Agency will continue to absorb these increased costs every year which will further erode efforts to keep NWS from spreading into the biological barrier zone and into North America.

- (5) Equine, Cervid, and Small Ruminant Health program: A decrease of \$12,114,000 (\$35,319,000 and 116 FTE available in 2024).

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, surveillance, investigation, response, and disease prevention and preparedness to address animal health issues. The Agency's monitoring and surveillance activities detect foreign, emerging, zoonotic, and domestic diseases that could substantially impact the economy. APHIS also works with domestic and international trading partners to facilitate safe trade in equine, cervids, and small ruminants and their products, and ensure that diseases of trade concern are reported to the World Organisation for Animal Health when detected. The ECSRH program conducts disease surveillance and monitoring activities for the following diseases: bovine tuberculosis (TB), chronic wasting disease (CWD), vesicular stomatitis virus, contagious equine metritis, equine infectious anemia, equine piroplasmiasis, Eastern equine encephalitis, West Nile virus, and scrapie.

Scrapie is a fatal, degenerative disease affecting the central nervous system of sheep and goats. Infected flocks can experience significant production losses. The National Scrapie Eradication Program focuses on improving the health of domestic sheep and goats, reducing scrapie-associated economic losses, and increasing international marketing opportunities. Regulatory scrapie slaughter surveillance efforts, which began in 2003, were designed to identify scrapie-infected flocks and herds by sampling animals at slaughter. Since the surveillance program began, the program has collected 745,000 samples at slaughter.

APHIS works with State agencies to encourage cervid owners to certify their herds by meeting the requirements in the CWD Herd Certification Program (HCP) Standards. APHIS' voluntary national CWD HCP helps States, Tribes, and the cervid industry control CWD in farmed cervids by allowing the interstate movement only from certified herds. Currently, 28 States participate in the national CWD HCP. APHIS determines the use of Federal indemnity payments within the CWD program on a case-by-case basis. APHIS also coordinates a voluntary cervid TB herd accreditation program.

In 2023, APHIS made approximately \$12.3 million available for cooperative agreements with States and Tribal governments to further develop and implement CWD surveillance, testing, management, and response activities, including the further development and evaluation of techniques and strategies to prevent or control CWD in farmed and wild cervid populations. APHIS funded cooperative agreements with 22 States, 15 universities, and 11 Tribes and Tribal Organizations for CWD projects in 2023.

APHIS collaborates with Federal, State, and industry partners to protect the equine industry from disease,

improve the health of our domestic herd, and protect human health. These activities improve trade and facilitate equine movement, which are vital to maintaining the industry's economic value. APHIS also provides veterinary support and consultation to the U.S. Department of the Interior's Bureau of Land Management Wild Horse and Burro Program through an interagency cooperative agreement. APHIS coordinates with States and industry to develop national disease control strategies, and provide oversight, coordination, and implementation of appropriate policies to mitigate the risks posed by equine diseases of concern. APHIS provides expertise and helps develop the equine industry's National Equine Health Plan. This plan functions as a roadmap for owners, veterinarians, and industry organizations to coordinate with State and Federal animal health officials to recognize, prevent, control, and respond to equine diseases.

Overall, base funding for the ECSRH program currently supports salaries and benefits, contracts and agreements, equipment, and other normal operating costs such as supplies, rent, and travel to conduct program activities.

a) An increase of \$386,000 for pay and employee costs.

This increase consists of \$386,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

b) A decrease of \$12,500,000 and 0 FTE for chronic wasting disease projects.

APHIS has received funding in recent years to support projects at the State level to further develop and implement CWD surveillance, testing, management, and response activities, including further development and evaluation of techniques and strategies to prevent or control CWD in wild and farmed cervids. APHIS is proposing to eliminate funding for these State CWD projects. APHIS will use the information gathered from previously funded projects to improve the prevention or control of the disease spread in wild and farmed cervid populations. At the proposed funding level, APHIS would continue to maintain the voluntary HCP and other activities required for the movement of cervids and would continue to support research efforts for CWD funded within the Agency's Wildlife Services Methods Development line item.

(6) National Veterinary Stockpile: An increase of \$20,000 (\$6,500,000 and 6 FTE available in 2024).

The National Veterinary Stockpile (NVS), overseen by APHIS' Field Operations Logistics Center, serves as the primary source of materials, supplies, and equipment for the response to, control of, and containment of significant animal disease outbreaks. The NVS has two primary objectives: to deploy countermeasures, within 24 hours of approval, against the most damaging animal diseases including highly pathogenic avian influenza, foot-and-mouth disease (FMD), virulent Newcastle disease, African swine fever, and classical swine fever; and, to assist States, Tribes, and Territories with planning, training, and exercises for the rapid request, receipt, processing, and distribution of NVS countermeasures during an event. The NVS works with States, tribes, and territories to develop their logistics plans, conduct logistics training, and organize full-scale logistics exercises.

NVS continuously evaluates its inventory of supplies and replaces expired inventory. To maximize cost-efficiency and response capabilities, NVS personnel work with industry modelers and academic institutions to develop a scientifically estimated quantity of supplies to stockpile for each disease on APHIS' high-consequence diseases list. These personnel gather input from Federal agencies on strategies such as commercially available countermeasures including vaccines, criteria for deploying countermeasures, and ways to leverage stockpiles. The program continues to maintain its capabilities to address high consequence animal diseases, manage inventories, and develop ways to best address the Agency's response capabilities by quickly deploying animal health response resources. The NVS also acquires equipment to assist in animal disposal and makes necessary upgrades to existing equipment for animal depopulation efforts during an event.

APHIS uses a portion of the NVS funding to maintain the North American FMD Vaccine Bank (NAFMDVB) as part of the animal health readiness initiative. The NAFMDVB is a vaccine stockpile that APHIS and Canada support cooperatively. Each country contributes funding to acquire and maintain a stockpile of vaccine concentrate, from which FMD vaccine is derived. The United States and Canada will continue to ensure that the NAFMDVB maintains adequate stocks of vaccine concentrate and conducts necessary quality assurance testing. Without NVS' efforts, disease outbreak response efforts would quickly deplete State resources and overwhelm industry, leading to larger and more serious animal disease outbreaks.

Overall, base funding for the NVS program currently supports salaries and benefits, supplies, and contracts and agreements, as well as other normal operating costs like rent, travel, and equipment to conduct program activities.

- a) An increase of \$20,000 for pay and employee costs.

This increase consists of \$20,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

(7) Swine Health program: An increase of \$4,723,000 and 5 FTE (\$26,044,000 and 142 FTE available in 2024).

APHIS' Swine Health program protects the health and improves the quality, productivity, and economic viability of the swine industry. The 2022 production value of the swine industry was approximately \$30 billion (USDA, National Agricultural Statistics Service). In addition, the program facilitates trade in swine and pork products, and addresses swine health issues at the human-swine interface and between wildlife and domestic swine. APHIS activities include comprehensive and integrated swine surveillance, emergency preparedness and response planning, disease investigation and control activities, zoonotic disease prevention and response, swine health studies and special projects, collaborations on emerging issues, and communication with stakeholders. In addition, the Agency maintains regulatory and programmatic guidelines that direct activities at the Federal, State, and Tribal levels. Establishing and maintaining national standards support interstate and international commerce by ensuring the health of animals and products being moved or traded.

APHIS collects swine samples from various surveillance streams as part of a comprehensive integrated surveillance approach to detect swine diseases that could substantially affect domestic producers and the national economy. Comprehensive integrated surveillance includes field work and epidemiological investigations, designated surveillance streams, a veterinary diagnostic laboratory infrastructure, data management systems, and methodologies for data analysis and reporting. APHIS collects samples and data from veterinary diagnostic laboratories, slaughter plants, high-risk producer premises, livestock markets, and feral swine during population elimination projects. Surveillance testing supports the swine industry by assuring trading partners and other stakeholders of the status of swine diseases. Comprehensive surveillance enables APHIS to maintain effective surveillance using a risk-based approach that targets high-risk samples and reduces costs.

In 2023, APHIS continued funding a pilot project with Iowa State University to develop and demonstrate the U.S. Swine Health Improvement Plan (SHIP) modelled after the National Poultry Improvement Plan (NPPI). Its objective is to develop a certification program for high-consequence swine diseases. The pilot provides a framework to further safeguard the swine industry by ensuring active nationwide surveillance and the ability to quickly regionalize and quarantine infected areas. The framework enables APHIS to assure trading partners about the status of these diseases and the health of unaffected areas. U.S. pork producers and packing facilities in participating States that meet specified requirements can voluntarily enroll in the program. APHIS plans to expand the pilot to a permanent, sustainable program. In 2023, APHIS oversaw the expanded implementation of the project which included: standing up additional Official State Agencies and further increasing the enrollment of swine premises; continuing to draft program standards and resolutions in areas such as sampling and diagnostics, traceability, and biosecurity; and hosting the annual House of Delegates (a forum of industry stakeholders) meeting in September 2023. When fully established, the SHIP will be a collaborative effort involving State, industry, and Federal partners and provide standards for certifying the health status of swine across participating farm sites, supply chains, States, and regions. It will be a key part of APHIS' national plan to safeguard U.S. pork production from African swine fever (ASF) and other diseases, and it will support industry leadership on sustainable solutions to ASF preparedness and prevention. Producer participation will enhance biosecurity and traceability practices that will bolster APHIS' ability to control disease and return to productivity and marketability in the event of an ASF incursion in its swine sector. The program will eventually have the potential to reduce trade impacting disease-related market risks; establish an officially recognized program for monitoring foreign diseases that can support and sustain interstate and export commerce in an outbreak; facilitate larger efforts to mitigate the impact of recurring endemic diseases of high consequence; and garner feedback in an officially recognized forum to inform Federal and State programs, planning, and activities. As of September 30, 2023, 60 percent of the U.S. Swine Inventory was enrolled in the pilot. APHIS expects to increase this percentage to 70 in 2025.

For several years, APHIS has closely followed African swine fever (ASF), a highly contagious and deadly viral disease of domestic and wild pigs. Currently, the only effective control strategy is to depopulate all affected or exposed swine herds. Early detection is the key to controlling, containing, and eliminating ASF. While ASF has never been found in the United States and does not threaten public health, an introduction would devastate U.S. pork producers, their communities, and the economy. APHIS has instituted a series of interlocking safeguards to prevent ASF from entering the United States and is working with States and industry to develop and refine plans in case of an outbreak. If ASF enters the U.S swine population, enhanced surveillance and diagnostic testing strategies will be critical to facilitate progressive response and eradication. In August 2023, APHIS hosted the 2023 North American ASF Forum for national and international government officials, State animal health officials, and swine industry representatives. The forum was the third in a series of meetings among the United States, Canada, and Mexico to focus on trilateral coordination to prevent ASF introduction into North America while planning and preparing for an introduction. Key issues discussed at the Forum included regionalization evaluation, the U.S Protection Zone, depopulation and disposal, surveillance and laboratory capacity, traceability during an outbreak, and feral swine response during an outbreak.

APHIS tests for pseudorabies virus (PRV) and swine brucellosis (SBR). Testing continues to confirm that all commercial swine herds are free from PRV and SBR, although these diseases continue to be found in non-commercial herds after exposure to feral swine. In all test-positive cases, APHIS and States investigate and quarantine infected herds, conduct outbreak testing to determine herd disease levels, and depopulate or remove infected animals through a test-and-removal strategy to eliminate disease risk from these herds. These efforts protect commercial herds that may be exposed to infected backyard herds.

APHIS also performs foreign animal disease (FAD) investigations in swine. Approximately 90 percent of these investigations in recent years have been for vesicular diseases, such as foot-and-mouth disease (FMD). Investigations for swine hemorrhagic FADs continue to increase significantly, particularly in Puerto Rico, due to the ASF outbreak in the Dominican Republic and Haiti. The Agency also conducts an ASF/CSF combined hemorrhagic fever surveillance program. CSF remains eradicated from the United States.

Swine can harbor several zoonotic disease agents, such as swine influenza (IAV-S), and SB. In such cases, State public health and animal health officials conduct investigations and may request support from APHIS and the Centers for Disease Control and Prevention (CDC). Joint animal health and public health investigations support the One Health concept and strengthen APHIS' ability to respond when both animal and human health might be compromised.

APHIS has the responsibility under the Swine Health Protection Act (SHPA) to license and inspect swine production facilities that feed cooked garbage to swine, and to conduct searches for unlicensed facilities that may illegally feed raw garbage to swine. In addition, the SHPA authorizes States to have primary enforcement responsibility, which provides authority to regulate the feeding of garbage to swine. If a State fails to meet SHPA enforcement requirements, APHIS may assume the responsibility in the State. Feeding untreated or improperly treated garbage could transmit infectious diseases such as ASF, FMD, or CSF to swine. By ensuring that food waste fed to swine does not threaten domestic swine, APHIS protects the commerce, health, and welfare of U.S. citizens.

The program has the expertise and infrastructure to work with the swine industry, universities, and Federal and State partners to collect, analyze, and disseminate vital swine health information to those who might take action. The program continues to develop and maintain swine surveillance protocols to assure the availability of safe and plentiful swine and swine products.

Overall, base funding for the Swine Health program currently supports salaries and benefits, contracts, and agreements, as well as other normal operating costs such as travel, supplies, and rent, and utilities.

- a) An increase of \$473,000 for pay and employee costs.

This increase consists of \$473,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

b) An increase of \$4,250,000 and 5 FTE to establish the official Swine Health Improvement Plan program.

APHIS requests funding to establish a SHIP program. The SHIP will be a collaborative effort involving State and Federal partners and provide standards for certifying the health status of swine across participating farm sites, supply chains, States, and regions. The program will be modelled after the Agency's NPIP, a collaborative effort involving industry, State, and Federal partners providing standards for certifying the health status of greater than 99 percent of commercial scale poultry and egg operations across the United States. A 2018 case study funded by the Swine Health Information Center indicated that this approach could yield similar benefits for the swine industry as the poultry industry has garnered from NPIP. These benefits include the potential to reduce trade impacting disease-related market risks, establish an officially recognized program for monitoring for foreign diseases that can support and sustain interstate and export commerce in an outbreak, facilitate larger-scale efforts to mitigate the impact of recurring endemic diseases of high consequence, and garner feedback in an officially recognized forum to inform Federal and State programs, planning, and activities. This program will support the health assurance needs of the U.S. pork industry.

APHIS' establishment of the SHIP program will follow an Agency-sponsored pilot project to develop a certification program for high-consequence swine diseases. The pilot provides a framework to further safeguard the swine industry by ensuring active and effective nationwide surveillance and the ability to quickly regionalize and quarantine infected areas. It enables the Agency to assure trading partners and consumers about the status of these diseases and the health of unaffected areas. U.S. pork producers and packing facilities in participating States that meet specified requirements can voluntarily enroll in the program. The pilot project team developed a system of enrolled farm sites and packing facilities that meet well-defined biosecurity standards. The team also developed traceability testing requirements for participating States. The operations established through the pilot will serve as the foundation for a sustainable SHIP program. With the additional funding, APHIS will participate in SHIP technical advisory committees, and provide guidance and resources to transition to an officially recognized USDA Swine Health Program to safeguard, certify, and improve the health of U.S. swine and the long-term competitiveness of the U.S. pork industry.

APHIS will report on a new Key Performance Indicator starting in 2025, to track the progress of the SHIP program. Specifically, APHIS aims to achieve 90 percent enrollment of commercial scale operations into the SHIP program within 10 years. This is similar growth to what was seen with the National Poultry Improvement Plan, upon which SHIP is modeled. The Agency's goal is to add an average 5 percent participation every year, starting at a baseline of about 40 percent of operations currently enrolled in the SHIP pilot.

(8) Veterinary Biologics program: An increase of \$419,000 (\$21,479,000 and 126 FTE available in 2024).

APHIS' Center for Veterinary Biologics (CVB) regulates veterinary biological products under the Virus-Serum-Toxin Act to ensure that these products are pure, safe, potent, and effective. Organizations develop these products, which include vaccines, bacterins, antisera, diagnostic test kits, and analogous products to prevent, diagnose, and treat animal diseases in a wide variety of animal species. The CVB develops regulations concerning the production and licensing of veterinary biologics, evaluates pre-licensing dossiers and issuance of licenses and permits, tests products submitted for licensure, inspects facilities and products, approves product certifications, investigates non-compliance, and conducts post-marketing surveillance to ensure that manufacturers comply with relevant regulations and policies. 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, available for U.S. export markets, and play an essential role in protecting animal health and agriculture. The Center continues to ensure an effective, efficient, and responsive veterinary biologics program that can provide timely approvals and availability of veterinary vaccines, diagnostics, and other novel biologics to protect animal and public health and enhance export opportunities for U.S. veterinary biologics companies. APHIS continues implementing the single-tier labeling rule, which changes the efficacy descriptions for biologics to a single, uniform label claim. This simpler format better communicates product performance, saves time and money for the manufacturer, and aligns U.S. labeling with international markets.

APHIS licenses and inspects facilities to ensure that all veterinary biological products produced and distributed within, imported into, or exported from the United States are of the highest quality, and are not worthless,

contaminated, dangerous, or harmful. All countries require import and export certificates to certify that products are prepared in accordance with the Virus-Serum-Toxin Act. In 2023, APHIS reviewed/processed all export certificates within 4 days (the average was 1.8 days), and all certificates of licensing and inspection within 28 days (the average was 20 days). Timely processing helps ensure that markets are accessible for manufacturers who export their product. APHIS also helped ensure that there were no FAD events related to the importation of more than 513 million doses of biologic products, a 17 percent increase from 2022. To reduce regulatory burden, CVB has expedited turnaround times, streamlined required information collection under specific circumstances, and implemented electronic submissions for most required regulatory submissions. Each year, APHIS inspects an average of 50 biologics facilities to assure regulatory compliance.

APHIS' National Centers for Animal Health (NCAH) Portal allows real-time communication and data exchange between APHIS and biologics manufacturers, reducing the time and costs for application review. The Agency continued to enhance the Portal for more comprehensive electronic submissions and two-way data exchange. By the end of 2023, 96 percent of licensed firms and permittees were using the Portal. This resulted in CVB receiving 99 percent of marketing documents, 91 percent of biographical summaries, 84 percent of licensing correspondence, and 57 percent of inspection and compliance correspondence through the Portal. In 2023, the Portal received 91 percent of export certificates and 98 percent of facility documents. Import permits submitted electronically represented 100 percent of Research and Evaluation Permits, 100 percent of Transit Permits, and 76 percent of Sales and Distribution Permits. Overall, 95 percent of 2023 CVB submissions were received through the Portal. In total, CVB received 57,443 submissions from the Portal in 2023, a 57 percent increase from 2022.

APHIS promotes U.S. policy for the oversight of biologics as a regulatory model for established and developing markets, and it improves the worldwide marketability of USDA-licensed biologics. In 2023, APHIS provided expertise and training at the Institute for International Cooperation in Animal Biologics. These programs were designed to educate domestic and international 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 worldwide marketability of USDA-licensed biologics.

Overall, base funding for the Veterinary Biologics program currently supports salaries and benefits of personnel, and contracts and agreements, as well as normal operating costs such as supplies, travel, rent, and utilities to conduct program activities.

a) An increase of \$419,000 for pay and employee costs.

This increase consists of \$419,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

(9) Veterinary Diagnostics: An increase of \$652,000 (\$63,777,000 and 196 FTE available in 2024).

Laboratory and diagnostic services are essential components of the U.S. animal health infrastructure. The Veterinary Diagnostics line item supports efforts to stand up the National Bio and Agro-Defense Facility (NBAF) in Manhattan, Kansas which will help protect the nation's agriculture, farmers, and citizens against the potential threat and effects of serious foreign and zoonotic animal diseases. This line item also supports the National Veterinary Services Laboratories (NVSL), which consists of laboratories in Ames, Iowa and Plum Island, New York, and NVSL's satellite African swine fever (ASF) testing laboratory in Dorado, Puerto Rico. The NVSL is recognized by the World Organisation for Animal Health (WOAH) and the Food and Agriculture Organization as an international reference laboratory for significant animal diseases such as highly pathogenic avian influenza, foot-and-mouth disease (FMD), and rinderpest. NVSL currently maintains WOAH reference laboratory status for 14 diseases of veterinary significance. It provides diagnostic test services ranging from a single laboratory test to comprehensive laboratory services covering many pathogens for suspected outbreaks of domestic and foreign animal diseases (FADs). The line item also supports the National Animal Health Laboratory Network (NAHLN), which is an animal disease surveillance and monitoring system that interconnects Federal and State laboratory resources to improve the security of the nation's livestock by providing disease diagnostics both daily and at increased levels during outbreaks.

USDA, in collaboration with the Department of Homeland Security (DHS), hosted the NBAF dedication and ribbon cutting ceremony in May of 2023. The following month, the first of five phases of scientific standup

officially began. In August 2023, the first scientific activities within NBAF laboratory spaces began with sequencing, histology, and cell culture on very low-risk, non-infectious materials. APHIS and USDA's Agricultural Research Service (ARS) have responsibilities for their own science programs and joint responsibilities over the facility's operations. The mission transfer from PIADC is planned over the next couple of years. USDA will maintain a strategic partnership with DHS to ensure that NBAF and other laboratories protect the nation's food supply, agriculture economy, and public health. APHIS and ARS continue to develop a workforce of subject matter experts in foreign, emerging, and zoonotic diseases to conduct diagnostics.

Diagnostic testing and confirmation of surveillance samples improves the security of the nation's livestock. NVSL is often on the forefront of emerging and re-emerging diseases of concern including ASF, virulent Newcastle disease virus, tilapia lake virus, infectious hypodermal and hematopoietic necrosis virus, Senecavirus A, bluetongue, vesicular stomatitis virus, and rabbit hemorrhagic virus. NVSL maintains a web-based portal for entering sample information to minimize the manual re-entry of this information. In 2023, the laboratories produced and shipped approximately 88,000 reagent order items representing approximately 579 product types. Many of these products are only available to stakeholders through APHIS.

APHIS conducts proficiency testing of Federal, State, and university-sponsored laboratories when these laboratories perform authorized diagnostic testing as part of APHIS-approved surveillance and/or response programs. This is done to ensure that they use standardized, rapid diagnostic techniques and to maintain the credibility of U.S. diagnostic test results in the international marketplace. In 2023, APHIS made 34 types of proficiency panels available to international, Federal, State, and private laboratories within and outside the NAHLN network. APHIS made the necessary controls and reference strains available for approximately 200 diseases to help other laboratories develop and validate diagnostic tests. User fees cover the cost of some reagents and proficiency panels.

The Veterinary Diagnostics program also provides support for the NAHLN, which is a vital early warning system for foreign and emerging animal diseases. This support includes limited infrastructure in NAHLN laboratories; program staff; the APHIS Laboratory Portal, which provides a secure means of communication for NAHLN laboratories and proficiency test management for NAHLN and non-NAHLN APHIS-approved laboratories; personnel to provide information management system support for electronic messaging; and online quality management training the NAHLN laboratories use to maintain qualifications for participating in the network. NVSL trains NAHLN laboratory personnel to ensure proficiency and standardization for performing diagnostic tests. The NAHLN consists of approximately 60 Federal, State, and university veterinary diagnostic laboratories in 42 States. These laboratories work with NVSL reference laboratories to test for 14 economically devastating and/or FADs and potentially zoonotic diseases. These include FMD, influenza in avian and swine species, bovine spongiform encephalopathy, ASF, and classical swine fever (CSF). In 2023, network laboratories performed 430,500 diagnostic tests, an increase of 90,500 from 2022, to support APHIS' animal health surveillance and response programs for NAHLN scope diseases, including the NAHLN ASF/CSF active surveillance. NAHLN program staff conduct exercises to prepare participating laboratories for animal disease outbreak scenarios and enable them to remain proficient in animal disease testing. It also enables them to generate a rapid, local preliminary diagnostic result while NVSL performs confirmatory testing.

APHIS continues to expand its rapid detection capability to maintain a timely, effective response and build surge capacity in case of an outbreak. In addition, the Agency continues to engage in collaborative efforts at FADDL and across the NAHLN to strengthen ASF diagnostic preparedness. To enhance capacity in the NAHLN, FADDL provided proficiency testing to NAHLN laboratories, maintaining its ASF testing capacity in 2023 with 49 approved laboratories. The Agency continues to develop strategies to use oral fluids to achieve early and rapid detection of positive cases.

a) An increase of \$652,000 for pay and employee costs.

This increase consists of \$652,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

b) A one-time decrease of \$5,000,000 and 0 FTE in Veterinary Diagnostics prior-year funds.

APHIS is proposing a one-time reduction in NBAF carryover funding to achieve the targeted funding level. APHIS was able to realize savings in projected transition costs in 2025, due to the delay in the construction

of NBAF and the transfer of operations from the Plum Island Animal Disease Center. By 2025, the mission transfer from PIADC to NBAF is expected to be completed and the NBAF steady-state operations are expected to begin, with the BSL-4 laboratories being fully operational.

(10) Zoonotic Disease Management: An increase of \$206,000 (\$21,567,000 and 62 FTE available in 2024).

The Zoonotic Disease Management (ZDM) Program enhances State, national, and international collaborative efforts to promote healthy animals, people, and ecosystems by addressing zoonotic diseases and relevant One Health issues, including antimicrobial resistance (AMR). “One Health” is a collaborative, multisectoral, and trans-disciplinary approach with the goal to achieve optimal health outcomes while recognizing the interconnection between people, animals, plants, and their shared environment. According to the U.S. Centers for Disease Control and Prevention and the World Organisation for Animal Health, 60 percent of human pathogens are zoonotic, and 75 percent of emerging diseases are zoonotic (including Ebola, Zika, MERS, and SARS). Most of these zoonotic diseases originate from animal reservoirs. The Agency collaborates with industry and State partners to develop strategies, policies, and trainings to help 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 improves animal health and marketability.

AMR is the ability of a microbe to resist the effects of antimicrobials previously used to treat them. The Agency works with State, Federal, and industry partners, to promote the judicious use of antimicrobials, which supports a strong, healthy, and thriving U.S. animal agriculture system, as well as public health. In addition, APHIS works with other USDA agencies to develop practical mitigation strategies to reduce AMR prevalence in human and animal health. These strategies cover various efforts including AMR monitoring at the farm level, collection of antimicrobial drug use data, and efforts to promote stewardship of antimicrobial drugs by animal owners and veterinarians. In 2023, APHIS reported the results of a goat study which included animal identification, biosecurity practices, disease management, and antibiotic use and susceptibility. Additional results will be reported in 2024. The information collected allows the Agency to analyze trends in specific topics related to goat health, based on a previous national goat study. Additionally, APHIS works with State Departments of Agriculture, diagnostic laboratories, and public health officials to address AMR infections in humans found to have an animal component. In 2023, APHIS announced 12 awards totaling more than \$3.2 million in cooperative agreement funding to create antimicrobial resistance dashboards. These awards will help advance scientific knowledge around antimicrobial resistance through partnerships with the National Association of State Departments of Agriculture and numerous universities. These public-private partnerships will improve access to information on antimicrobial resistance in livestock, poultry, and companion animals.

APHIS coordinates with cross sector partners to develop and implement national and international One Health strategies and strengthen our emergency response capacities to ensure a quick response to zoonotic diseases. APHIS participates in multisectoral groups that emphasize the mission of One Health, including the Interagency Foodborne Outbreak Response Collaboration. APHIS also uses its position as a coordination leader on the national effort to address the animal health component of One Health for SAR-COV-2. APHIS subject matter experts provide consultation and guidance to State animal and public health agencies on decisions and testing of animals for SARS-CoV-2. APHIS participates in the North American Plan for Animal and Pandemic Influenza Health Security working group. This group exchanges information on animal and human health sector responses to SARS-CoV-2, include modeling, detection, diagnostic information and healthcare capacity and capability data. In 2023, APHIS shared animal health information with the CDC on monkeypox, Japanese encephalitis virus, and highly pathogenic avian influenza.

Overall, base funding for the ZDM program currently supports salaries and benefits, as well as other normal operating expenses such as travel, supplies, equipment, and rent, and utilities to conduct program activities.

a) An increase of \$206,000 for pay and employee costs.

This increase consists of \$206,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

- b) A one-time decrease of \$3,000,000 in prior-year funding and 0 FTE for antimicrobial activities.

APHIS is proposing a one-time reduction in zoonotic disease management carryover funding. APHIS received funding to support the development of an AMR dashboard from 2021 through 2023. APHIS maintains an AMR dashboard on its website as part of the National Animal Health Laboratory Network AMR Pilot Project. Through this project, APHIS has been able to identify several areas for enhancements in collecting and sharing AMR data with partners. In 2023, APHIS announced a funding opportunity for others to partner with the Agency and build upon the existing dashboard and develop new dashboards and dashboard tools to improve access to information on AMR in domesticated animals, including livestock, poultry, and companion animals. These dashboard tools are used to monitor trends in antimicrobial resistance patterns, detect emerging resistance profiles, and better understand relationships between antimicrobial use and animal health management practices and AMR. At the proposed funding level, the Agency would maintain the current dashboard and incorporate the new tools developed through funding opportunity announcements.

(11) Agricultural Quarantine Inspection: An increase of \$5,222,000 and 57 FTE (\$35,541,000 and 367 FTE available in 2024).

APHIS conducts predeparture 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 pests and diseases harmful to agriculture that are not established in the continental United States. For example, a variety of economically devastating fruit flies – particularly the Mediterranean fruit fly (Medfly) and Oriental fruit fly – and scale pests are present in Hawaii. In 2015, Puerto Rico experienced its first Medfly outbreak, along with an outbreak of the old-world bollworm. Plant and plant products, such as fruits and other commodities, easily carry pests that would cause significant economic damage to the mainland United States. The predeparture inspection program protects citrus production (with a production value of nearly \$3 billion in 2022, according to USDA’s National Agricultural Statistics Service), cut flowers, and nursery stock production, among many others. Two significant cotton pests, pink bollworm and the cottonseed bug, are present in Puerto Rico and could be brought into the United States on cargo shipments without an effective inspection program.

Additionally, the presence of African swine fever (ASF) in the Dominican Republic and Haiti poses a risk to Puerto Rico and to the U.S. mainland because of proximity and trade and travel patterns. As part of the ASF emergency program, APHIS enhanced predeparture inspection operations for passenger baggage from Puerto Rico as an emergency preparedness measure and will continue the enhanced focus on animal products to prevent high-risk products from entering the continental United States. The predeparture inspection program facilitates tourism and agricultural trade between Hawaii and Puerto Rico and the mainland United States, while protecting farmers and producers in the continental United States from the entry of various plant pests and diseases.

Because of the significant risks associated with numerous fruits, vegetables, and other plant products from Hawaii and Puerto Rico, as well as animal products capable of transmitting ASF, APHIS inspects all baggage of passengers leaving these islands. In 2023, APHIS inspected the baggage of 15.9 million passengers, compared to just over 13 million in 2019, the last full year before the SARS-CoV-2 pandemic. APHIS conducts these activities as the national plant health regulatory authority in the United States charged with protecting the health and value of agricultural resources. For commercial cargo, the program oversees treatments and conducts inspections in Puerto Rico for mangoes, cotton, tomatoes, cut flowers, and a variety of other commodities to allow them to be transported and sold in the continental United States. In Hawaii, the program oversees treatments for and inspects a variety of commodities destined for the continental United States, including papayas, bananas, sweet potatoes, herbs such as basil, cut flowers, and ginger root. APHIS inspectors continued critical work facilitating the movement of cargo, conducting treatments, and inspecting containment facilities and first-class mail. In 2023, the program conducted more than 100,000 inspections of regulated agricultural commodities shipped from Hawaii and Puerto Rico and oversaw or conducted 4,171 cargo treatments. Treatments allow farmers in Hawaii and Puerto Rico to expand the types of high-value, perishable products that they can ship to the continental United States, including sweet potatoes and tropical fruits such as litchi and longan.

The Agricultural Quarantine Inspection (AQI) 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. The program's inspections reduce the impact of agricultural pests and diseases on farmers in the continental United States, minimizing production losses and pest control costs and preserving export markets for U.S. agricultural products. Without this program, the risk of pest or disease introduction from Hawaii and Puerto Rico to the mainland United States would greatly increase. Additionally, many 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 year-round fruits and vegetables.

Overall, base funding for the AQI program currently supports salaries and benefits of inspectors and other staff, as well as normal operating expenses such as rent, utilities, travel, and supplies to conduct program activities.

a) An increase of \$1,222,000 for pay and employee costs.

This increase consists of \$1,222,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

b) An increase of \$4,000,000 and 57 FTE for Agricultural Quarantine Inspection.

The Hawaii Department of Transportation is modernizing its airport infrastructure at the Ellison Onizuka Kona International Airport located on the island of Hawaii and the Daniel K. Inouye International Airport located in Honolulu on the island of Oahu to accommodate increasing travel and tourism. The airports are adding 15 new gates overall. The Kona airport modernization also includes a new centralized checkpoint led by the Transportation Security Administration and can accommodate 10 additional flights per day. APHIS added new x-ray machines in both locations and adjusted staffing to cover the new gates, but additional staff is needed to ensure coverage for the long-term. APHIS is requesting an increase to add 45 FTEs in Hawaii as the program will need to cover these new terminals on an ongoing basis without affecting passenger wait times as well as maintain/replace the increasing stock of equipment such as x-ray machines. These operations are critical in preventing the movement of agricultural pests from Hawaii to the continental United States.

APHIS implemented an ASF protection zone covering Puerto Rico and the U.S. Virgin Islands to prevent ASF from reaching the island or the mainland United States. APHIS enhanced existing predeparture inspection efforts in Puerto Rico by adding temporary staff, canine detection teams, and x-ray machines at airports and express carriers and implementing an inspection program at U.S. mail facilities for packages bound for the continental United States. Additionally, APHIS conducts outreach activities throughout the protection zone to ensure awareness of the restrictions on movement of pork and pork products. The program intensifies outreach efforts during holiday periods when popular pork products are more likely to be carried by travelers or shipped through express couriers. These types of products can enter the United States through cargo containers or express couriers, and they are sold in local markets as well as on social media sites and e-commerce platforms. When inspectors find prohibited pork products, they remove the products and dispose of them in accordance with approved safeguarding practices. Since beginning operations at the end of 2021, APHIS has intercepted and destroyed nearly 70,000 kgs of prohibited pork and pork products in the zone—products that otherwise would have reached the U.S. mainland, threatening swine production in the continental United States. APHIS initiated these enhanced activities with emergency funds transferred to the Agency for ASF prevention activities. In 2025, APHIS will need additional funding, covering 12 FTEs and other operational expenses, to continue these activities on an ongoing basis as the risk of ASF in the Caribbean will likely remain high. The risk of introducing ASF and potentially other economically significant animal diseases like classical swine fever will increase in the absence an effective monitoring program.

The AQI 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.

c) Designation of Agricultural Quarantine Inspection as no-year.

APHIS requests the line item be designated as no-year funding due to challenges with periodic needs to replace equipment such as x-ray machines and the need to bring on additional staff during surges in the number of flights and passengers to be processed. No-year authority would provide more flexibility in replacing equipment and absorbing costs associated with surge capacity for high-volume periods.

(12) Cotton Pests program: An increase of \$163,000 (\$15,450,000 and 49 FTE available in 2024).

The Cotton Pests program, in cooperation with States, the cotton industry, and Mexico, works to eradicate the boll weevil (BW) 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, according to the National Cotton Council.

APHIS' Cotton Pests program also partners with States and industry to address pink bollworm (PBW). On October 19, 2018, USDA and industry partners officially announced the successful eradication of PBW from all commercial cotton-producing areas in the continental United States. In 2018, Florida added a PBW quarantine for an area in the Everglades where a wild PBW population has persisted for the last 80 years and appears to only be active in wild cotton. As a result, APHIS, along with the Florida Department of Agriculture and Consumer Services and the Florida cotton industry, began surveying the perimeter of the commercial cotton area in the northern part of the State and the adjacent okra fields in the city of Homestead to ensure that PBW has not spread. APHIS continues to survey these areas in Florida to ensure that isolated PBW populations in southern Florida do not move into the commercial cotton production areas north of the Everglades.

APHIS provides national coordination, operational oversight, technology development and a portion of funding through cost-share programs with States. APHIS' partners have provided more than two-thirds of the funding for the BW eradication effort and most of the operational funds to eradicate PBW. The program also maintains capabilities to address other cotton pests that could enter the United States.

APHIS provides technical advice on trapping and treatment protocols to our partners in Mexico to aid in their efforts to eradicate BW. 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 is at risk of new pest introductions, as well as re-infestation of cotton-producing areas where BW and PBW have already been eradicated.

APHIS and our State and cotton industry partners have eradicated BW from 99 percent of the 13.76 million acres of U.S. cotton production (National Agricultural Statistics Service, 2022). The Lower Rio Grande Valley (LRGV) in Texas is the last zone within the United States where active BW eradication efforts continue due to the neighboring Mexican cotton producing state of Tamaulipas. In 2024, APHIS will continue to reduce the BW population in the LRGV and partner with the U.S. cotton industry on BW surveillance efforts for all U.S. cotton production. In addition, APHIS will continue to partner with the Mexican BW eradication program to provide technical assistance and funding through the North American Plant Protection Organization agreement for their parallel program to the LRGV program.

According to the National Cotton Council of America, where BW has been eradicated, the combined annual direct economic benefits from increased yields, reduced insect damage and lower insect control costs are more than \$80 million.

Overall, base funding for the Cotton Pests program currently supports salaries and benefits, cooperative agreements, and programmatic contracts, as well as other normal operating expenses such as travel, rent, and utilities to conduct program activities.

a) An increase of \$163,000 for pay and employee costs.

This increase consists of \$163,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

(13) Field Crop and Rangeland Ecosystem Pests program: A decrease of \$4,744,000 (\$14,986,000 and 77 FTE available in 2024).

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 doing so, it facilitates safe international trade and domestic commerce, preserves economic opportunities for U.S. farmers and ranchers, 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. APHIS 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 Carolina and South Carolina to protect U.S. corn production. This program directly protects more than 230,000 acres of wheat and corn (based on APHIS analysis). It indirectly protects all U.S. wheat and corn production, valued at more than \$106 billion in calendar year 2022 (National Agricultural Statistics Service, Crop Values 2022 Summary), from the spread of KB and witchweed.

When grasshopper populations reach outbreak levels, they can decimate grasslands. APHIS’ GMC program monitors and protects 661 million acres of rangeland each year. A 2012 University of Wyoming study found that healthy rangeland provides forage value worth \$6.7 billion and overall benefits ranging from \$10.7 to \$21.2 billion. Each year, APHIS conducts surveys in western States for GMC, collecting data at 21,511 survey points in 2023, to determine where potential outbreaks could occur and where treatments might be necessary. 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’ IFA program works to prevent human-assisted spread of this pest by requiring treatment of materials capable of harboring IFA, such as nursery stock and hay, are treated before leaving infested areas. The economic impact if IFA reached all suitable habitats in the United States where the pest could become established would be greater than \$10.6 billion per year (Economic Evaluation of the Regulatory Program for Imported Fire Ants, APHIS, March 2018). APHIS will continue conducting annual surveys and other activities to manage these pests in 2025.

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. Based on the program’s quarantine and survey data, APHIS issues export certificates that are required by countries importing U.S. wheat. These certificates demonstrate to trading partners the safety of U.S. wheat exports, retaining export markets and facilitating wheat movement into international markets. If KB funding was eliminated, the disease could enter the grain market system and directly impact almost every State. Many trading partners will not accept U.S. wheat exports unless the commodity is certified to be from areas where KB is not known to occur. Working with cooperators, APHIS has reduced the wheat production areas regulated for KB from all or portions of 4 States to 42,814 acres in Arizona since 1996 (with more than 63,000 acres removed from quarantine in 2023). APHIS will continue survey and regulatory activities aimed at keeping KB from causing damage and/or trade disruptions in 2025.

The FCREP program is also working to address pests and other stressors that impact roseau cane, an important grass species in wetland areas of the lower Mississippi Delta, Louisiana. The plant’s root system provides wildlife habitat, protects the interior from storm surges, and protects riverbanks from erosion, which impacts the Mississippi River navigation channel. Since 2017, researchers from Louisiana State University (LSU) and Agricultural Research Services (ARS) have investigated multiple potential stressors causing dieback of roseau cane in the Mississippi River Delta. These stressors include high water levels, salinity intrusion, scale insects, plant pathogens, and soil chemistry. The work to date by the roseau cane die-back team has improved our understanding of plant stressors on roseau cane and the biology, distribution, feeding ecology, and impact of the scale insect attacking the cane at the Mississippi River Delta. APHIS will continue this effort in 2024, with LSU and ARS.

APHIS also works with States to address cogongrass, an invasive perennial weed that is a prolific seed producer and forms an extensive rhizome network underground. The wind-dispersed seeds are easily spread along rights of way encouraging population expansion. Cogongrass invades pine plantations and is believed to create chemical interference that decreases pine production. Controlling this weed is difficult because its rhizomes are drought, fire, and herbicide tolerant. APHIS estimates that cogongrass has the potential to spread across 82 percent of the United States. APHIS provided funds to Alabama, Georgia, Mississippi, and South Carolina to address cogongrass in 2023, and will continue providing funds to these States in 2024 to combat cogongrass.

Overall, base funding for the FCREP program currently supports salaries and benefits, cooperative agreements, and programmatic contracts. Other funding supports normal operating expenses such as rent, utilities, travel, supplies, and equipment to conduct program activities.

a) An increase of \$256,000 for pay and employee costs.

This increase consists of \$256,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

b) A decrease of \$3,000,000 and 0 FTE for efforts to address cogongrass.

Cogongrass is an invasive perennial weed that is a prolific seed producer and forms an extensive rhizome network. The primarily wind-dispersed seeds spread easily along rights-of-way and in other disturbed areas encouraging population expansion. APHIS provides funding to Alabama, Georgia, Mississippi, and South Carolina to address cogongrass. While cogongrass is an invasive noxious weed, it falls outside of APHIS' core mission of protecting U.S. agricultural health. The U.S. Forest Service also provides funding to the States to assist with managing this weed. Accordingly, APHIS proposes to eliminate this funding.

c) A decrease of \$2,000,000 and 0 FTE for activities addressing roseau cane.

Roseau cane is an important grass species in wetland areas of the lower Mississippi Delta in Louisiana. The plant's root system provides wildlife habitat, protects the interior from storm surges, and protects riverbanks from erosion, which impacts the Mississippi River navigation channel. APHIS provides funding through cooperative agreements with Louisiana State University and the Agricultural Research Service to conduct long-term, multi-disciplinary work determining what factors are causing the roseau cane decline. While roseau cane is an important grass species in the lower Mississippi Delta and helps protect the Mississippi River navigation channel, it falls outside APHIS' core mission of protecting U.S. agricultural health. Accordingly, APHIS proposes to eliminate this funding.

(14) Pest Detection program: An increase of \$619,000 (\$29,075,000 and 186 FTE available in 2024).

The Pest Detection program serves as the early warning system for the detection of plant pests of economic and environmental significance in the United States. The program helps farmers and producers by documenting the status (or absence) of plant pests and diseases that could impact trade opportunities, both interstate and international. It also helps APHIS' State-level partners by providing funding and infrastructure to conduct surveys for high-risk pests that may affect their State. The information the program collects provides the basis for APHIS' emergency response and regulatory efforts that preserve economic opportunities for farmers and safeguard U.S. agricultural and natural resources. Specifically, the program identifies and prioritizes plant pest and disease threats; develops scientifically sound pest survey protocols; procures essential survey materials (traps, lures, etc.); cooperates with State partners to conduct the pest surveys; and shares data with States about significant pest detections.

APHIS provides national coordination for the program and develops policies and procedures for commodity-based and resource-based pest surveys. These surveys enable APHIS and cooperators to target high-risk hosts and commodities, gather data about pests specific to a commodity, and provide accurate assessments of pest distribution, including pest-free areas. Negative data from program surveys supports U.S. market access for several important commodities by demonstrating that the pests are not present. Examples include data showing that the Khapra beetle, a serious pest of wheat and grain, and the European grapevine moth, a pest of grapes, are not present in the United States. Additionally, while many entities are involved in protecting crops and resources, APHIS' role is to verify that U.S. exported products do not pose risks to other countries. For

example, when a survey first detected the pale cyst nematode in Idaho, the program had data demonstrating negative survey results in other potato-producing States that kept export markets open for U.S. potatoes. The value of the markets that remain open was more than \$303 million in calendar year 2022 (Foreign Agricultural Service Global Agricultural Trade System). As a result of this program, highly skilled, national cadres of surveyors are in the field on a daily basis looking for high-risk pests. In 2023, APHIS and cooperators in 50 States and 4 territories conducted surveys targeting a total of 222 unique pests, including 97 percent of those identified as high-risk. APHIS and State cooperators conduct surveys for multiple pests at each location for efficiency and economy of survey.

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. 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.

Overall, base funding for the Pest Detection program currently supports salaries and benefits, and cooperative agreements, as well as other normal operating expenses such as travel, rent, utilities, and supplies to conduct program activities.

a) An increase of \$619,000 for pay and employee costs.

This increase consists of \$619,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

(15) Plant Protection Methods Development program: An increase of \$433,000 (\$22,557,000 and 130 FTE available in 2024).

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. The program plays an essential role in APHIS' mission by developing tools for the detection of exotic plant pests in survey programs; molecular diagnostic tests and identification tools for pest identification; integrated pest management methods, including biological control, to help eradicate or manage invasive pests; and treatments to support interstate and international trade.

APHIS' nationwide pest detection surveys and pest management programs depend on accurate and effective tools. The PPMD program supports development of pest trapping, identification, and survey technologies. Digital pest identification tools and molecular diagnostics developed through PPMD funding supports both domestic programs and import pest identification responsibilities. APHIS uses these tools to conclusively identify exotic species introductions in order to take appropriate regulatory actions. The program also develops pest management techniques that APHIS national programs use to manage or eradicate invasive pest threats. The PPMD program aims to develop new, or improve existing, tools each year to enhance APHIS' safeguarding capabilities. For pest identification, the program continues to design, develop, and deliver digital, media-rich, identification tools for APHIS to support trade and domestic, port, and offshore pest identification responsibilities.

The PPMD program also maintains its own quarantine and rearing facilities for biological control agents in Arizona, California, Colorado, Massachusetts, Michigan, Texas, and Guatemala. APHIS partners with USDA's Agricultural Research Service, the U.S. Fish and Wildlife Service, State departments of agriculture, universities in 30 States and Territories, and 2 Native American Tribes to evaluate and establish biological control agents for invasive plants, pests, and diseases. The biological control program has been responsive in developing biological control agents to address invasive pests and weeds such as Asian longhorned beetle, emerald ash borer, roseau cane scale, air potato, and spotted lanternfly. The biological control portfolio in 2023, included 31 cooperative agreements with States and Tribal Nations that collectively attack 16 exotic weeds and 3 arthropod pests.

The PPMD program also supports research related to invasive honey bee pests. Managed honey bee colonies add at least \$15 billion to the value of U.S. agriculture each year through increased yields and superior quality harvests (O'Brien, D. 2019 ARS Microscopy Research Helps Unravel the Workings of a Major Honey Bee Pest). In 2023, the program continued to fund priority projects with other Federal agencies as well as university and non-profit researchers that support managing, suppressing, and eradicating Varroa mites and other pests and diseases contributing to a decline in honey bee health. These projects included investigating a multidisciplinary approach for tackling emerging disease outbreaks, management techniques to improve overwintering success, and detection and management of the parasitic Tropiclaelaps mites that feed on worker bee pupae. In 2024, the program will continue to fund similar priority projects to important issues related to honey bee health. In 2024, the program will continue working to develop new management tools and pest detection methods for the highest priority pests and diseases.

Overall, base funding for the PPMD program currently supports salaries and benefits, cooperative agreements, and programmatic contracts, as well as other normal operating expenses such as travel, rent, and supplies to conduct program activities.

a) An increase of \$433,000 for pay and employee costs.

This increase consists of \$433,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

(16) Specialty Crop Pests: An increase of \$2,810,000 and 7 FTE (\$216,117,000 and 796 FTE available in 2024).

The Specialty Crop Pests (SCP) program protects U.S. farmers and producers of fruits and vegetables, tree nuts, horticulture, and nursery crops from adverse impacts associated with invasive pests, such as crop damage or threats to international trade and interstate commerce. APHIS works in coordination with State, Tribal, university, and industry partners to prevent or mitigate impacts from invasive pests of Federal regulatory significance. These efforts promote the ability of U.S. farmers and producers to export their products; prevent damage to specialty crop production; protect natural resources, including forests and residential landscapes; and contribute to global food security. Specialty crops are of high value and are grown in all 50 States. APHIS' SCP program directly protected specialty crop production worth more than \$11.5 million in calendar year 2022, and indirectly protected additional specialty crop production valued at nearly \$7.6 billion by preventing the spread of these damaging pests and diseases to new areas (APHIS internal analysis based on National Agricultural Statistics Service data). APHIS is currently using SCP resources to address the following pests and diseases: exotic fruit flies, a variety of citrus pests and diseases, pale cyst nematode (PCN), navel orangeworm (NOW), light brown apple moth, European grapevine moth (EGVM), glassy-winged sharpshooter (GWSS), *Phytophthora ramorum*, and spotted lanternfly (SLF), among others.

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, Guatemala, and Belize to mitigate the risk of exotic fruit flies entering the United States. The program has kept the United States free of Mediterranean fruit fly (Medfly) and Mexican fruit fly (Mexfly) for many years by conducting preventive releases of sterile insects to disrupt normal population growth in at-risk areas; detecting and responding to outbreaks when they occur; maintaining a barrier against the natural spread of the Medfly in Mexico and Central America; and developing advanced methods for survey and control. Medfly has a host list that includes 300 cultivated and wild fruits. The Mexfly also has a wide-ranging host list and presents a particular threat to the Texas citrus industry due to its proximity to infested areas in Mexico. Increasingly, tephritid fruit flies of the genus *Bactrocera* pose a threat, with several outbreaks of the Oriental fruit fly (the most commonly intercepted *Bactrocera* species in the United States) over the past decade and outbreaks of two similar species in the United States— tau fruit fly in July 2023 and Queensland fruit fly in October 2023. APHIS and cooperators maintain 160,000 fruit fly traps in vulnerable areas of the United States to ensure that such introductions of exotic fruit flies are quickly detected, enabling fast and effective response efforts. In 2024, APHIS is addressing seven outbreaks of exotic fruit flies in California and increased Medfly detections in Mexico and Guatemala as well as continued risks in Texas and Florida and other vulnerable areas. Without the program's efforts to detect and eradicate these outbreaks when they occur, many important crops would become impossible to grow due to fruit fly infestations. To reduce ongoing risks related to Mexfly infestations in Texas,

the program shifted to a strain of sterile Mexflies that enable male and female flies to be separated and only the males released, for more efficient targeting of wild flies. The program is evaluating options for upgrading its outdated sterile Mexfly facility in Texas to ensure the program's success on an ongoing basis. APHIS will continue activities to prevent, detect and respond to any outbreaks that occur in 2025.

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, also known as Huanglongbing (HLB). Through the Citrus Health Response Program, APHIS supports cooperators in citrus-producing States with on-the-ground operations, such as surveys, regulatory inspections, and outreach to affected growers and the public, as well as methods development activities. APHIS conducts inspections of Florida citrus shipments destined for export to the European Union and other countries, allowing citrus producers to take advantage of export opportunities. APHIS also conducts survey and treatment activities for citrus pests and diseases in Mexico, working to coordinate the timing of treatments for pests such as Asian citrus psyllid along both sides of the U.S. border to maximize the effectiveness of pest suppression activities. Because of the ongoing threat that HLB poses, APHIS, other Federal agencies, State partners, and the citrus industry have worked together on the HLB Multi-Agency Coordination (MAC) group since 2013, to identify and implement tools to combat the disease. By funding work to bridge the gap between research and field deployment, the HLB MAC Group speeds implementation of practical tools that can aid the citrus industry to combat HLB. Since 2019, the HLB MAC group has initiated a grower-collaborative approach that brings researchers and growers together to generate data that will serve as the foundation for grower-specific guidance on best management practices for HLB. The solutions found through this effort will continue to help citrus growers manage the disease while research into long-term solutions for HLB continues. APHIS will continue to address HLB and other citrus diseases in 2025.

Federal response activities take place in concentrated areas where the infestations occur (e.g., PCN in Idaho or exotic fruit fly outbreaks in areas of California, Florida, or Texas), but also work to protect all at-risk States producing specialty crops. For example, while the SCP program works to address the PCN in Idaho, it also conducts nationwide surveys for the pest to demonstrate to trading partners that potato-producing areas outside of the quarantined area are not affected by PCN, protecting fresh potato export markets worth more than \$303 million in 2022 (Foreign Agricultural Service Global Agricultural Trade System Database). The program also addressed plum pox virus (PPV), a devastating viral disease of stone fruit, in New York, Michigan, and Pennsylvania. USDA declared the United States free of PPV in October 2019. APHIS has completed surveys for PPV and will maintain PPV-preparedness by ensuring that the United States has certified laboratories and diagnosticians for rapid response activities, protecting more than 1 million acres of stone fruit across the United States. Without the SCP program, 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 without the SCP program was \$3.6 billion in 2022, according to an internal APHIS report using data from the Foreign Agricultural Service's Global Agricultural Trade System.

Through the SCP program, APHIS also addresses SLF, a serious pest of grapes, apples, hops, walnut trees, and other hardwood trees. APHIS and cooperators are using an area-wide strategy that includes expanded surveillance, control, and outreach activities for this pest. Agricultural producers across the country are concerned about the pest's spread. There is a strong correlation between new SLF populations and major transportation pathways, such as railroads and interstate corridors. APHIS conducts targeted treatments and, in some areas, removes SLF's preferred host plant, tree of heaven, from transportation hubs with the aim of reducing the risk of SLF spread to new areas. APHIS and cooperators also continue to conduct treatments on the leading edge of the infestation and to eradicate isolated infestations. SLF is particularly damaging in vineyards and preventing it from spreading to new areas and continuing to develop new treatment methods will protect grape production across the country. APHIS and the National Plant Board and the National Association of State Departments of Agriculture developed a strategic plan to guide the program over the next five years with three goals, including limiting advancement of SLF spread, identifying new tools and options for SLF control and management, and developing a national and state outreach and educational campaign for the public and industries at risk due to long-range dispersal of SLF. The strategic plan working group is developing options for the best use of resources to accomplish the goals. U.S. grape production was worth approximately \$5.9 billion in calendar year 2022 (NASS Noncitrus Fruits and Nuts Summary, May 2023).

APHIS partnered with the State of California and grape growers to eradicate EGVM and continues to prevent the spread of GWSS into other grape-producing areas. APHIS declared the eradication of EGVM in 2016, after

an intensive, 7-year cooperative effort. The program conducted three additional years of post-eradication surveys, ending in 2019. With EGVM eradicated, APHIS is expanding the surveys in 2024, using a multi-lure trap that targets four grape pests in addition to EGVM as well as monitor California grape-growing areas for SLF, to ensure the pest would be detected early if it is introduced. The GWSS program began in 2000, to limit the spread of GWSS, a vector of Pierce’s disease, which is deadly to grapevines and costly to growers and the industry. Through survey, treatment, and inspection, the program has restricted GWSS to southern California, protecting over half of the grape growing acreage in California. APHIS will continue working with partners in California to prevent the spread of GWSS in 2025, and is expanding EGVM surveys to include additional pests in California.

APHIS partnered with tree nut industries, as well as Arizona and California State cooperators, to develop sterile insect technology to address NOW, a serious pest of pistachios, almonds, and walnuts. In 2023, APHIS produced and released more than 301 million sterile NOW over pistachio and almond orchards participating in an area-wide program targeting NOW. APHIS and its partners’ goal is to integrate and expand SIT with other integrated pest management strategies available to producers. In 2025, APHIS will continue working with cooperators and producers to manage NOW and help protect nut production worth approximately \$5.8 billion for the 2022/2023 season (Economic Research Service Fruit and Tree Nut Yearbook Tables).

Overall, base program funding supports salaries and benefits, cooperative agreements, as well as other normal operating expenses such as supplies, equipment, and rent, to support program activities.

a) An increase of \$2,650,000 for pay and employee costs.

This increase consists of \$2,650,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

b) An increase of \$2,006,000 and 7 FTE for Seed Health.

In the last decade, APHIS has detected an increasing number of diseases that follow the seed pathway, especially Tobamoviruses, such as tomato brown rugose fruit virus (ToBRFV) and cucumber green mottle mosaic virus (CGMMV), and pospiviroids, such as Potato spindle tuber viroid (PSTVd). These pathogens, which affect a variety of specialty crops such as tomatoes, peppers, potatoes, melons, and cucumbers, are easily spread by mechanical transmission once they are in a production system. These diseases cause discoloration and damage to plants and fruit, rendering the fruit unmarketable. Testing seed for these pathogens and certifying disease-free seed lots prior to distribution is one way to prevent the introduction and spread of these pathogens.

APHIS initiated the National Seed Health Accreditation Pilot Program (NSHAPP) with Iowa State University in 2016, to develop a model for a voluntary system of testing seeds imported into the United States for pathogens of phytosanitary concern. CGMMV served as the first pathogen to be tested under this program. APHIS accredits participating importers to screen incoming cucumber, melon, and watermelon seeds, which allows them to ensure their imports are free of the CGMMV using an approved testing method. Through the program, participants screened more than 8,000 seed lots in calendar year 2022, for CMGGV. In contrast, without the NSHAPP industry partnership, APHIS was able to screen only 162 seed lots of peppers and tomatoes at ports of entry during a similar time period, representing a small fraction of seeds imported.

In 2022, APHIS and industry partners determined the NSHAPP pilot was successful, and APHIS proposes to expand the program. This proposal focuses on formalizing the pilot program, expanding to solanaceous seed such as tomato and pepper seeds, and preparing to include domestically produced seed. APHIS will leverage existing industry resources for seed testing, similar to the CGMMV pilot program. Participating in the program will allow importers to meet U.S. import requirements more easily, avoid demurrage costs as they await seed testing results from APHIS, and fulfill their “just-in-time” supply chain needs. Should a domestic quarantine be implemented for a seed-transmitted pathogen, domestic seed producers would also be eligible to participate in the program to facilitate interstate shipping.

APHIS will use the funding to build auditing capabilities for this program, establish proficiency testing panels for target pathogens, develop data infrastructure improvements, and support the seed health

reporting system for industry. The funding will support seven FTEs, including a national seed health coordinator, national operations manager, auditors, scientific support for proficiency testing, and administrative support. APHIS will also use a portion of the funds for a cooperative agreement with Iowa State University to continue their online Seed Health Dashboard, which NSHAPP participants currently use to report testing results. Without efforts to prevent the spread of ToBRFV and similar pathogens, APHIS and U.S. producers will face disease detections and associated losses to valuable crops, including nursery, greenhouse and field production. U.S. tomato production in calendar year 2022, had a production value of more than \$1.7 billion (USDA's National Agricultural Statistics Service Quickstats). Producing this crop requires consistent supplies of healthy seed and young plants.

- c) A decrease of \$1,180,000 and 0 FTE for European grapevine moth activities.

EGVM is an exotic pest of grapes that could devastate grape production in California. APHIS and cooperators eradicated an outbreak of this pest in 2016 after an intensive 6-year cooperative program. Following the cooperative eradication program, APHIS provided funds to the California Department of Food and Agriculture (CDFA) for a 3-year post-eradication monitoring program, completed in 2019. APHIS and CDFA are expanding the surveys to include additional foreign grape pests using a multi-lure that targets four pests in addition to EGVM. At the proposed funding level, the Agency would reduce the level of survey, focusing on the highest risk sites, and reduce the amount of the cooperative agreement with CDFA.

- d) A decrease of \$173,000 and 0 FTE in support of the Huanglongbing Multi-Agency Coordination Group.

Citrus greening, or HLB, is the most serious threat to the U.S. citrus industry. It has significantly impacted citrus production in Florida since it was first detected in 2006 and poses serious risks to citrus production in Texas, where it is also present in citrus groves, and California, where it has only been detected in residential areas. APHIS, along with State and industry cooperators, have used HLB MAC funds to establish long-term projects in Florida, California, and Texas. These projects test combinations of management tools for HLB to determine the best mix of tools to keep citrus groves productive in the conditions in each of the States. The ongoing maintenance costs for the projects will be lower by 2025 than the initial set-up costs and so APHIS proposes a minor reduction to HLB-MAC from these cost savings.

- e) A decrease of \$1,115,000 and 0 FTE for *Phytophthora Ramorum*.

Phytophthora Ramorum (*P. ramorum*), which causes sudden oak death, can be moved through host nursery stock and can affect a variety of forest trees. APHIS has worked to protect natural resources, nursery stock production, and trade by limiting the spread of *P. ramorum* from quarantine areas and affected nurseries through regulatory strategies and adoption of mitigations and changes to cultural practices. The disease is present in coastal northern California (affecting 16 counties in the State) and a small area in Curry County, Oregon. APHIS recently updated its pest risk analysis for this disease and determined that only one region on the Pacific Coast is suitable for the disease to become established. Based on this finding, APHIS and cooperators can discontinue costly trace forward activities in areas the disease cannot establish itself and impact agriculture or natural resources. At the proposed funding level, the Agency would focus resources in the high-risk region.

- f) An increase of \$622,000 and 0 FTE for rising overseas operational costs related to fruit fly exclusion and detection activities.

APHIS mitigates the risk of exotic fruit flies through a combination of early detection, rapid response to outbreaks, and prevention of fruit fly establishment through the release of sterile insects that mate with wild flies and prevent normal population growth as well as international activities in Mexico and Central America aimed at stopping the natural, northward spread of Medfly and Mexfly. The program has domestic operations in Florida, Texas, California, and New York, detection networks in other States with climate and host material suitable for fruit flies, and international operations in Mexico, Guatemala, and Belize. APHIS suppresses fruit fly populations in these countries to reduce pressure on the United States and has sterile fruit fly production facilities that provide sterile insects for U.S. operations. In Guatemala, the program produces more than 1 billion sterile flies per week for release in the United States and locally in the program area. The program's overseas operations incur costs specific to international programs, including

annual increases in International Cooperative Administrative Support Services costs charged by the U.S. State Department to provide shared administrative services at overseas locations as well as increases to locally employed staff salaries and benefits, which are tied to local laws in other countries. Over time, these unavoidable expenses erode the program's ability to fill vacancies and maintain program operations when additional funding is not provided to cover them.

(17) Tree and Wood Pests: An increase of \$972,000 (\$62,562,000 and 292 FTE available in the 2024).

America's forests are valuable resources that provide jobs and recreation opportunities and create habitat for wildlife. Through the Tree and Wood Pests (TWP) program, APHIS addresses devastating pests such as the Asian longhorned beetle (ALB), emerald ash borer (EAB), spongy moth, formerly referred to as European gypsy moth (EGM) and flighted spongy moth complex formerly referred to as Asian gypsy moth (AGM). [The Entomological Society of America selected new common names for EGM, and Asian gypsy moth complex. APHIS plans to incorporate the new common names across all of APHIS documents, including its regulations, program manuals, and outreach materials, over the next fiscal year]. Numerous native hardwood tree species that are common throughout U.S. forests and urban landscapes are hosts to these pests. When forest pests like ALB kill large numbers of trees in urban and suburban areas, they can cause tremendous, wide-ranging impacts to communities, landscapes, and commerce. In addition, exports of forest products such as logs and timber could be at risk due to trade restrictions put in place by other countries.

Nationwide, APHIS programs protect 596 million acres of forested land by preventing the spread of damaging pests. Without Federal funding, forest pests would spread more rapidly throughout the United States, and responding to newly introduced pests would become increasingly difficult. The value of forest products that APHIS protects is over \$200 billion (U.S. Forest Service).

APHIS cooperates with State and local agencies and organizations in 48 States to conduct various activities to manage and, when feasible, eradicate forest pests. These activities include conducting surveys, 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.

In 2024, APHIS will continue addressing ALB outbreaks in Massachusetts, New York, Ohio, and South Carolina, and continue pursuing biological control options as a long-term EAB management strategy. In addition, APHIS, alongside the Forest Service and the EGM Slow-the-Spread Foundation, continues its work to slow the spread of EGM and eradicate isolated populations, keeping this pest from becoming a larger issue.

Overall, base funding for the TWP program currently support salary and benefits, contracts, and cooperative agreements, as well as other normal operating expenses such as rent, supplies, travel, and equipment to conduct program activities.

a) An increase of \$972,000 for pay and employee costs.

This increase consists of \$972,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

(18) Wildlife Damage Management program: An increase of \$2,074,000 and 0 FTE (\$121,957,000 and 623 FTE available in the 2024).

The Wildlife Damage Management (WDM) program resolves human/wildlife conflicts and protects agriculture, human health and safety, personal property, and natural resources from wildlife damage and wildlife-borne diseases in the United States. This program protects livestock from predators, manages damage from invasive species, such as feral swine and brown tree snakes; conducts a national rabies management program; and manages damage, conflicts, and diseases caused by various wildlife species, such as beavers, double-crested cormorants, and other migratory birds. APHIS conducts these activities under the authority of the Animal Damage Control Act, which allows the Agency to control mammals and birds that are a nuisance or serve as reservoirs for zoonotic diseases. These activities benefit farmers, ranchers, other private landowners, businesses,

and Federal, State, county, and city government offices. APHIS carries these activities out with appropriated funding the Agency receives as well as funding from Federal, State, and local cooperators.

APHIS protects resources and safeguards human health and safety from wildlife damage by providing both technical and direct control assistance upon request. For example, the Agency will provide assistance if a rancher is experiencing predators killing their cattle and sheep, or if a farmer is having trouble with fish-eating birds damaging their catfish and other aquaculture crops. This assistance could include providing advice, information, recommendations, and materials (and in some cases the necessary equipment) to the producer, farmer, or rancher to resolve the wildlife-caused damage themselves. APHIS maintains specially trained staff around the nation to provide direct control assistance, which can be necessary when the problem cannot be resolved through technical assistance alone. APHIS implements integrated approaches, consisting of multiple and varied methods, to protect resources from wildlife damage.

APHIS' wildlife disease biologists provide technical assistance, conduct surveillance, and actively assist in the monitoring of 30 wildlife diseases, pathogens, and syndromes, as well as collaborate with domestic and international academic and research institutions regarding wildlife disease surveillance. Ongoing surveillance of avian influenza in wild bird populations and diseases in feral swine is critical to manage and determine threats to the U.S. poultry and swine industries.

Overall, base funding for the WDM program currently supports salary and benefits, supplies, and equipment, as well as other normal operating expenses such, ren, security, and travel, to conduct program activities.

a) An increase of \$2,074,000 for pay and employee costs.

This increase consists of \$2,074,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

(19) Wildlife Services Methods Development program: An increase of \$419,000 (\$26,244,000 and 126 FTE available in 2024).

The Wildlife Services Methods Development (WSMD) program conducts research to develop methods to assess, prevent, and mitigate damage caused by wildlife, including invasive species, on agricultural production and to detect and prevent wildlife diseases that may impact animal health and agricultural biosecurity. APHIS provides the only dedicated Federal leadership in developing methods to manage wildlife-related damage programs and to resolve human-wildlife-agricultural conflicts.

As the research unit of WS, the National Wildlife Research Center (NWRC) is tasked with developing new wildlife damage management methods for APHIS employees and others to use. Many methods that Federal, State, and private sector wildlife professionals use today stem from APHIS' research on integrated wildlife damage control approaches. The program registers products that enable the private sector to further manage human-wildlife conflicts. The program also explores ways to reduce the spread and transmission of zoonotic diseases and develops disease surveillance and diagnostic methods. Annually, the NWRC collaborates with hundreds of different agencies, universities, private companies, and non-governmental organizations. These methods enable APHIS to reduce damage to property, livestock, agriculture, human health and safety, and/or native wildlife and ecosystems, and are essential to cooperators. The methods developed by APHIS and help preserve businesses, as well as provide regional employment opportunities.

Overall, base funding for the WSMD program currently supports salary and benefits, contracts, and cooperative agreements, as well as other normal operating expenses such as, supplies, equipment, travel, and rent to conduct program activities.

a) An increase of \$419,000 for pay and employee costs.

This increase consists of \$972,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

(20) Animal and Plant Health Regulatory Enforcement program: An increase of \$399,000 (\$18,722,000 and 120 FTE available in 2024).

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

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 USDA's Office of Inspector General and Office of the General Counsel, and/or the U.S. Department of Justice to pursue administrative, civil, or criminal action, as appropriate, in response to alleged violations of APHIS-administered laws. Program activities serve to deter individuals and companies from engaging in acts to cause extensive economic damage and/or excessive expenses related to eradication or mitigation efforts designed to protect the American agriculture system.

Overall, base funding for the APHRE program supports salaries and benefits, equipment, contracts, as well as other normal operating expenses including travel, supplies, printing, rent, and utilities to conduct program activities.

a) An increase of \$399,000 for pay and employee costs.

This increase consists of \$399,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

(21) Biotechnology Regulatory Services: An increase of \$3,990,000 and 17 FTE (\$19,691,000 and 93 FTE available in 2024).

Innovative biotechnology products can help promote more efficient use of resources, mitigate and adapt to climate change, and address growing environmental and food security challenges facing the United States and the world. Developers are using genetic engineering to produce new plants and organisms that help ameliorate direct effects of climate change (like heat, drought, and salt tolerance) and indirect effects resulting from spread and damage by plant pests and pathogens and reduce the use of pesticides and insecticides. Crops developed using genetic engineering can also improve food security and nutrition with improved yields and healthier oils, among others. Before any of these products can be brought to market, it is essential to demonstrate, through rigorous, scientific review, that they are safe for American agricultural and our natural resources.

APHIS ensures certain organisms developed using genetic engineering will not pose a pest risk to plants when released into the environment. APHIS' reviews and regulatory determinations support producers of new and innovative products in their efforts to enter commerce and the worldwide marketplace. These controls instill confidence in the public and in our trading partners that organisms developed using genetic engineering and produced in the United States are safe and of the highest quality. APHIS ensures that developers, growers, and others take important steps to prevent unauthorized release and movement of organisms developed using genetic engineering. APHIS inspects fields, equipment, and other facilities to ensure developers meet the permit conditions outlined in authorizations allowing field trials and movement of organisms developed using genetic engineering.

APHIS takes a coordinated and collaborative approach to ensure the safe development of products produced using genetic engineering. This includes working with the Environmental Protection Agency and the Food and Drug Administration, consistent with the principles of the Coordinated Framework for the Regulation of Biotechnology; and partnering with the National Plant Board to allow States to participate in the review of permit conditions for authorized field trails and movement. APHIS also shares information with international partners to enhance the harmonization of regulatory approaches for the safe use of organisms developed using genetic engineering; and to provide capacity building assistance to developing countries for the regulation of organisms developed using genetic engineering. For example, while implementing the revised plant regulations, APHIS engaged in discussions with Canada, Korea, and the United Kingdom to promote risk and science-based oversight for agriculture biotechnology products, with a goal of advancing global harmonization in product

reviews and, ultimately, facilitating market access for U.S. developers and producers. APHIS also shared scientific risk assessment approaches with countries contemplating legislation and regulatory changes in economies in South America, Asia, and Africa, building cohesion for trade and ensuring safety of plant products.

Overall, base funding for the Biotechnology Regulatory Services (BRS) program currently supports salaries and benefits, contracts, and agreements, as well as other normal operating costs, such as travel, equipment, and supplies to conduct program activities.

a) An increase of \$310,000 for pay and employee costs.

This increase consists of \$310,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

b) An increase of \$3,680,000 and 17 FTE for the Biotechnology Regulatory Services.

Over the past decade, U.S. livestock and poultry industries have seen significant advances in biotechnologies — including genome editing — used to improve agricultural animals. In 2024, USDA seeks to establish technical and scientific services to support the oversight of certain animals intended for agricultural purposes that are modified or developed using genetic engineering. In 2025, APHIS would use available funding to hire the technical and scientific staff necessary to support USDA’s engagement related to certain animals intended for agricultural purposes that are modified or developed using genetic engineering. The Agency will seek to hire individuals with livestock, wildlife, and aquaculture expertise, as well as individuals at the forefront of biotechnology innovation. APHIS will continue to work collaboratively with other Federal partners to support the USDA’s mission to protect plant, animal and public health.

(22) Contingency Fund: An increase of \$17,000 (\$514,000 and 5 FTE available in 2024).

The APHIS Contingency Fund is the Agency’s resource to immediately implement short-term, coordinated, emergency activities that are relatively small in scale and not otherwise supported by the Agency’s other appropriated commodity line items. APHIS uses this fund to respond to small, isolated pest and disease outbreaks before they can spread and cause significant economic and financial damage to producers across the United States. Specific examples include addressing outbreaks of the European grapevine moth in California, rabies in the Eastern United States and Texas, contagious equine metritis in Kentucky and other States, giant African land snail in Florida, feral swine in New Mexico, cattle fever ticks in Texas, and grasshopper and Mormon crickets in the Western United States.

By allowing APHIS programs to promptly address small-scale outbreaks, the Agency decreases the likelihood of pest and disease spread that could cripple otherwise healthy agricultural production systems and export markets.

Overall, base funding for the program supports salaries and benefits, equipment, contracts, and agreements, as well as other normal operating costs, such as travel and supplies to conduct program activities.

a) An increase of \$17,000 for pay and employee costs.

This increase consists of \$17,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

(23) Emergency Preparedness and Response program: An increase of \$4,656,000 and 26 FTE (\$44,067,000 and 197 FTE available in 2024).

The Emergency Preparedness and Response (EPR) program improves APHIS’ capability to prevent, prepare for, respond to, and recover from animal health emergencies. This program’s goal is to respond to animal health events within 24 hours from the time APHIS determines that a Federal emergency response is needed to manage an agricultural outbreak. It develops strategies, policies, and procedures for incident management and response coordination that meet national and international standards. The program participates in joint Federal,

State, and local animal health and all-hazards exercises to improve response capabilities. In addition, this program works with major commodity groups to ensure the continuous movement of livestock products during animal health emergencies. The EPR program funds activities that enable APHIS to achieve a high state of readiness and be able to respond rapidly and effectively to emergencies, thus lessening the impact of those events on producers, consumers, taxpayers, and the economy. Also, through this program, APHIS and the Centers for Disease Control and Prevention (CDC) jointly manage the Federal Select Agent Program (FSAP), which oversees the possession, use, and transfer of biological select agents and toxins that have the potential to pose a severe threat to public, animal, or plant health, or to animal or plant products.

The EPR program provides national leadership and regional coordinators in the 10 Federal Emergency Management Agency (FEMA) regions for Emergency Support Function #11: Agriculture and Natural Resources (ESF #11). These coordinators work with local, State, Tribal, Territorial, Insular Area Governments, and other Federal agencies to prepare for and respond to emergency incidents and disasters. In addition, APHIS provides support to FEMA for the care of pets and service animals during disasters. The EPR program also maintains Emergency Qualifications System dispatchers, who coordinate the delivery of emergency resources, as well as the APHIS security coordinator program and the Voluntary Emergency Ready Response Corps program, continuity planning, and Geographic Information System capability during incidents. The program also aids Agency response efforts for animal diseases, natural disasters, hazardous spills, and wildfires.

APHIS began a Ready Response Corps pilot program in 2023 to expand its emergency response capacity and alleviate the strain on the Agency's workforce during animal disease emergencies. The Ready Response Corps is designed to bolster APHIS' ability to address animal disease threats while continuing to achieve its mission. The Agency announced positions for 12 animal health professionals to be placed in geographic areas that are at high risk for outbreaks affecting larger or more complex poultry operations. These professionals have unique position descriptions that designate their availability to deploy and support national level response. Placing staff in areas of high livestock and poultry density will allow for increased response capacity and close collaboration with State animal health officials and industry partners.

APHIS' National Preparedness and Incident Coordination Center (NPIC) develops animal health emergency management guidelines to protect U.S. animal agriculture through collaborative, science- and risk-based strategies. These guidelines are based on the National Incident Management System and National Response Framework. In 2023, APHIS sustained its animal health readiness capacity by maintaining 5 Incident Management Teams (IMT) of approximately 30 volunteer first-responders per team. At any time, one of these teams is ready to deploy anywhere, at any time, to respond rapidly to animal health disease events in support of incident management. IMT members participate in training and workshops on the Incident Command System, animal disease, and information technology. Many of these trainings and workshops are hosted by the NPIC National Training and Exercise Program (NTEP). The NTEP improves preparedness, mitigation, and response to animal disease emergencies and is informed by national priorities of APHIS' stakeholders. It creates dynamic, real-world learning scenarios to build response capabilities of emergency responders and maintain the Agency's response readiness.

APHIS and the CDC jointly administer the select agents and toxins regulations as the FSAP. Any individual or entity possessing, using, or transferring select agents or toxins must register with APHIS if the agent affects plant or animal health or the CDC if it affects human health. Facilities must meet biosafety requirements to ensure the safety and security of select agents. APHIS and CDC inspect facilities that possess, use, or transfer select agents to ensure regulatory compliance. APHIS' Division of Agricultural Select Agents and Toxins (DASAT) ensures that registered facilities promptly address non-compliances, and DSAT takes corrective actions. DASAT also works with the Federal Bureau of Investigation, which conducts security risk assessments for the program, to evaluate individuals requesting access to select agents and toxins. In addition, FSAP is coordinating with representatives from APHIS and the Agricultural Research Service overseeing the stand-up of the National Bio and Agro-Defense Facility in Kansas to provide guidance on the select agent registration process. DASAT also supports entities during hazardous events to ensure the safety and security of select agents and toxins.

a) An increase of \$656,000 for pay and employee costs.

This increase consists of \$656,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

b) An increase of \$4,000,000 and 26 FTEs for the Ready Response Corps.

APHIS is requesting an increase of \$4 million to establish the Ready Response Corps (RRC) to bolster the Agency's ability to address animal disease threats while continuing to achieve its mission. According to the U.S. Centers for Disease Control and Prevention and the World Organisation for Animal Health, 75 percent of emerging diseases are zoonotic, and most zoonotic diseases originate from animal reservoirs. The ability to quickly tamper down animal diseases prevents the likelihood of disease spread and the ability for the disease to persist in the environment, mutate, and impact multiple species.

For the last decade, the Agency has had approximately 700 veterinarians on staff, 600 of which are housed within APHIS' Veterinary Services unit. While this staffing level supports ongoing work, there is no slack in the system for animal health outbreak responses as was recently seen with highly pathogenic avian influenza (HPAI). The more than 18 months of repeated deployments for HPAI placed a strain on APHIS' workforce, both those that deployed and those who remain to manage the daily workload. With employees on routine deployments, those left behind face increased workloads which places a strain both on those employees and on the industries who depend on APHIS. This increases the risk that deferred activities may pose problems later (ex: deferred surveillance for tuberculosis can allow the disease to spread further before it is detected, ultimately leading to larger and more expensive response activities). Additionally, repeated deployments make it harder for APHIS to hire and retain veterinarians and other skilled positions, especially since the Agency cannot compete with the private sector on salaries. Establishing the RRC and having the ability to compartmentalize our workforce helps alleviate the burden on employees and ensures that daily animal health related activities continue, protecting the health and welfare of U.S. livestock and poultry.

In 2023, APHIS began a pilot of the RRC, hiring 12 animal health professionals to be placed in geographic areas that are at high risk for outbreaks affecting larger or more complex poultry operations, to increase response capacity in those areas. These professionals have unique position descriptions that designate their availability to deploy and support national level response. Building on this concept, a cadre of animal health professionals would be strategically located in areas of high livestock and poultry density as well as in locations where APHIS is likely to send employees on emergency deployment.

The Ready Response Corps' primary mission will be deployments. Between animal health emergencies, these positions would continue to train for emergency response, work with States and industry on biosecurity improvements, emergency response planning, and table-top exercises, and help where the Agency has backlogs of work (ex: supporting the issuance of animal health import and export certifications). Having RRC staff strategically located in areas of high livestock and poultry density will allow for close collaboration with State counterparts and industry to support these activities. The funds requested for 2025, will cover personnel costs, recruitment bonuses, and training and other support costs to start expanding this capacity.

Without this increase, APHIS will have difficulty maintaining the ability to quickly respond to animal health emergencies as the severity, length, and frequency of outbreaks grow. Additionally, it becomes exceedingly difficult to recruit and maintain existing veterinarians and animal health technicians during a prolonged outbreak as the Agency experienced in 2023 with HPAI.

(24) Agriculture Import/Export: An increase of \$280,000 (\$19,292,000 and 84 FTE available in 2024).

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 they negotiate requirements for the worldwide export of U.S. animals and animal products. These requirements are based on international standards, sound scientific principles, and fair-trading practices for animals and animal products. In addition, APHIS sets quarantine, testing, and other requirements under which animals and animal products can be imported or exported. The 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 outlines activities to support aquatic livestock imports and exports through the development of the Aquaculture Business Plan and the National Aquaculture Health Protection and Inspection Act.

In addition, APHIS conducts activities related to the Lacey Act, which prohibits the importation of any plants, with limited exceptions, that are taken or traded in violation of domestic or international laws. The Act requires a declaration for imported shipments of most plants or plant products. A 2016 study by the United Nations Environmental Programme and Interpol estimated the value of illegal logging, including processing, to be between \$50 to \$152 billion dollars, or 10 to 30 percent of the global wood trade. The Lacey Act, as amended, is designed to help combat illegal logging by encouraging importers to research their supply chains and be aware of the laws governing products they purchase in other countries. APHIS' role is to evaluate and implement regulations, provide guidance to importers regarding the declaration, perform compliance checks, provide enforcement agencies with declaration information to assist their investigations, and maintain declaration records.

Imports

APHIS evaluates the animal health status of regions that wish to export animals and/or animal products to the United States. This evaluation process minimizes the risk of introducing animal diseases through importation and aligns with international trade requirements. In 2023, APHIS completed several evaluations and published regulatory actions based on those evaluations in the Federal Register. These include notices to recognize Thailand and North Macedonia as African swine fever-affected regions as well as notices to recognize Ecuador, Gabon, Guinea, Moldova, and Peru to the list of regions that APHIS considers to be affected with highly pathogenic avian influenza.

APHIS also conducts site visits to confirm that a regions' surveillance, prevention, and control measures are sufficient to minimize the likelihood of an introduction of foreign animal diseases into the United States. These included Colombia for foot and mouth disease, as well as Brazil and Panama for Newcastle disease. The Agency continues to ensure that import regulations are effective and science-based and works with U.S. businesses and importers to facilitate safe trade. For example, APHIS worked with States in 2023, to better understand State-level disease control options and how they can support trade.

Exports

To open, re-open, and maintain U.S. access to worldwide export markets, APHIS negotiates science-based conditions with trading partners for various commodities to facilitate trade. In 2023, APHIS negotiated or re-negotiated 105 export protocols for animal products (5 new markets, 86 re-opened markets, 8 expanded markets, and 6 retained markets). To complete export requests, APHIS conducted voluntary inspections of approximately 1,100 U.S. manufacturing facilities to maintain, expand, or open export markets in many countries.

APHIS endorses export certificates for live animals and inedible animal-origin products, documenting the animal health status and facilitating export to all markets. In 2023, APHIS endorsed approximately 347,000 export health certificates for animal products, livestock, poultry, germplasm, and pets. APHIS continued to increase the number of animal health export certificates issued electronically by expanding the system capabilities for the Agency's online Veterinary Export Health Certification System (VEHCS). VEHCS capabilities include digital signature capabilities, multiple user roles, a certificate upload feature, certificate re-issuance, and inclusion of supporting documents and payment information. APHIS continued to expand the number of countries and commodities for which electronic certification is available. APHIS digital endorsement for live animal export certificates is now accepted by 47 countries.

Lacey Act

In 2023, APHIS received more than 1.5 million Lacey Act declarations electronically or on paper (the vast majority were received electronically through the Department of Homeland Security's Customs and Border Protection's Automated Cargo Environment system). Since implementing the 2008 amendments to the Lacey Act, APHIS has added products to the declaration requirement/enforcement schedule in phases. In 2022, APHIS implemented phase six, which expanded the Lacey Act declaration requirement to items such as new wooden pallets and containers, essential oils, and certain musical instruments made of wood, among other items. APHIS began preparing for phase 7, which will cover all remaining non-composite wood products for which declarations are not already required, in 2023. APHIS works with CBP's Regulatory Audit and Office of Trade

to implement compliance surveys for Lacey Act declarations and requirements. In 2023, APHIS and its Federal partners (including other USDA agencies, CBP, U.S. Department of Justice, and the U.S. Fish and Wildlife Service) continued to expand and improve Lacey Act compliance programs by conducting documentation reviews of importers, continuing development of wood identification technologies and considering alternatives to seizing and forfeiting shipments due to the time and cost involved.

Overall, base funding for the Agriculture Import/Export program currently supports salaries and benefits of personnel, contracts, and agreements, as well as other normal operating costs such as travel, supplies, rent, and utilities to support program activities.

a) An increase of \$280,000 for pay and employee costs.

This increase consists of \$280,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

(25) Overseas Technical and Trade Operations program: An increase of \$972,000 (\$25,572,000 and 57 FTE available in 2024).

APHIS helps U.S. farmers, ranchers, and producers export their products to other countries by resolving concerns over animal and plant health issues that affect trade in agricultural products. Exports are crucial to economic viability of U.S. farmers, ranchers, and producers. According to USDA's Economic Research Service, the United States exports 20 percent of its agricultural production. However, agricultural trade is subject to costly disruptions related to animal and plant health issues. APHIS works to continually support economic opportunities by keeping markets open for U.S. agricultural products. 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 to successfully address animal and plant health regulatory issues associated with trade negotiations for new markets and to reopen markets when they are closed or threatened due to pest or disease issues. Highlights of 2023 successes include new market access for U.S. live cattle to Israel worth an estimated \$75 million over the next 5 years and fresh grapefruit to Vietnam worth an estimated \$5 million per year. APHIS also reached an agreement with the European Union for a systems approach for oak logs with veneer, reopening a \$12 million annual market that had been closed for several years (values based on industry and APHIS analysis).

In addressing animal and plant health trade issues, APHIS uses its strong scientific base and team of technical experts located in the United States and abroad to advocate on behalf of U.S. agriculture. This line item supports APHIS' overseas presence in 28 countries, through which APHIS develops and fosters working relationships with its animal and plant health counterparts. These relationships allow APHIS to advance trade priorities and provide in-country support to resolve issues with shipments of U.S. agricultural goods held up in foreign ports of entry. Even for markets that are open to U.S. agricultural products, APHIS must continually address issues to keep trade flowing smoothly. APHIS works with foreign counterparts to clarify or streamline certification requirements, making it easier and less costly for U.S. exporters to move their products overseas. When shipments are held up at foreign ports, APHIS works with its counterparts to resolve the issues and secure the release of the shipments. In 2023, APHIS successfully secured the release of 187 shipments worth approximately \$98 million.

APHIS overseas officials are veterinarians and plant scientists who are knowledgeable about the strengths and weakness of countries' animal and plant health programs and can aid to identify and develop programs that build technical and regulatory capacity in countries and the region. APHIS offers a range of sophisticated technical courses such as basic epidemiology, risk assessment, risk based sampling, and transboundary animal diseases, often in partnership with other Federal agencies including USDA's Foreign Agricultural Service, the U.S. Department of Defense, and the U.S. Department of State. These programs are useful in enhancing our bilateral relationships, encouraging regional dialogue, and promoting a coordinated regional response to pest or disease outbreaks. APHIS also fosters a successful trading environment for U.S. exports by working to ensure that the same rules apply to countries around the world through international standard setting. 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. By supporting scientific decision making internationally and following

international standards when considering what can be imported into the United States, APHIS encourages trading partners to do so as well, helping provide a level playing field for U.S. agricultural exports.

Agricultural trade is essential for U.S. farmers, ranchers, and producers, and APHIS' technical and regulatory trade activities support their export opportunities. In 2025, APHIS will continue to support international trade opportunities for America's animal and plant products while ensuring that U.S. agriculture is safe from pests and diseases.

Overall, base funding for the Overseas Technical and Trade Operations program currently supports salaries and benefits of personnel, contracts, and agreements, and travel, as well as other normal operating costs such as supplies, rent, and utilities to support program activities.

a) An increase of \$190,000 for pay and employee costs.

This increase consists of \$190,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

b) Increase of \$782,000 for rising overseas operational costs related to Overseas Technical and Trade Operations.

APHIS requests an increase to cover rising International Cooperative Administrative Support Services (ICASS) and locally employed (LE) pay costs. Without additional funding, continuing increases to ICASS and LE pay will erode the program's ability to support American agriculture abroad. These costs also impact the Agency's ability to expand coverage in areas with potential for increasing trade, such as Africa and the Middle East, reducing our ability to safeguard U.S. agriculture and safely expand markets for U.S. exports.

c) Designation of a portion of Overseas Technical and Trade Operations as two-year funding and no-year funding to better manage overseas operations and resources.

APHIS is requesting two-year authority to provide necessary flexibility to support overseas operations, including managing delayed repayments of funding that often cross fiscal years (e.g. rent deposits, medical bills that are reimbursed to the agency). In addition, APHIS is requesting no-year authority to provide necessary flexibility to adjust for the impact of fluctuating international exchange rates. These authorities are similar to what is provided to the Foreign Agricultural Service.

(26) Animal Welfare program: An increase of \$866,000 (\$37,506,000 and 260 FTE available in 2024).

The Animal Welfare Act (AWA) requires animals bred for commercial sale, used in research, transported commercially, or exhibited to the public receive Federal standards of care and treatment. APHIS' Animal Welfare Program ensures the humane care and treatment of animals covered by the AWA through inspection, learning opportunities, and enforcement actions. Since the AWA became law in 1966, APHIS has protected millions of regulated animals used in research, exhibition, and the pet trade as well as those transported in commerce.

Before issuing a license, APHIS works closely with potential licensees to ensure they understand the requirements of the AWA regulations and standards and will be able to maintain compliance after obtaining a license from the Agency. After obtaining a license or registration, the Agency determines on-going compliance by conducting unannounced inspections. During these inspections, APHIS officials examine and inspect all areas of animal care and treatment covered under the AWA. The Agency reviews the animals, premises, facilities, husbandry practices, program of veterinary care, records, and animal handling procedures. APHIS confirms that the animals receive adequate housing, transport, veterinary care, and meet husbandry standards as described in the AWA. When APHIS inspectors discover conditions or records that are noncompliant with AWA regulations, the Agency may establish a deadline for corrective action and increase frequency of unannounced inspections to determine whether the facility made the necessary modifications. Continued, serious noncompliance may warrant an investigation that can result in sanctions ranging from monetary penalties to suspension or revocation of the facility's license, after notice and an opportunity for a hearing.

Whenever possible, APHIS takes a coordinated and collaborative approach to improve the welfare of animals. Non-regulatory methods such as education, training, and outreach to stakeholders allows the Agency to convey critical and current animal welfare information. 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. Without this program, the Agency would be unable to enforce the AWA, and the health and welfare of millions of animals would be severely compromised.

Overall, base funding for the Animal Welfare program currently supports salaries and benefits of personnel and travel, as well as other normal operating costs such as contracts, supplies, and equipment to support program activities.

- a) An increase of \$866,000 for pay and employee costs.

This increase consists of \$866,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

(27) Horse Protection program: An increase of \$70,000 (\$4,096,000 and 21 FTE available in 2024).

APHIS' Horse Protection program strives to eliminate the cruel and inhumane practice of soring, which involves applying caustic chemicals and/or mechanical devices to a horse's pasterns, causing the horse to experience pain or distress while walking or moving. Soring changes the gait of a horse so that the animal steps higher, allowing its rider to gain a competitive edge at horse events. APHIS has the Federal responsibility to uphold the Horse Protection Act (HPA), which prohibits sore horses from being shown, sold, or transported.

There are an estimated 200,000 Tennessee Walking and Racking Horses in the United States, with potential show winnings reaching as high as \$2.5 million. The management of horse shows, exhibitions, sales, and auctions have statutory responsibility under the HPA to prevent unfair competition and must identify and disqualify sored horses prior to participating in HPA-covered events. USDA-certified horse industry organizations train and license third party inspectors, known as Designated Qualified Persons (DQPs). DQPs conduct horse inspections at horse shows, exhibitions, sales, and auctions affiliated with these organizations. APHIS attends a select number of HPA-covered events each year to observe DQP performance and inspect horses for HPA compliance. APHIS' presence at horse show events serves as a deterrent; without this program, the Agency would expect to see an increase in the abusive practice of soring. In addition to inspection of horses, APHIS uses available technologies, such as thermography and iris scanning devices. Thermographic pictures of an animal can reveal areas that are excessively warm or cool—both indicating abnormalities and the need for closer evaluation. Iris scanning allows inspectors to verify the identity of a horse, similar to a fingerprint. The Agency will continue to incorporate this technology during the inspection process in 2025.

Overall, base funding for the Horse Protection program currently supports salaries and benefits of personnel, and travel, as well as other normal operating expenses such as necessary contracts, agreements, and equipment for completing programmatic functions.

- a) An increase of \$70,000 for pay and employee costs.

This increase consists of \$70,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

(28) APHIS Information Technology Infrastructure: No Change (\$4,251,000 and 0 FTE available in 2024).

The APHIS Information Technology Infrastructure (AITI) program provides funding for the hardware, software (including licensing and support costs), and telecommunications infrastructure that gives the agency automation tools, secure Internet access, and access to mission-critical programs and applications. Funding for this program supports the stable and secure information infrastructure for those mission-critical requirements and the day-to-day business of APHIS, to include interactions with the public, emergency services, and scientific operations. The AITI priorities are to continually improve sharing of information across the Agency and Federal partners; improve coordination and accessibility of information by the public and other stakeholders; sustain automated

processes and electronic resources available to enable APHIS employees to provide day-to-day services; support automation and data needed to meet emergency response requirements; and improve APHIS' cyber-security posture.

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's 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.

In support of the Federal Information Technology Acquisition Reform Act and the USDA Data Center Optimization Initiative, APHIS completed migration of all business applications from on-site data centers to remote cloud services as of April 2019. This migration decreased the Agency's carbon footprint by using a more energy efficient infrastructure, improved data management, increased the speed of application development, and improved cost control measures.

APHIS continues to review the security posture for the APHIS Enterprise Infrastructure workstations, servers, network components, and major applications on an annual basis to ensure all systems are kept current with the latest security patches and system security configurations. In 2022 and 2023, the AITI program maintained the current version of National Institute of Standards and Technology and Federal Information Security Management Act testing standards and supported audits and inspections on all High Value Assets that dramatically improved the agency's security posture by reducing vulnerabilities. In addition, the APHIS IT security monitoring system continues to track and mitigate malicious attempt of intrusion by foreign actors as well as the improper use of personally identifiable information data stored on APHIS systems, helping to protect confidential information that could potentially identify a specific individual. In addition to protecting our systems from malicious access, accessibility to IT tools is vital to the operations of the Agency, thus the AITI program helps to sustain important identity management services.

In 2024, AITI will continue to maintain its 99.99 percent availability for its key computing systems ensuring increased access to the public and other stakeholders. In addition, AITI will continue to improve its cybersecurity posture, enhance the customer experience by supporting modernization of critical systems, and support data management standards that improve our ability to rapidly detect and respond to animal and plant emergencies working together with other Federal and Industry partners.

Overall, AITI expenditures fund day-to-day operations for the Agency's IT infrastructure, including software license renewals and support, as well as other normal operating costs, such as supplies and equipment.

(29) Physical Operational Security program: An increase of \$13,000 (\$5,182,000 and 4 FTE available in 2024).

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. The 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. These measures protect APHIS employees, as well as visitors and stakeholders from harm, acts of terrorism, and violence. In addition, this program supports part of 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.

APHIS provides numerous types of security training, using a variety of formats. This includes providing training to more than 1,650 agency employees annually, including seminars relating to active shooter response, situational awareness, scenario-based role playing, illegal drugs, self-defense, terrorism, local crime trends, and travel safety. In addition, the program also provides workplace violence training seminars and multiple security briefings for employees who work along the border or in foreign countries. To enhance preparedness and response, APHIS continues its required on-line and classroom based active shooter training for all employees and live active shooter training exercises at Agency offices across the United States. This scenario-based training provides a dynamic, interactive exercise for APHIS personnel, and utilizes the participation of local law enforcement, fire, and emergency medical service personnel. The APHIS active shooter training plan and

materials are evaluated by 40 law enforcement agencies, as well as one of the nation's leading active shooter private consulting firms.

APHIS investigates and assesses all reported internal and external threats directed at Agency facilities, programs, and personnel. These threats include, but are not limited to, death threats, terrorist threats, and assaults. APHIS also works to ensure employee safety in the same manner, at or near the Mexican border, and at APHIS offices in Mexico, Panama, and Guatemala. Specifically, near the Mexican border, the program investigates threats and responds to requests for protection for APHIS employees, such as veterinarians and inspectors, who enforce regulations in challenging environments.

Additionally, APHIS ensures the safety of its employees who enforce the Animal Welfare Act (AWA) and Horse Protection Act (HPA). APHIS security specialists investigate threats and respond to requests for protection throughout the country for APHIS veterinarians and inspectors who are enforcing regulations in difficult situations. Program personnel also worked across the Agency to develop standard operating procedures for security support for AWA and HPA inspections and investigations.

The Homeland Security Presidential Directive-12 and Interagency Security Committee (ISC) directives create the standard for secure and reliable forms of identification for facility and network access and compliance regarding physical security at Federal facilities. In support of this standard, APHIS completes physical security assessments and reevaluates previous facility assessments using the updated ISC criteria and USDA reporting format. In addition, the program is responsible for issuing, activating, or updating new or renewed personal identification verification cards to approximately 8,900 APHIS, USDA and other federal personnel and contractors annually.

APHIS also works with other USDA agencies, the U.S. Department of Justice, U.S. Department of Homeland Security, the U.S. Department of State, and local law enforcement agencies to ensure that the appropriate organization takes the lead, contributes to program costs, and integrates security where employees are co-located overseas. APHIS maintains a presence overseas to facilitate agricultural trade and monitor pest and disease threats. The Security Embassy Construction Counterterrorism Act's Capital Security Cost Sharing Program requires the Agency to help fund the construction of new Embassy compounds based on the number of authorized positions. In 2023, the program will continue to work with the U.S. Department of State to establish a security baseline for APHIS facilities overseas and ensure that mission operations are protected from disruption and degradation.

Overall, base funding for the POS program currently supports contracts, programmatic agreements, and personnel costs, as well as other normal operating expenses such as travel and supplies. In addition, this program supports the mandatory cost share with the Department of State for the Capital Security Cost-Sharing program.

- a) An increase of \$13,000 for pay and employee costs.

This increase consists of \$13,000 in 2025 pay and employee costs, for continuation of the 2024 pay cost increase of 5.2 percent and the 2025 pay cost increase of 2 percent.

(30) Rent and Department of Homeland Security (DHS) Security Payments: A decrease of \$4,000,000 (\$42,567,000 available in 2024).

APHIS personnel are in every State working to carry out our mission and the Rent and DHS Security Payments program assists the Agency in strategically managing the payment portfolio of approximately 220 General Services Administration (GSA) leases and DHS security payments, as well as other leased, owned, and agreement funded facilities. For example, the funding for this program ensures that APHIS employees can effectively and efficiently carry out all 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. APHIS continually identifies opportunities to consolidate, reduce, and/or transform spaces to manage space as effectively and efficiently as possible. Without funding for rent and security payments, APHIS would have to cover these costs by reducing program activities, decreasing levels of service, and diverting fiscal resources from other appropriated line items.

In 2023, the program will continue to ensure mission operations while effectively managing its space portfolio.

Overall, base funding for the program currently maintains rent payments and security agreements in support of program activities.

- a) A decrease of \$4,000,000 from consolidating space in the Riverdale, Maryland headquarters building.

APHIS headquarters is located in Riverdale, Maryland, which occupies all six floors of a GSA-owned building. The Agency will work in 2024 to consolidate space in the Riverdale building by moving all employees to three floors with the first floor being a combination of office space and shared community space, freeing up space for GSA to rent the remaining three floors to another tenant. APHIS estimates this space consolidation will save an estimated \$4,000,000 in rent costs annually starting in 2025, not including building and renovation costs required to relocate the current staff.

(31) Congressionally Directed Spending: A decrease of \$9,552,000 (\$9,552,000 available in 2024).

The 2023 Appropriations Act, Consolidated, provided APHIS with funding to support nine Congressionally Directed Spending projects across seven States. Specifically, these projects include monitoring ticks and tick-borne pathogens in Connecticut; invasive pest management for nursery exports in Hawaii; West Nile virus research in Louisiana; tick-borne disease prevention in Maine; One Health surveillance, fish-eating bird control, and wild hog control efforts in Mississippi; enhancing the capacity at the New Hampshire Veterinary Diagnostic Laboratory; and wild horse management in Nevada.

PROPOSED LEGISLATION

Agricultural Quarantine Inspection

Current legislative authority to be amended: The Food, Agriculture, Conservation, and Trade (FACT) Act of 1990 (21 U.S. Code § 136a).

This proposal requests a statutory change to provide authority to APHIS to maintain its Agricultural Quarantine Inspection (AQI) user fee account balance. This change will have no new impacts on AQI user fee collection levels, budget authority, or outlays; rather, it would allow APHIS to continue managing the program as it had before previous authorities expired.

Legislative Language Requested:

Subsection (a)(1) of section 2509 of the Food, Agriculture, and Conservation Act (21 U.S.C. 136a) is amended by striking subparagraph (C) and inserting—

“(C) to maintain a reasonable balance in the Department of Agriculture accounts described in paragraph (6).”

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND FTEs**Table APHIS-12. Discretionary Geographic Breakdown of Obligations and FTEs (thousands of dollars, FTEs)**

State/Territory/Country	2022		2023		2024		2025	
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE
Alabama	\$7,344	28	\$8,356	32	\$8,425	34	\$8,412	35
Alaska.....	992	3	814	3	833	3	810	3
Arizona.....	9,631	72	11,234	76	11,694	83	11,316	84
Arkansas.....	5,130	26	5,432	25	6,039	29	5,074	29
California.....	77,344	112	71,805	110	121,154	131	88,212	133
Colorado.....	103,884	354	128,094	373	143,990	410	113,529	416
Connecticut	2,154	6	2,047	12	2,063	13	2,062	13
Delaware	21,431	12	1,409	6	1,427	7	1,414	7
Florida	42,932	213	52,066	214	56,732	236	53,654	240
Georgia.....	10,008	42	10,366	49	10,458	54	10,432	55
Hawaii.....	26,578	291	26,976	307	27,294	340	27,294	345
Idaho.....	8,574	57	9,137	56	9,302	61	9,136	62
Illinois	4,240	27	5,528	29	6,095	33	5,200	34
Indiana.....	10,914	26	6,674	26	7,358	31	6,277	32
Iowa.....	158,429	324	134,557	348	160,129	386	118,272	392
Kansas	6,553	26	13,159	34	13,937	36	12,777	37
Kentucky	10,310	30	5,650	31	5,738	34	5,659	34
Louisiana.....	6,389	29	6,888	31	6,939	33	6,939	34
Maine.....	1,959	9	3,827	9	3,858	10	3,852	10
Maryland	267,642	718	243,876	735	248,514	817	233,782	833
Massachusetts.....	15,544	86	16,778	89	16,907	96	16,899	98
Michigan	8,745	48	7,682	50	8,193	56	7,726	57
Minnesota.....	139,493	188	72,695	182	84,326	204	65,432	207
Mississippi.....	9,248	41	14,024	45	14,845	49	13,624	49
Missouri.....	21,163	58	18,109	58	21,039	65	16,277	66
Montana.....	11,855	39	9,809	42	10,024	47	9,782	48
Nebraska.....	23,001	19	16,599	18	24,479	23	11,269	24
Nevada.....	3,774	19	3,589	19	3,616	21	3,615	21
New Hampshire.....	17,215	20	17,458	22	17,591	24	17,585	24
New Jersey	4,777	33	5,262	28	5,318	30	5,289	31
New Mexico.....	5,520	30	5,921	36	5,964	39	5,964	39
New York.....	33,167	132	36,984	139	38,504	152	37,474	154
North Carolina.....	47,176	176	60,392	179	62,987	197	60,016	199
North Dakota.....	7,317	16	6,967	18	9,232	19	5,462	19
Ohio.....	24,649	74	41,968	77	56,169	91	29,512	93
Oklahoma	6,646	41	6,986	38	7,065	42	7,018	43
Oregon.....	5,713	24	5,552	21	5,609	25	5,582	25
Pennsylvania	55,900	87	32,134	88	42,611	105	25,480	107
Rhode Island.....	1,746	8	1,264	1	1,275	2	1,273	2
South Carolina.....	15,547	38	16,378	43	16,518	47	16,485	48
South Dakota.....	53,049	17	35,651	15	55,146	21	22,395	21
Tennessee	9,355	43	13,648	53	16,285	64	11,966	65
Texas	66,176	375	75,253	347	85,626	386	80,963	392
Utah.....	18,322	55	36,607	49	52,763	59	25,710	60
Vermont.....	1,528	10	1,728	9	1,741	10	1,740	10
Virginia	11,693	48	18,123	64	19,355	71	17,484	72
Washington	6,314	27	12,223	31	15,418	37	10,132	38
West Virginia	3,041	17	3,053	18	3,076	21	3,076	22

2025 USDA EXPLANATORY NOTES – ANIMAL AND PLANT HEALTH INSPECTION SERVICE

State/Territory/Country	2022		2023		2024		2025	
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE
Wisconsin.....	36,341	27	18,011	27	24,282	32	13,829	33
Wyoming.....	5,684	30	4,639	24	4,676	27	4,672	27
U.S. TERRITORIES:								
District of Columbia.....	17,880	71	31,489	77	32,547	82	31,140	85
Guam.....	614	3	369	2	372	2	372	2
Puerto Rico.....	23,438	147	16,415	158	16,648	160	16,645	160
Virgin Islands.....	1,600	4	1,199	5	1,208	5	1,208	5
INTERNATIONAL REGIONS								
AFRICA:								
Egypt.....	906	2	1,014	2	1,021	2	1,021	2
Senegal.....	289	-	339	-	342	-	342	-
South Africa.....	574	1	740	1	745	1	745	1
Other.....	-	-	138	-	139	-	139	-
ASIA/PACIFIC:								
China.....	1,183	2	1,380	2	1,390	2	1,390	2
Japan.....	1,622	3	1,566	3	1,578	3	1,578	3
South Korea.....	503	-	781	-	787	-	787	-
Other.....	4,070	7	4,260	7	4,291	7	4,291	7
CARIBBEAN:								
Dominican Republic.....	70,391	4	10,464	9	11,541	12	10,541	12
Haiti.....	4,850	-	-	-	-	-	-	-
Other.....	211	-	226	-	228	-	228	-
CENTRAL AMERICA:								
Belize.....	-	-	-	-	1,000	-	-	-
Costa Rica.....	-	-	-	-	4,000	-	-	-
El Salvador.....	-	-	-	-	1,000	-	-	-
Guatemala.....	24,840	4	25,415	3	33,602	4	30,602	4
Honduras.....	-	-	-	-	1,000	-	-	-
Nicaragua.....	-	-	-	-	1,000	-	-	-
Panama.....	15,824	5	16,962	4	67,087	4	43,287	4
Other.....	496	-	487	-	491	-	491	-
EUROPE/NEAR EAST:								
Austria.....	351	-	373	-	376	-	376	-
Belgium.....	1,701	2	1,910	2	1,924	2	1,924	2
Other.....	1,438	3	1,117	2	1,125	2	1,125	2
NORTH AMERICA:								
Canada.....	-	-	2	-	2	-	2	-
Mexico.....	8,491	3	8,136	4	9,196	4	8,196	4
SOUTH AMERICA:								
Brazil.....	657	1	779	2	785	2	785	2
Chile.....	473	-	202	-	203	-	203	-
Other.....	1,583	2	2,064	2	2,079	2	2,079	2
Obligations	1,636,121	4,495	1,491,212	4,622	1,780,327	5,140	1,437,330	5,218
Lapsing Balances.....	835	536	981	478	-	-	-	-
Bal. Available, EOY.....	927,328	879	1,016,169	879	620,196	794	341,237	730
Total, Available.....	2,564,284	5,910	2,508,362	5,979	2,400,523	5,934	1,778,567	5,948

Table APHIS-13. Mandatory Geographic Breakdown of Obligations and FTEs (thousands of dollars, FTEs)

State/Territory/Country	2022		2023		2024		2025	
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE
Alabama	\$2,194	15	\$2,164	13	\$2,235	14	\$2,057	14
Alaska.....	120	-	129	-	133	-	123	-
Arizona.....	2,560	13	3,371	16	3,481	18	3,204	17
Arkansas.....	1,899	10	2,201	11	2,273	12	2,092	12
California.....	38,876	86	44,706	98	46,172	109	42,495	105
Colorado.....	7,315	40	9,521	49	9,833	54	9,050	52
Connecticut	433	2	780	5	805	5	741	5
Delaware.....	1,571	5	1,673	4	1,728	4	1,591	4
Florida	18,794	132	23,832	141	24,613	157	22,653	151
Georgia.....	10,960	58	12,072	57	12,468	64	11,475	61
Hawaii.....	6,621	30	6,791	27	7,014	29	6,455	28
Idaho.....	1,053	3	1,586	3	1,638	3	1,507	3
Illinois.....	2,353	14	2,658	16	2,745	18	2,527	17
Indiana.....	931	2	1,183	2	1,222	2	1,124	2
Iowa.....	9,701	2	11,160	3	11,526	3	10,609	3
Kansas.....	392	1	589	2	608	2	560	2
Kentucky.....	1,004	4	927	3	958	3	881	3
Louisiana.....	1,512	9	1,463	9	1,511	10	1,391	9
Maine.....	477	1	925	1	955	1	879	1
Maryland.....	79,652	302	75,842	315	78,330	350	72,092	337
Massachusetts.....	1,551	8	2,893	11	2,988	12	2,750	12
Michigan.....	2,330	11	2,962	13	3,059	14	2,815	14
Minnesota.....	5,989	38	10,452	40	10,795	45	9,935	43
Mississippi.....	1,266	6	1,578	4	1,630	4	1,500	4
Missouri.....	3,883	7	1,667	6	1,722	6	1,584	6
Montana.....	360	2	653	2	675	2	621	2
Nebraska.....	810	4	389	3	402	3	370	3
Nevada.....	750	1	369	1	381	1	351	1
New Hampshire.....	332	0	225	0	233	0	214	0
New Jersey.....	5,851	23	4,480	23	4,627	25	4,259	24
New Mexico.....	398	2	653	4	674	4	620	4
New York.....	26,484	44	25,197	45	26,024	50	23,951	48
North Carolina.....	22,431	94	31,364	98	32,393	108	29,813	104
North Dakota.....	296	1	560	2	579	2	533	2
Ohio.....	1,235	6	2,892	5	2,987	6	2,749	5
Oklahoma.....	1,940	8	2,047	7	2,114	7	1,945	7
Oregon.....	1,700	3	2,442	4	2,522	5	2,321	5
Pennsylvania.....	5,672	23	6,150	21	6,352	23	5,846	22
Rhode Island.....	148	-	253	-	261	-	241	-
South Carolina.....	2,098	14	3,099	14	3,200	16	2,945	15
South Dakota.....	176	0	1,044	0	1,078	1	992	0
Tennessee.....	1,687	0	2,153	4	2,223	5	2,046	5
Texas.....	13,222	70	16,528	73	17,070	81	15,710	78
Utah.....	154	0	308	1	318	1	293	1
Vermont.....	604	1	622	1	642	2	591	2
Virginia.....	22,888	18	18,081	8	18,674	9	17,187	9
Washington.....	7,630	26	8,065	22	8,330	24	7,666	23
West Virginia.....	1,205	5	976	3	1,008	4	927	4
Wisconsin.....	1,250	3	1,400	2	1,446	2	1,331	2
Wyoming.....	147	1	158	1	163	2	150	2
U.S. TERRITORIES:								
District of Columbia.....	5,315	20	6,029	16	6,227	18	5,731	17
Guam.....	824	3	743	3	768	3	707	3

State/Territory/Country	2022		2023		2024		2025	
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE
Puerto Rico.....	4,328	55	6,971	53	7,200	59	6,627	57
Virgin Islands.....	-	-	223	2	230	2	212	2
INTERNATIONAL REGIONS:								
AFRICA:								
Other.....	-	-	39	-	40	-	37	-
ASIA/PACIFIC:								
China.....	-	-	40	-	41	-	38	-
Japan.....	179	-	173	-	179	-	164	-
South Korea.....	-	-	2	-	2	-	2	-
Other.....	-	-	11	-	11	-	10	-
CARIBBEAN:								
Dominican Republic.....	147	-	80	-	83	-	76	-
Jamaica.....	-	-	2	-	2	-	2	-
Other.....	17	-	-	-	-	-	-	-
CENTRAL AMERICA:								
Costa Rica.....	-	-	506	-	523	-	481	-
Guatemala.....	-	-	376	-	388	-	357	-
Other.....	310	-	-	-	-	-	-	-
EUROPE/NEAR EAST:								
France.....	-	-	4	-	4	-	4	-
Germany.....	-	-	65	-	67	-	62	-
Other.....	155	-	127	-	131	-	121	-
NORTH AMERICA:								
Canada.....	75	-	169	-	175	-	161	-
Mexico.....	1,665	-	1,442	-	1,489	-	1,371	-
SOUTH AMERICA:								
Argentina.....	-	-	7	-	7	-	7	-
Brazil.....	44	-	103	-	106	-	98	-
Chile.....	-	-	36	-	37	-	34	-
Colombia.....	-	-	75	-	77	-	71	-
Peru.....	-	-	75	-	77	-	71	-
Other.....	88	-	-	-	-	-	-	-
Obligations.....	336,052	1,230	370,532	1,266	382,685	1,405	352,208	1,353
Lapsing Balances.....	793	15	865	6	-	-	-	-
Bal. Available, EOY.....	344,775	439	323,795	387	197,291	387	196,209	387
Total, Available.....	681,619	1,684	695,192	1,659	579,976	1,792	548,417	1,740

Table APHIS-14. Mandatory Geographic Breakdown of Obligations and FTEs for American Rescue Plan Funding (thousands of dollars, FTEs)

State/Territory/Country	2022		2023		2024		2025	
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE
Alabama	\$38	-	\$1,010	-	-	-	-	-
Alaska.....	-	-	30	-	-	-	-	-
Arizona.....	5	-	6,061	1	-	-	-	-
Arkansas.....	3	-	2,013	-	-	-	-	-
California.....	107	1	3,608	1	-	-	-	-
Colorado.....	10,974	4	46,934	20	-	-	-	-
Connecticut	23	-	1,746	-	-	-	-	-
Delaware	2	-	2,003	-	-	-	-	-
Florida	-	-	3,228	-	-	-	-	-
Georgia.....	-	-	4,750	-	-	-	-	-
Hawaii.....	-	-	1,002	-	-	-	-	-
Idaho.....	2	-	1	-	-	-	-	-
Illinois	70	-	1,125	1	-	-	-	-
Indiana.....	36	-	4,054	1	-	-	-	-
Iowa.....	1,236	2	6,024	9	-	-	-	-
Kansas	63	1	1,092	-	-	-	-	-
Kentucky	-	-	2,033	-	-	-	-	-
Louisiana.....	52	-	1,001	-	-	-	-	-
Maine.....	28	-	392	1	-	-	-	-
Maryland	295	3	34,825	8	-	-	-	-
Massachusetts.....	190	1	739	1	-	-	-	-
Michigan	13	-	1,013	-	-	-	-	-
Minnesota.....	650	3	2,496	4	-	-	-	-
Mississippi.....	-	-	1,050	-	-	-	-	-
Missouri.....	24,106	1	12,612	1	-	-	-	-
Montana.....	1	-	2,661	1	-	-	-	-
Nebraska.....	-	-	1,074	1	-	-	-	-
Nevada.....	-	-	28	-	-	-	-	-
New Hampshire.....	14	-	44	-	-	-	-	-
New Jersey	28	-	1,034	-	-	-	-	-
New Mexico.....	-	-	1,000	-	-	-	-	-
New York.....	73	1	4,519	1	-	-	-	-
North Carolina.....	40	-	11,035	1	-	-	-	-
North Dakota.....	4	-	1,007	-	-	-	-	-
Ohio.....	29	-	2,550	-	-	-	-	-
Oklahoma.....	0	-	1,001	-	-	-	-	-
Oregon.....	23	-	1,920	-	-	-	-	-
Pennsylvania	42	-	7,538	-	-	-	-	-
Rhode Island.....	-	-	0	-	-	-	-	-
South Carolina.....	-	-	1,008	-	-	-	-	-
South Dakota.....	9	-	3,161	-	-	-	-	-
Tennessee.....	25	-	1,055	-	-	-	-	-
Texas	141	1	9,391	-	-	-	-	-
Utah.....	4	-	2,237	-	-	-	-	-
Vermont.....	64	-	129	1	-	-	-	-
Virginia	9	-	9,081	-	-	-	-	-
Washington	-	-	2,613	1	-	-	-	-
West Virginia	25	-	1,034	-	-	-	-	-
Wisconsin.....	118	1	6,614	1	-	-	-	-
Wyoming.....	-	-	1,000	-	-	-	-	-
U.S. TERRITORIES:								
District of Columbia.....	4,675	5	10,148	3	-	-	-	-
Guam.....	-	-	6	-	-	-	-	-

State/Territory/Country	2022		2023		2024		2025	
	Actual	FTE	Actual	FTE	Estimated	FTEEstimated	Estimated	FTE
Puerto Rico.....	79	-	-	-	-	-	-	-
INTERNATIONAL REGIONS								
EUROPE/NEAR EAST:								
France.....	-	-	16,814	-	-	-	-	-
Italy	-	-	5,000	-	-	-	-	-
NORTH AMERICA:								
Mexico.....	-	-	35	-	-	-	-	-
Obligations	43,296	23	245,577	58	-	-	-	-
Lapsing Balances	-	-	-	-	-	-	-	-
Bal. Available, EOY	256,704	312	74	-	74	-	74	-
Total, Available.....	300,000	335	245,651	58	74	-	74	-

CLASSIFICATION BY OBJECTS**Table APHIS-15 Discretionary Classification by Objects (thousands of dollars)**

Item No.	Item	2022 Actual	2023 Actual	2024 Estimated	2025 Estimated
	Personnel Compensation:				
	Washington D.C.	\$90,336	\$94,223	\$96,224	\$98,224
	Personnel Compensation, Field	302,428	315,444	321,945	334,945
11	Total personnel compensation	392,764	409,667	418,169	433,169
12	Personal benefits	150,370	163,853	166,881	168,881
13.0	Benefits for former personnel	1,068	492	492	493
	Total, personnel comp. and benefits	544,202	574,012	585,542	602,543
	Other Objects:				
21.0	Travel and transportation of persons	21,702	28,753	36,503	33,503
22.0	Transportation of things	2,900	3,662	3,787	3,837
23.1	Rental payments to GSA	39,659	40,140	40,265	36,265
23.2	Rental payments to others	7,865	7,626	7,701	7,901
23.3	Communications, utilities, and misc. charges	9,521	9,793	9,933	10,133
24.0	Printing and reproduction	580	842	872	912
25.1	Advisory and assistance services	327,570	266,818	487,966	389,581
25.2	Other services from non-Federal sources	103,714	68,269	77,134	73,134
25.3	Other goods and services from Federal sources	124,078	93,107	102,469	94,469
25.4	Operation and maintenance of facilities	54	965	984	834
25.5	Research and development contracts	2,452	3,778	3,854	2,654
25.6	Medical Care	58	54	56	56
25.7	Operation and maintenance of equipment	29,063	61,690	64,924	61,924
26.0	Supplies and materials	50,308	43,202	54,066	50,266
31.0	Equipment	27,765	48,070	59,032	54,732
32.0	Lands and Structures	16	1,023	1,044	1,044
41.0	Grants, subsidies, and contributions	68	7,329	7,476	7,226
42.0	Insurance Claims and Indemnities	344,541	232,072	236,714	6,308
43.0	Interest and Dividends	5	5	5	6
	Total, Other Objects	1,091,919	917,200	1,194,785	834,787
99.9	Total, new obligations	1,636,121	1,491,212	1,780,327	1,437,330
	DHS Building Security Payments (included in 25.3)	\$6,566	\$7,990	\$8,150	\$8,313
	Information Technology Investments:				
	Major Investment 1				
	Animal Disease Traceability Information System (ADTIS)				
11	External Labor (Contractors)	\$4,204	\$2,750	\$800	\$824
25.2	Outside Services (Consulting)	150	30	770	794
	Total Major Investment 1	4,354	2,780	1,570	1,618
	Major Investment 2				
	Certif, Accred, Reg, Permitting & Other Lics (CARPOL)				
11	Internal Labor	-	31	31	32
	External Labor (Contractors)	12,470	12,938	8,846	9,110
25.2	Outside Services (Consulting)	2,030	48	132	136
	Total Major Investment 2	14,500	13,017	9,009	9,278
	Major Investment 3				
	National Bio and Agro Defense Facility (NBAF)				
11	Internal Labor	617	-	-	-
	External Labor (Contractors)	4,223	-	4,300	4,300
25.2	Outside Services (Consulting)	9,810	3,229	3,022	4,545
	Total Major Investment 3	14,650	3,229	7,322	8,845
	Mission Area Non-Major Investment Totals				
	Mission Area Non-Major Investment Totals	49,889	50,669	66,368	49,119
	Mission Area Standard Investment Totals	63,077	89,629	61,132	57,976
25.3	Mission Area WCF Transfers	63,811	56,313	49,989	51,639
	Total Non-Major Investment	176,777	196,611	177,489	158,734
	Total IT Investments	210,281	215,637	195,390	178,475
	Cybersecurity				
	Identify	n/a	\$1,681	\$1,011	\$1,061
	Protect	n/a	2,218	1,950	2,048

Item No.	Item	2022 Actual	2023 Actual	2024 Estimated	2025 Estimated
	Detect	n/a	50	51	53
	Respond	n/a	100	101	106
	Recover	n/a	42	44	46
	Total Cybersecurity	-	4,091	3,157	3,314
	Position Data:				
	Average Salary (dollars), ES Position	\$191,744	\$198,937	\$199,136	\$199,335
	Average Salary (dollars), GS Position	\$93,410	\$97,459	\$97,556	\$97,654
	Average Grade, GS Position	10.9	10.9	10.9	10.9

Table APHIS-16 Mandatory Classification by Objects (thousands of dollars)

Item No.	Item	2022 Actual	2023 Actual	2024 Estimated	2025 Estimated
	Personnel Compensation:				
	Washington D.C.	\$26,079	\$31,294	\$27,186	\$28,002
	Personnel Compensation, Field	87,306	104,767	107,746	110,978
11	Total personnel compensation	113,385	136,062	134,932	138,980
12	Personal benefits	49,160	45,719	43,773	44,648
13.0	Benefits for former personnel	200	56	56	
	Total, personnel comp. and benefits	162,745	181,837	178,761	183,628
	Other Objects:				
21.0	Travel and transportation of persons	2,336	5,472	5,027	4,577
22.0	Transportation of things	323	325	294	297
23.1	Rental payments to GSA	4,351	5,459	6,458	6,523
23.2	Rental payments to others	9,482	9,895	10,895	11,004
23.3	Communications, utilities, and misc. charges	3,114	4,638	5,629	5,685
24.0	Printing and reproduction	61	97	96	97
25.1	Advisory and assistance services	108,907	290,911	114,221	99,236
25.2	Other services from non-Federal sources	15,102	13,235	13,080	7,870
25.3	Other goods and services from Federal sources	56,092	31,927	19,638	12,219
25.4	Operation and maintenance of facilities	3	312	260	262
25.5	Research and development contracts	86	12,295	-	-
25.6	Medical Care	35	-	-	-
25.7	Operation and maintenance of equipment	6,999	36,365	14,924	8,273
26.0	Supplies and materials	4,905	13,383	6,707	6,274
31.0	Equipment	4,797	9,069	5,610	5,166
32.0	Lands and Structures	9	875	875	884
42.0	Insurance Claims and Indemnities	1	12	13	14
43.0	Interest and Dividends	-	2	-	-
	Total, Other Objects	216,603	434,273	203,923	168,579
99.9	Total, new obligations	379,348	616,109	382,685	352,208
	DHS Building Security Payments (included in 25.3)	\$1,002	\$879	\$949	\$1,025

STATUS OF PROGRAMS**SAFEGUARDING AND EMERGENCY PREPAREDNESS/RESPONSE***Current Activities*

American agriculture faces many threats from foreign and domestic pests and diseases which have the potential to negatively impact animal and plant agricultural production, trade, and the economy. APHIS monitors and responds to potential diseases of livestock and wildlife, invasive species, 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 Federal, State, Tribal and industry partners to conduct animal and plant 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. APHIS 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 to support plant protection programs and cooperators at the State, national, and international levels. APHIS also develops methods to control animals and pests that are detrimental to agriculture, wildlife, and public safety.

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 animal and plant pests and diseases. APHIS also actively engages State, Tribal, and local governments, and industries to advance their emergency preparedness and response capabilities.

APHIS conducts operations to ensure the humane care and treatment of vulnerable animals covered under the Animal Welfare Act and the Horse Protection Act. The Agency also balances a regulatory system that safeguards agriculture while fostering innovative research and development in the field of biotechnology.

Selected Examples of Recent Progress - Animal Health:**1. Animal Health Technical Services**

APHIS' Animal Health Technical Services develops, enhances, and maintains tools for acquiring and managing information vital for improving global market access for U.S. livestock and animal products. Incorporating national surveillance standards into data management applications allows the program to compile animal health information nationally, thus leveraging the work of animal health professionals nationwide to meet local, State, and national veterinary health objectives. The National Veterinary Accreditation Program (NVAP) trains private veterinarians to help producers meet export requirements and disease program standards. Ultimately, this allows U.S. animals and animal products to compete in the global economy.

Animal Disease Traceability (ADT)

The national ADT framework allows Federal, State, Tribal, and private animal health professionals to work together to identify diseased animals, quickly trace their movements, and control disease spread to protect the livestock industry, whose production value was approximately \$149 billion in 2022 (National Agricultural Statistics Service, USDA). The ADT framework enables animal health officials to trace an animal from the location of official identification to the animal's last location, which is often the termination point or slaughter plant. Knowledge of the location of diseased and at-risk animals helps preserve animal health; enables a rapid response in case of an animal disease event; reduces animal illnesses and deaths during outbreaks; and decreases the cost to producers, consumers, and the government. This system also assures our trading partners that States and USDA can rapidly contain an animal disease event. Each year, APHIS provides cooperative agreement funds to States, tribes, and territories to

help them establish and maintain support for ADT activities. Currently all cooperators receiving program funds have approved ADT strategic plans in place with APHIS.

The ADT program continues to maintain effectiveness and increase the timeliness of retrieving traceability data. APHIS measures the success of the ADT program by conducting trace exercises that assess a cooperator's ability to properly record and retrieve documents pertaining to official livestock identification and interstate movement. In 2023, APHIS continued to conduct national priority trace exercises where cooperators prioritize the traces as national emergencies. Cooperators completed 367 national priority trace exercises and demonstrated improvement in the national median and average elapsed times. Most cooperators were able to complete each trace exercise in less than or equal to one hour. Participants in these exercises cite the increased use of electronic record keeping processes, electronic identification tags, and electronic Interstate Certificates of Veterinary Inspection applications as some of the main reasons for the reduction in time to complete the exercise. The ADT program will continue to conduct national priority trace exercises in 2024, as part of its performance-based program to evaluate cooperators' abilities to successfully complete trace investigations.

One of the most significant opportunities to strengthen the ADT system is to improve the accessibility for electronic identification tags in adult beef and all dairy cattle, as well as in bison. The electronic tags use radio frequency identification (RFID), which speeds information capture and sharing. In 2023, APHIS distributed 6.6 million official RFID tags to States as an optional alternative to metal ear tags. The tags were provided at no cost, and each State veterinarian distributes the tags in a way that best serves their industry. The tags are available as orange RFID official vaccination tags for use in heifers vaccinated for brucellosis, or white RFID tags for non-vaccinated heifers. As of October 1st, 2023, approximately 22.5 million RFID tags have been provided as an alternative to visual metal ID since distribution began in 2020.

Information Management

Many of the APHIS information management systems are available to States and Tribal Nations to support their traceability plans and other animal health activities. APHIS conducts evaluations of existing data systems and applications to determine if they should be modified and enhanced or if a new system or should be developed. In 2023, APHIS continued modernization efforts for the Animal Disease Traceability Information System (ADTIS). The ADTIS is an information management system that APHIS utilizes to maintain records of official identification devices and other information associated with official identification numbers of animals. The system contains several modules or components that maintain information to support APHIS' ability to respond to animal health events. One component pertains to the location where livestock are raised or maintained, referred to as premises. The modernization effort combined three separate premises registration applications into a comprehensive premises management system and was released in 2022. In 2023, APHIS followed up the ADTIS modernization effort with an additional contract that identified system bug fixes and provided additional enhancements. APHIS continued modernization of the Animal Identification Management System (AIMS) in 2023. AIMS is used to administer official animal identification numbers and devices and other events associated with an official identification number. This modernization effort includes an enhanced user interface, recording of animal characteristics (age, sex, breed, etc.) and the ability to associate more than one identification device per animal, and will be completed in 2024.

APHIS delivered an electronic reporting tool for highly pathogenic avian influenza (HPAI) test results to streamline data collection and reporting activities for HPAI response efforts in 2023. Additionally, in response to the recent African Swine Fever (ASF) outbreak in the Dominican Republic and Haiti, APHIS developed a pipeline to integrate ASF surveillance data from the Agency's Emergency Management Response System for Puerto Rico and the U.S. Virgin Islands with the national surveillance program data into APHIS' Data Integration System. This integrated surveillance data enhanced the ASF operational dashboards as well as the public facing dashboard to provide a comprehensive picture of ASF response efforts in the Caribbean.

National Veterinary Accreditation Program

More than 71,000 highly trained accredited veterinarians voluntarily participate in NVAP. Accreditation by USDA allows private practice, academic, industry, military, and other veterinarians to serve as the first line of defense for reportable domestic and foreign animal diseases. Once symptoms of a suspected foreign animal disease are reported, further diagnostics can be conducted or facilitated by Federal veterinarians and State animal health officials to provide rapid diagnosis, quarantine, and other control measures to safeguard animal and human health. Accredited

veterinarians also provide official animal, flock, and herd health certifications, disease testing, and traceability measures which are needed for the intrastate, interstate, and international movement of animals each year. Mandatory training for participants and renewal of accreditation every three years provides current information of animal disease surveillance, prevention, zoonoses, judicious use of antimicrobials, animal welfare, and disaster preparedness. APHIS currently hosts 37 web-based supplemental training modules for accredited veterinarians and veterinary students. Since 2011, accredited veterinarians have completed nearly 1 million hours of online training modules, and more than 40,000 modules completed at veterinary conferences nationwide.

2. Aquatic Animal Health

The Aquatic Animal Health program protects the health and value of U.S. farm-raised aquatic animals and natural resources. The program supports commercial producers in domestic and international trade markets, valued at \$1.5 billion in 2018 (National Agricultural Statistics Service, 2018 Census of Aquaculture). The National Aquaculture Health Plan and Standards (NAHP&S), which includes a more comprehensive approach to aquatic livestock health management, monitoring, and certification, and provides a framework for Federal policies and programs to address aquatic animal diseases for the benefit of aquaculture and aquatic animal resources. The NAHP&S affirms USDA as the lead Federal authority for U.S. aquaculture health, which is consistent with other livestock health programs. APHIS is working towards the codification of uniform aquaculture health standards, entitled the Commercial Aquaculture Health Program Standards (CAHPS). This voluntary, non-regulatory certification program establishes a national, uniform approach for site-specific biosecurity, surveillance, and response plans. These plans are designed to prevent and control the dissemination of aquatic animal pathogens through animal movement and trade, especially those pathogens that are reportable to the World Organisation for Animal Health. Well-managed surveillance planning is the foundation for animal health activities that include disease control and eradication programs, support of emergency preparedness and response, and international trade.

APHIS received additional funding in the 2023 appropriation to support the implementation of NAHP&S and further develop CAHPS. In 2022 and the first half of 2023, APHIS used the CAHPS framework, and the data collected to support and recognize six commercial shrimp companies as being free from specific pathogens resulting in disease freedom status for international trade purposes. The additional funds in 2023 enabled APHIS to host a meeting with State, industry, and aquatic laboratory officials to discuss and begin revising the 2024-2026 NAHP&S, which is set for publication in 2024. The Agency has developed an approach where aquaculture producers address biosecurity surveillance and other management practices that support aquatic health and allow these producers to compete in interstate and international trade. APHIS also used these funds to support an aquatic health and education campaign, as well as a cooperative agreement with Texas A&M AgriLife to develop an online aquatic health training program for producers, veterinarians, and the public.

APHIS initiated the rulemaking process to establish CAHPS as an official USDA aquatic animal health voluntary certification program that supports health and protects/expands domestic and international markets. The Agency supported the development of a field data collection application for CAHPS for inspections and training and funded several projects through cooperative agreements for aquatic health outreach and education to clarify aquatic disease statuses, surveillance, and biosecurity practices, and/or sector practices of the U.S. Aquaculture industry. This program also completed the development of foundational documents for the CAHPS, including program standards and education materials.

In addition, the Agency provides a framework for Federal policies and programs to support aquatic livestock imports and exports through the Aquaculture Business Plan and the NAHP&S.

3. Avian Health

The Avian Health program protects the U.S. poultry industry, while facilitating agricultural trade in poultry and poultry products. The production value of the U.S. poultry industry in 2022 was \$77 billion (USDA, National Agricultural Statistics Service). APHIS' Avian Health program consists of the surveillance, prevention, and control of avian diseases; disease threat planning and response; and international avian health activities.

APHIS works to quickly detect and address endemic, emerging, and foreign disease threats to ensure that the U.S. poultry industry maintains worldwide competitiveness. To detect these threats, the Agency conducts surveillance in domestic poultry, wild birds, and the live bird marketing system (LBMS). As of September 30, 2023, 25 States had live bird market components that participated in APHIS' H5/H7 Avian Influenza (AI) prevention and control

program. State cooperators help conduct surveillance and diagnostic activities for the LBMS. When testing yields presumptive positive results, the Agency confirms the presence and strain of AI. LBMS testing prevents and controls AI in markets and among producers and distributors that supply those markets. In 2023, there were 34 detections of highly pathogenic avian influenza (HPAI) and one H7N3 detection of Low Pathogenicity Avian Influenza (LPAI) in the LBMS. The program conducted 81,036 AI surveillance tests in the LBMS in 2022, and approximately 25,683 tests in the first two quarters of 2023. Complete 2023 data will be available after the agreements with States conclude on March 31, 2024.

APHIS initiated a plan in 2020 to eliminate the H2N2 AI virus from the LBMS in Connecticut, New Jersey, New York, and Pennsylvania. The virus had been circulating in these areas since 2014. The first year, 2022, was when all four of these States instituted a control program. As a result, LBM H2N2 detections decreased by 68 percent (from 272 in 2021 to 86 in 2022). This virus has not been detected since September 2022, but a new, unrelated H2N2 virus was detected sporadically in May 2023, and has not been detected again since that time. The H2 and N2 specific assays were rapidly updated to ensure detection of the new virus and shared with the National Animal Health Laboratory Network labs in Spring 2023.

The National Poultry Improvement Plan (NPIP) is a cooperative Federal-State-industry program administered by APHIS that helps participants guard against disease incursion and enhance the marketability of poultry and poultry products. NPIP has a scientific, thorough, and democratic process for vetting proposed modifications and updating the NPIP. Proposed updates are reviewed and brought to a vote by a congress of US poultry and egg industry stakeholders at the NPIP Biennial Conference. This conference is attended by Official State Agencies, dealers, authorized laboratories, and owners of hatcheries and independent flocks. In June 2023, four proposed changes were passed for interim approval at NPIP's General Conference Committee meeting. These changes subsequently took effect, becoming active in the NPIP provisions, until the August 2024 Biennial Conference, when they will be considered for full approval. Two of these changes increase flexibility for the importation of products from nonparticipating flocks outside the United States by clarifying equivalent status. The other two changes increase flexibility for the use of virtual technology for Official State Agents during inspections and supervision of NPIP flocks. APHIS expects the final rule from the provisions and program standards that were voted on at the June 2022 Biennial Conference to be published before the August 2024 Conference.

APHIS conducts AI surveillance in commercial poultry under the NPIP H5/H7 LPAI AI Prevention and Control program. Most of the testing is performed locally, but the Agency's National Veterinary Services Laboratories provides reagents for testing and performs confirmation and identification testing of presumptive positive specimens. In 2022, APHIS performed approximately 1.9 million AI surveillance tests through NPIP AI cooperative agreements and more than 1.4 million tests through the third quarter of 2023. Complete 2023 data will be available after the agreements with States conclude on March 31, 2024. Based on tests results available as of September 30, 2023, there was no detection of H5/H7 LPAI virus in the U.S. commercial poultry flocks in 2023.

AI circulates in waterfowl, shorebirds, and other species, which allows the viruses to move efficiently along migratory flyways in these birds. During 2022 and 2023, thousands of migratory birds died from HPAI infections, often in large congregations, in numerous states. These viruses can infect domestic land-based poultry such as chickens and turkeys. When poultry are infected with H5 or H7 strains of AI virus, the virus can evolve into the more serious disease-causing form, HPAI. HPAI usually causes significant disease and mortality in domestic poultry and sometimes in wild birds. APHIS conducts wild bird surveillance to gain insight into AI viruses in wild populations, and to provide that data to poultry producers and others so they can make informed biosecurity and management decisions. In 2023, the Agency coordinated the collection and laboratory analysis of more than 31,000 wild bird samples from wild waterfowl in priority watersheds in all 4 flyways. In the 2022-2023 outbreak, HPAI has been detected in more than 150 wild bird species and 16 different mammal species. The first HPAI detection in the United States was from a wild bird sampled as part of this surveillance effort and served as an early warning system.

Internationally, APHIS facilitates agricultural trade, works with agricultural officials, monitors agricultural health, and supports efforts in sanitary and phytosanitary standard-setting. In 2023, the Agency partnered with the University of Delaware to deliver symposiums on Emergency Poultry Disease and Regionalization (EPDRR) and the Veterinary Diagnostic Laboratory Quality Assurance (VDLQA). The EPDRR symposium was attended by 19 participants from 19 countries. It provided training on World Organisation for Animal Health's (WOAH) reportable poultry diseases and covered surveillance, biosecurity, outbreak response and control, incident command structures, depopulation, disposal, composting, and decontamination. The VDLQA symposium was attended by 22 participants

from 20 countries. It trained participants on the competency of ISO 17025 (for testing and calibration laboratories), focusing on compliance with international laboratory standards and accurate testing.

4. Cattle Health

The Cattle Health Program protects and improves the quality, productivity, and economic viability of the U.S. cattle industry, whose production was valued at approximately \$94 billion (National Agricultural Statistics Service, 2021). The Cattle Health Program works to rapidly detect and respond to diseases that could significantly affect the U.S. cattle and bison population.

APHIS activities in the Cattle Health Program include surveillance, disease prevention, disease investigation, and outbreak response actions. In addition, APHIS maintains regulations, national program standards, and guidelines that direct activities at the Federal, State, Tribal, and local levels. Establishing and maintaining these standards is critical to supporting interstate and international commerce by providing assurances about the health of cattle or bison being moved or traded.

In 2023, APHIS continued to conduct surveillance for foreign, emerging, and endemic diseases, including bovine tuberculosis (TB), brucellosis, and bovine spongiform encephalopathy (BSE) as well as disease vectors, such as the cattle fever tick (CFT), and new world screwworm (NWS). The Agency conducts surveillance through cattle testing on-farm as well as at slaughter facilities, livestock markets, shows, sales, buying stations (first point testing), and rendering facilities (operations that collect dead, dying, disabled, and diseased animals). APHIS also continued working with Canada and Mexico to prevent the introduction of foot-and-mouth disease, NWS, and other cattle diseases. The following are examples of the Agency's efforts to protect cattle health during 2023.

Bovine tuberculosis

Bovine TB primarily affects cattle but has the potential to affect other animal species and humans. APHIS' surveillance for bovine TB includes testing live cattle and slaughter surveillance conducted by the USDA's Food Safety and Inspection Service. The bovine TB program, initiated in 1917, has significantly decreased the prevalence of the disease in U.S. livestock. Today the prevalence rate in cattle herds is less than 0.001 percent.

The Cattle Health Program has five State bovine TB classifications. A higher disease prevalence results in classifications that have more restrictive movement requirements. The classifications are, in order of least restrictive to most restrictive: accredited free, modified accredited advanced, modified accredited, accreditation preparatory, and non-accredited. Michigan is currently composed of two classification zones: accredited free and modified accredited status. At the end of 2023, 49 States, 2 Territories (Puerto Rico and the U.S. Virgin Islands), and 1 classification zone in Michigan were TB accredited free.

In 2023, approximately 121 Federally inspected slaughter establishments submitted 5,601 samples for TB testing. Through these slaughter surveillance efforts, the program detected TB in four cattle in 2023. Two of the animals traced back to Michigan, one to South Dakota, and one to Nebraska which was traced back to a TB-affected herd in Canada. Only in the Canada case was TB confirmed in the originating herd. During 2023, APHIS in cooperation with State animal health agencies continued to manage six TB-positive herds under test-and-remove protocols. APHIS used Commodity Credit Corporation funds (CCC) funds to conduct test-and-remove protocols and depopulation activities in accordance with each herd's management plan.

Bovine brucellosis

Bovine brucellosis is an infectious disease that can cause decreased milk production, weight loss, abortions, infertility, and lameness. These effects can negatively impact the livelihood of cattle producers and the supply of meat and dairy products. Federal and State brucellosis eradication efforts have resulted in all 50 States, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands being Class-Free since July 2009. The brucellosis Class-Free classification is based on no detections of brucellosis in the cattle herd for 12 months. Class-Free States with brucellosis in wildlife work with APHIS to implement a state brucellosis management plan (BMP). Each BMP defines the basis for the area identified; describes the epidemiologic assessment and surveillance activities to determine if wildlife populations are affected; and describes surveillance and mitigation activities for cattle, bison, and wildlife. Although the United States is considered Class-Free of brucellosis, there continues to be a presence of

brucellosis in free-ranging bison and wild elk in the Designated Surveillance Area (DSA), which includes parts of Idaho, Montana, and Wyoming and is commonly referred to as the Greater Yellowstone Area.

APHIS provides expertise to land and wildlife management agencies to manage brucellosis in the DSA. In 2023, APHIS conducted a brucellosis program review for Wyoming to ensure the State is properly administering the brucellosis program standards to control their DSA and prevent infection from escaping the endemic zone. In 2023, APHIS detected brucellosis in three herds within the DSA of Idaho, Montana, and Wyoming as well as a fourth detection within a herd outside of the DSA in Wyoming. The detections within the DSA were a result of testing at livestock markets and DSA surveillance testing. The detection outside of the DSA was made through slaughter surveillance testing. APHIS placed all four herds under a test-and-remove herd management plan. As part of the Bison Conservation Transfer Program, APHIS uses an Approved Bison Quarantine Facility located in Montana to quarantine and test bison from Yellowstone National Park, determine their brucellosis disease status, and release them, disease-free, outside the DSA. In 2023, APHIS enrolled 282 into the Bison Conservation Transfer Program, and placed them under quarantine. APHIS also transferred 116 bison that were previously under quarantine to the Fort Peck Bison Testing facility an Approved Assurance Testing Facility outside of the DSA that APHIS has partnered with to increase capacity for bison release.

In 2023, APHIS tested approximately 520,544 head of cattle under the market cattle identification national slaughter surveillance program, exceeding the annual target goal of 350,000. The Agency, in conjunction with States, tests cattle and domestic bison on farms and ranches prior to movement, private sale, and herd certification issuance for show and exhibition purposes. In 2023, the program tested approximately 231,000 cattle and vaccinated over 1.1 million calves and 2,900 adult cattle for brucellosis. The number of certified-free herds is steadily declining since all States are considered Class-Free of brucellosis. Agency-accredited veterinarians perform most of the vaccinations and sample collection, and State laboratories test the samples. As of September 30, 2023, the program is still collecting and validating fourth quarter testing and sampling data.

Bovine spongiform encephalopathy

BSE, widely referred to as “mad cow disease,” is a progressive and fatal neurologic disease of cattle. The disease is caused by a transmissible abnormal prion protein. BSE is not a contagious disease and therefore is not spread through casual contact between cattle or with other species. BSE detections are separated into 2 distinct categories, classical and atypical. Classical BSE occurs through the consumption of contaminated feed. While classical BSE was identified as a significant threat in the 1990s, most years there are no detections made worldwide. This is a result of the successful implementation of effective control measures on an international scale. Atypical BSE refers to naturally and sporadically occurring forms, which are believed to occur in all bovine populations at a very low rate, and which have only been identified in older bovines when conducting surveillance. APHIS works with the USDA Food Safety and Inspection Service and the Food and Drug Administration to conduct ongoing BSE surveillance, allowing the United States to maintain BSE Negligible Risk status per the World Organisation for Animal Health’s (WOAH) standards to facilitate trade.

The WOAH evaluates countries that submit a request for disease freedom and assigns a points-based risk status for BSE. The BSE surveillance program uses WOAH's weighted surveillance points system, which reflects that the best BSE surveillance programs focus on obtaining quality samples from targeted populations rather than looking at the entire adult cattle population. The WOAH’s surveillance points system also incorporates a country’s history with the disease, the implementation and enforcement of cattle feed regulations, and their overall BSE surveillance. In 2023, the Agency tested for BSE in 22,835 cattle, resulting in 239,648 points, exceeding the WOAH’s international surveillance standards (21,429 points per year) by 11 times. No cases of classical BSE were detected in 2023; however, an atypical BSE case was detected at slaughter as part of the BSE surveillance program. An epidemiologic investigation was conducted in accordance with the BSE Response Plan.

Cattle fever tick

The Federal-State Cattle Fever Tick Eradication Program is a partnership between APHIS and the Texas Animal Health Commission. The cattle fever tick (*Boophilus annulatus*) and the southern cattle tick (*B. microplus*) are vectors for spreading babesiosis, also known as cattle fever. Even when not transmitting this disease, CFT can cause blood loss, damage to hides, and an overall decrease in the condition of livestock. Mortality in cattle without prior exposure to the disease ranges from 70 to 90 percent. The Agency focuses on controlling the spread of tick species

that transmit the infectious agent through the inspection of livestock before they leave quarantined areas, surveillance at local markets, inspection of hunter-killed white-tailed deer and other exotic ungulates that can harbor the tick, and horseback river trail patrols to capture stray and smuggled Mexican livestock that may carry ticks into the United States.

The United States remains free of cattle fever. There is a permanent quarantine buffer zone established between Texas and Mexico. Mexican states bordering the United States can introduce tick-infested wildlife or livestock potentially bringing ticks into the United States. Tick eradication activities consist of identifying and quarantining infested premises and treating livestock and wildlife. Approved treatment methods for ticks include dipping or spraying cattle with coumaphos, feeding ivermectin-treated corn to wild deer, and injecting cattle with Doramectin. 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. In 2023, 749 infested quarantine premises were released, compared to 573 in 2022. In 2023, APHIS conducted 76,522 individual livestock inspections and treatments throughout South Texas. Additionally, in 2023, the permanent quarantine zone and the free area of Texas contained 61 newly infested quarantined premises, compared to 63 in 2022.

Carrizo cane is an invasive species and perennial bamboo-like grass that occupies the banks and floodplains of the Rio Grande River in Texas. The cane makes for a particularly favorable habitat for CFT which reside in the vegetation waiting for animals to brush by so they can attach. The standard approach for keeping Carrizo cane under control is to cut it down to three feet twice a year using a mechanical cutter bar mounted on a tractor, a process referred to as “topping”. In 2023, APHIS worked with contractors to aid in the eradication of the invasive cane and increase river visibility by successfully topping approximately 140 miles of land area, primarily alongside river trails used by CFT inspectors.

Screwworm

APHIS and its cooperators eradicated new world screwworm (*Cochliomyia hominivorax* - NWS) from the United States, Mexico, portions of the Caribbean, and through Central America to southern Panama. APHIS collaborates with Panama to prevent the reestablishment of NWS in free areas by maintaining a biological barrier zone along the Panama-Colombia border. APHIS, through its cooperator, Commission for the Eradication and Prevention of Screwworm (COPEG), produces and releases sterile NWS to maintain the barrier, preventing the northward movement of NWS from South America, where it is endemic, to NWS free areas in Central and North America. APHIS’s work saves an estimated \$2.3 billion dollars annually (APHIS internal analysis) for the cattle industries of the United States and contributes to animal health and welfare and food security in the region.

In 2023, the program faced an unprecedented NWS outbreak in Panama that spread into Costa Rica. The program also detected a decline in field performance of the sterile NWS production strain and replaced it with cryogenically preserved biological material to improve sterile fly fitness. The program increased production and dispersal from 20 million to 65 million sterile NWS per week to address the high pest load in the field. Panama and Costa Rica’s Ministries of Agriculture declared emergency outbreaks respectively and implemented quarantine measures and, with support from COPEG, enhanced epidemiological surveillance and outreach and education to producers in affected areas.

APHIS anticipates it will take several years to eradicate the outbreak and reestablish the barrier zone. This work is critical to preventing NWS from spreading further into Central America and the United States.

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, surveillance, investigation, response, and disease prevention and preparedness to address animal health issues. The Agency’s monitoring and surveillance activities detect foreign, emerging, zoonotic, and domestic diseases that could substantially impact the economy. APHIS also works with international and domestic trading partners to facilitate safe trade in equine, cervids, and small ruminants and their products and ensure disease incidents of trade concern are reported to the World Organisation for Animal Health (WOAH). In 2023, the ECSRH Program conducted disease surveillance and/or monitoring for the following diseases: scrapie, bovine tuberculosis (TB), chronic wasting disease (CWD), vesicular stomatitis virus (VSV), contagious equine metritis (CEM), equine piroplasmiasis (EP), Eastern equine encephalitis, West Nile virus, and equine infectious anemia (EIA).

Sheep and Goat

Scrapie is a fatal, degenerative disease affecting the central nervous system of sheep and goats. Infected flocks can experience significant production losses. The National Scrapie Eradication Program (NSEP) focuses on improving the health of domestic sheep and goats, reducing scrapie-associated economic losses, and increasing international marketing opportunities. APHIS and State animal health personnel implement NSEP standards to prevent, monitor, and eradicate classical scrapie throughout the United States. All 50 States maintain a Consistent State status under NSEP, where States must conduct an active scrapie control program which is verified through Consistent State reviews. In 2023, APHIS conducted Consistent State reviews in Iowa, Louisiana, Mississippi, Montana, New York, and South Dakota.

Regulatory scrapie slaughter surveillance efforts began in 2003 and were designed to identify scrapie infected flocks and herds by sampling animals at slaughter. Since the surveillance program began in 2003, the program has collected samples from approximately 745,000 animals at slaughter, and only 471 sheep have tested positive for classical scrapie. There hasn't been a classical scrapie detection since 2021. In 2023, APHIS collected samples from more than 26,000 sheep and goats for scrapie testing. Out of the total number of animals tested in 2023, no animals tested positive for classical scrapie and one sheep tested positive for non-classical scrapie (Nor98-like). Unlike classical scrapie, non-classical scrapie is either not laterally transmissible or is transmissible at a very low rate. The WOA and APHIS determined that it is not a disease of trade concern.

NSEP has a voluntary flock certification component, the Scrapie Free Flock Certification Program (SFCP). Participation in SFCP enables producers to enhance the marketability of their animals by monitoring them for scrapie and reducing the risk of introducing scrapie which provides participants an avenue to export sheep and goats. In 2023, 179 flocks were enrolled in SFCP. Of these, 37 were export certified (scrapie-free), 28 were export monitored (working towards documenting scrapie freedom), and 114 were select monitored (reduced scrapie risk).

Cervids

APHIS works with State agencies to encourage cervid owners to certify their herds by meeting the requirements in the CWD Herd Certification Program (HCP) Standards. APHIS' voluntary national CWD HCP helps States, Tribes, and the cervid industry control CWD in farmed cervids by allowing the interstate movement only from certified herds. Currently, 28 States participate in the national CWD HCP. In 2023, eight percent of the farmed cervids in the HCP were tested for CWD at APHIS and State laboratories. Of the 303,242 farmed cervids tested in 2023, APHIS confirmed 22 new CWD positive farmed cervid herds. APHIS provided Federal indemnity to depopulate one of the newly identified positive herds and approved an indemnity payment for a second positive herd which will be provided in 2024 once depopulation occurs. The remaining infected herds are under State quarantines. APHIS determines the use of Federal indemnity payments within the CWD program on a case-by-case basis.

In 2023, APHIS made approximately \$12.3 million available for cooperative agreements with States and Tribal governments to further develop and implement CWD surveillance, testing, management, and response activities. This includes the further development and evaluation of techniques and strategies to prevent or control CWD in farmed and wild cervid populations. APHIS funded cooperative agreement with 22 States, 15 universities, and 11 Tribes and Tribal Organizations for CWD projects.

APHIS also coordinates a voluntary cervid TB herd accreditation program. Herds that participate in the cervid TB herd accreditation program must test all cervids in the herd over 12 months of age. They must also have negative TB results from two rounds of testing 9 to 15 months apart using either the Dual Path Platform (DPP) test or the Single Cervical Test (SCT) for their herd to be classified as accredited free. Herds must retest every three years thereafter to remain accredited. In 2023, 11,435 animals were tested for TB using the DPP test and 1,030 using the SCT. Of the cervids tested using DPP, 83 were identified as suspects on the first round of testing, and 8 were classified as reactors based on the second round of testing. Upon further testing, APHIS determined that all eight DPP reactors were negative for TB. Of the cervids tested using SCT, four suspects were identified on the first round of testing and tested negative on the follow up test.

In 2023, APHIS continued a project to evaluate the DPP test (approved in 2012 as a primary TB test for elk, red deer, white-tailed deer, reindeer, and fallow deer) for use as a primary and secondary TB test in mule and sika deer. In 2023, APHIS added axis deer to the project. The DPP test is a serologic test that performs comparable to skin

tests with the added advantage of reducing animal handling and associated morbidity and mortality; its use is expected to enhance TB surveillance in these three species. The project uses samples that accredited veterinarians submit for TB herd certification purposes. As of the end of 2023, 366 mule deer, 148 sika deer, and 137 axis deer were tested as part of the project. All animals tested negative.

Equines

APHIS collaborates with Federal, State, and industry partners to protect the equine industry from disease, improve the health of our domestic herd, and protect human health. These activities improve trade and facilitate equine movement, which are vital to maintaining the industry's economic value. APHIS provides veterinary support and consultation to the U.S. Department of the Interior's Bureau of Land Management Wild Horse and Burro Program through an interagency cooperative agreement.

APHIS provides expertise and helps develop the industry's National Equine Health Plan. The plan functions as a roadmap for owners, veterinarians, and industry organizations to coordinate with State and Federal animal health officials to recognize, prevent, control, and respond to equine diseases. APHIS integrates the roles of the State and Federal health officials with industry stakeholders to improve both equine health and the industry by decreasing the impact of infectious disease on the horse economy.

In 2023, APHIS provided oversight and epidemiological support in response to 9 cases of equine piroplasmiasis in 5 States, 46 cases of equine infectious anemia in 13 States, 158 cases of West Nile virus in 24 States, and 35 cases of Eastern equine encephalitis in 12 States. In 2023, an outbreak of vesicular stomatitis virus occurred across 3 States (California, Nevada, and Texas). APHIS provided oversight and epidemiological support to 203 VSV-affected premises. Additionally, in 2023, APHIS maintained certification and annual proficiency testing for 20 equine viral arteritis laboratories, 12 EP laboratories, and 13 CEM laboratories, and additionally certified and conducted annual proficiency testing for 385 EIA laboratories. APHIS also participated in the Agricultural Research Services' VSV Grand Challenge project which produces scientific publications annually. Based on the findings of this project, APHIS implemented vector mitigation strategies at key outbreak locations in response to the 2023 VSV outbreak.

6. National Veterinary Stockpile

The National Veterinary Stockpile (NVS), overseen by APHIS' Field Operations Logistics Center, serves as the primary source of materials, supplies, and equipment for the response to, control of, and containment of significant animal disease outbreaks. The NVS has two primary objectives. The first is to deploy countermeasures, within 24 hours of approval, against the most damaging animal diseases including highly pathogenic avian influenza (HPAI), foot-and-mouth disease (FMD), virulent Newcastle disease (vND), classical swine fever (CSF), and African swine fever (ASF). The second objective is to assist States, Tribes, and Territories with planning, training, and exercises for the rapid request, receipt, processing, and distribution of NVS countermeasures during an event. The NVS works with States, tribes, and territories to develop their logistics plans, conduct logistics training, and organize full-scale logistics exercises.

The NVS continuously evaluates its inventory of supplies and replaces expired inventory. The NVS deployed supplies, equipment and contractor support to States responding to HPAI outbreaks across the United States. The NVS coordinated the purchase of additional supplies to support response efforts to the outbreak of ASF in the Dominican Republic and Haiti. In 2023, the NVS shipped animal handling equipment, depopulation equipment, and personal protective equipment to the Dominican Republic and provided supplies to Puerto Rico in support of ASF enhanced surveillance activities. In 2023, the NVS also acquired equipment to bolster domestic preparedness and response efforts, as well as purchased incinerations and repaired existing swine depopulation systems.

The NVS coordinates and supports activities with States, Tribes, and territories to improve logistical readiness in the event of an animal disease outbreak. In 2023, the NVS returned to conducting these training exercises in-person. In 2023, the NVS conducted a logistics-based full-scale exercise with the West Virginia Department of Agriculture and the Utah Department of Agriculture and Food to review their State NVS Logistics Plans and validated the State's ability to respond logistically to a foreign animal disease outbreak. The exercise in 2023, was based on an HPAI outbreak response. In addition, tabletop exercises were conducted with cooperators in France to evaluate their ability to provide CSF vaccines to the United States during an outbreak. The NVS also delivered several virtual veterinary stockpile presentations to States preparing for a HPAI response which included representatives from Delaware,

Maryland, Virginia, West Virginia, the Northwest Indian Fish Commission, Oklahoma Tribal Conservation Advisory Council, and the Chickasaw Nation. These activities supported APHIS and participating stakeholders and partners in refining their preparedness procedures. The NVS continues to conduct exercises and trainings in resource deployment and response preparedness to animal health events in 2024.

APHIS continued to maintain the North American Foot and Mouth Disease Vaccine Bank (NAFMDVB) as part of the Agency's animal health readiness initiative in 2023. The NAFMDVB is a vaccine stockpile that the United States and Canada cooperatively support. Each country has contributed funding to acquire and maintain a stockpile of vaccine concentrate, from which FMD vaccine is derived. Canada and the United States continue to ensure that the Bank maintains stocks of vaccine concentrate and conducts necessary quality assurance testing. A portion of NVS funding was used to acquire new antigen for FMD preparedness.

7. Swine Health

APHIS' Swine Health Program protects the health and improves the quality, productivity, and economic viability of the swine industry. The 2022 production value of the swine industry was approximately \$30 billion (USDA, National Agricultural Statistics Service). In addition, the program facilitates trade in swine and pork products, and addresses swine health issues at the human-swine interface and between wildlife and domestic swine. APHIS activities include comprehensive and integrated swine surveillance, emergency preparedness and response planning, disease investigation and control activities, zoonotic disease prevention and response, swine health studies and special projects, collaborations on emerging issues, 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 support interstate and international commerce by ensuring the health of animals and products being moved or traded.

In 2023, APHIS continued funding a pilot project with Iowa State University to develop and demonstrate the U.S. Swine Health Improvement Plan (SHIP). This pilot provides a framework to further safeguard the swine industry by ensuring active and effective nationwide surveillance and the ability to quickly regionalize and quarantine infected areas. This framework enables the Agency to assure trading partners about the status of these diseases and the health of unaffected areas. U.S. pork producers and packing facilities in participating States that meet specified requirements can voluntarily enroll in the program. APHIS plans to expand the pilot to a permanent, sustainable program. In 2023, APHIS oversaw the expanded implementation of the project which included: standing up additional Official State Agencies and further increasing the enrollment of swine premises; continuing to draft pilot program standards and resolutions in areas such as sampling and diagnostics, traceability, and biosecurity; and hosting the third annual House of Delegates (a forum of industry stakeholders) meeting in September 2023, and increasing membership to the forum. Also in 2023, APHIS managed cooperator oversight of US SHIP activities and drafted regulatory language to potentially publish a proposed rule in early 2024 to update program standards pertaining to requirements that will be placed on producers and slaughter facilities to be certified in SHIP. When fully established, the SHIP will be a collaborative effort involving State, industry, and Federal partners and provide standards for certifying the health status of swine across participating farm sites, supply chains, States, and regions. It will be a key part of APHIS' national plan to safeguard U.S. pork production from African swine fever (ASF) and other diseases, and it will support industry leadership on sustainable solutions to ASF preparedness and prevention. Producer participation will enhance biosecurity and traceability practices that will bolster APHIS' ability to control disease and return to productivity and marketability in the event of an ASF incursion in its swine sector. The program will eventually have the potential to reduce trade impacting disease-related market risks; establish an officially recognized program for monitoring for foreign diseases that can support and sustain interstate and export commerce in an outbreak; facilitate larger efforts to mitigate the impact of recurring endemic diseases of high consequence; and garner feedback in an officially recognized forum to inform Federal and State programs, planning, and activities. As of September 30, 2023, 60 percent of the U.S. Swine Inventory was enrolled in the pilot. APHIS expects to increase this percentage to 65 in 2024 and 70 in 2025.

For several years, the Agency has been pooling swine tissue samples. Sample pooling involves mixing a pre-selected number of samples in a batch for testing. By combining up to 5 samples from the same barn, the program can improve the efficiency of sample testing, increasing the number of swine that can be tested using the same resources. In 2023, APHIS expanded sample pooling to include whole blood to enhance ASF diagnosis and surveillance. In 2023, the program tested 2,044 pooled samples, representing 5,239 specimens.

In August 2023, APHIS hosted the 2023 North American ASF Forum for national and international government officials, State animal health officials, and swine industry representatives. The forum was the third in a series of meetings among the United States, Canada, and Mexico to focus on trilateral coordination to prevent ASF introduction into North America while planning and preparing for an introduction. Key issues discussed at the Forum included regionalization evaluation, the U.S Protection Zone, depopulation and disposal, surveillance and laboratory capacity, traceability during an outbreak, and feral swine response during an outbreak.

APHIS continued an ASF/CSF surveillance program in 2023, testing 35,539 samples at the NAHLN and Foreign Animal Disease Diagnostic Laboratory (FADDL), and 5,997 CSF-only serum samples at FADDL. Of the CSF-only serum sampling program, 93 percent of those samples originated from feral swine and 7 from high-risk domestic swine. In 2023, APHIS shifted to sampling *all* higher-risk swine and a subset of feral swine from high-risk counties in Florida, Georgia, Louisiana, and Texas for both ASF and CSF, and high-risk counties in Alabama, California, Mississippi, South Carolina, and Tennessee in May of 2023. The Agency tested 5,582 samples. CSF remains eradicated from the United States. In 2023, APHIS completed an evaluation of the *Swine Hemorrhagic Fevers: African and Classical Swine Fevers Integrated Surveillance Plan* and will post the summary report on the Agency website in 2024. APHIS will modify the Plan in 2024 based on the evaluation's findings. In addition, the Agency developed and implemented an ASF/CSF polymerase chain reaction (PCR) test. Because co-infections of these viruses make it difficult to distinguish their symptoms and pathological changes, APHIS wanted to develop a rapid and specific method of distinguishing these pathogens efficiently.

As part of routine active surveillance for pseudorabies virus (PRV) and swine brucellosis (SB), APHIS conducts active surveillance of commercial swine herds and non-commercial high-risk swine herds. In 2023, the Agency tested 84,709 samples from commercial and non-commercial herds for PRV and SB. Although testing results received by September 30, 2023, confirmed that all commercial swine herds continue to be free from PRV and SB, APHIS supported the investigations of more than 50 swine herds from which non-negative results were reported and referred to APHIS' National Veterinary Services Laboratories for confirmatory testing. Of these non-negative investigations, APHIS confirmed SB disease detection and coordinated payments for 4 whole-herd depopulations and facilitated the necropsy of 24 swine from 10 premises to rule out SB infection through culture. Most of these herds were found not to be infected with PRV or SB through further investigation and testing, and the herds that were infected were identified to be non-commercial high-risk herds with known feral swine exposure. When disease is confirmed in a herd, APHIS and States investigate and quarantine infected herds, conduct outbreak testing to determine herd disease levels, and depopulate or remove infected animals through a test-and-removal strategy to eliminate disease risk from these herds. These efforts protect commercial herds that may be exposed to infected backyard herds. Complete 2023 herd data will be available in March 2024, after States complete investigations and data has been verified.

APHIS performed slightly fewer foreign animal disease (FAD) investigations in swine in 2023 compared to 2022. In 2023, APHIS performed 987 FAD investigations in swine, and all were negative. A total of 965 of the investigations were for vesicular diseases, such as foot-and-mouth disease (FMD), and 22 were for hemorrhagic fever.

Swine can harbor several zoonotic disease agents, such as swine influenza (IAV-S) and SB. In such cases, State public health and animal health officials conduct investigations, and request support from APHIS and the Centers for Disease Control and Prevention (CDC) when warranted. Joint animal health and public health investigations support the One-Health concept and strengthen APHIS' ability to respond when both animal and human health might be compromised. In 2023, State public health officials reported five human variant influenza A cases in three States (Michigan, Montana, and New Mexico). Three of the five individuals reported exposure to swine, one did not have exposure to swine, and one did not know if they were exposed to swine. Many States and local public health officials find information derived from whole genome sequencing more helpful in their investigations. APHIS and ARS have established a program to help States and industry identify isolates from the swine associated with these outbreaks. In 2023, more than 854 IAV-S samples were entered into this program. States and industry enter genetic sequences from the samples tested in this program into GenBank, a publicly accessible genomic database that provides the scientific community with comprehensive DNA sequence information to support diagnostic test and vaccine development.

APHIS has the responsibility under the Swine Health Protection Act (SHPA) to license and inspect swine production facilities that feed cooked garbage to swine, and to conduct searches for unlicensed facilities that may illegally feed raw garbage to swine. In addition, the SHPA authorizes States to have primary enforcement

responsibility, which provides authority to regulate the feeding of garbage to swine. If a State fails to meet SHPA enforcement requirements, APHIS may assume the responsibility in the State. Feeding untreated or improperly treated garbage could transmit infectious diseases such as ASF, FMD, or CSF to swine. In 2023, 26 States, Puerto Rico (PR), and the U.S. Virgin Islands (USVI) allowed the feeding of cooked garbage to swine. Six of these States held enforcement responsibility and APHIS held enforcement responsibility for 2 States, PR, and the USVI. The remaining 18 States maintain a cooperative Federal/State enforcement program. In 2023, APHIS supported 2,101 routine inspections of licensed premises and 4,909 searches for non-licensed facilities. Through these searches, the Agency identified 15 non-licensed feeders. APHIS worked with States to either bring unlicensed facilities into compliance or force them to cease their illegal activities.

In August 2023, APHIS published a proposed rule, based on a risk evaluation to recognize the regions of Tuscany and Umbria, Italy, as being free of swine vesicular disease (SVD). SVD is a dangerous and communicable swine disease which is particularly concerning due to its similarity to FMD. The public comment period for this rule closed on October 23, 2023.

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. The CVB develops regulations concerning the production and licensing of veterinary biologics, evaluates pre-licensing dossiers and issuance of licenses and permits, tests products submitted for licensure, inspects facilities and products, approves product certifications, investigates non-compliance, and conducts post-marketing surveillance to ensure that manufacturers comply with all relevant regulations and policies. The Center continued to ensure an effective, efficient, and responsive veterinary biologics program that can provide timely approvals and availability of veterinary vaccines, diagnostics, and other novel biologics to protect animal and public health and enhance export opportunities for U.S. veterinary biologics companies. In 2023, the Agency issued licenses for veterinary biologic products within an average of 470 workdays. This represented a 10 percent decrease from an average of 523 workdays in 2022. A major factor that helped reduce this turnaround time was the program's recent implementation of single-tier labeling, which changes the efficacy descriptions for veterinary biologics to a single, streamlined, and uniform label claim. After April 2022, product manufacturers could no longer use previously approved labels, which were more time-consuming to review. The new, simpler format better communicates product performance, saves time and money for the manufacturer, and aligns U.S. labeling with international markets.

Licensed Products and Inspections

APHIS licenses and inspects facilities to ensure that all veterinary biological products produced and distributed within, imported into, or exported from the United States are of the highest quality, and are not worthless, contaminated, dangerous, or harmful. All countries require import and export certificates to certify that all veterinary biological products are prepared in accordance with the Virus-Serum-Toxin Act. In 2023, APHIS reviewed/processed 3,280 Certificates of Licensing and Inspection and reviewed/processed 1,758 export certificates for veterinary biological products. The Agency processed all export certificates within 4 days (the 2023 average was 1.8 days), and all certificates of licensing and inspection within 28 days (the 2023 average was 19.6 days). Timely processing helps ensure that markets are accessible for manufacturers who export their product. APHIS also helped ensure there were no foreign animal disease events related to the importation of more than 513 million doses of biological products, a 17 percent increase from 2022, in the number of doses imported. Each year, APHIS inspects an average of 50 biologics facilities to assure regulatory compliance. In 2023, APHIS conducted 96 inspections, of which 80 were on-site and 16 were virtual.

In 2023, APHIS received 92 applications for new and renewal licenses/permits and issued 23 licenses/permits for the prevention, diagnosis, management, or cure of existing or new/emerging animal diseases. This data depends on the biologics manufacturers and is outside CVB's control. The Agency licensed 85 manufacturers and permittees for 1,431 active product licenses/permits for the control of 278 animal diseases in 2023. These products are vital for protecting American agriculture, facilitating trade, and enhancing agricultural economic opportunities. CVB also released more than 1.178 billion doses of veterinary vaccines and diagnostic test kits in 2023.

APHIS' National Centers for Animal Health (NCAH) Portal allows real-time communication and data exchange between APHIS and biologics manufacturers, reducing the time and costs for application review. The Agency

continued to enhance the Portal for more comprehensive electronic submissions and two-way data exchange. By the end of 2023, 96 percent of licensed firms and permittees were using the NCAH Portal. This resulted in CVB receiving 99 percent of marketing documents, 91 percent of biographical summaries, 84 percent of licensing correspondence, and 57 percent of inspection and compliance correspondence through the Portal. In 2023, the Portal received 91 percent of export certificates and 98 percent of facility documents. Import permits submitted electronically represented 100 percent of Research and Evaluation Permits, 100 percent of Transit Permits, and 76 percent of Sales and Distribution Permits. Overall, 95 percent of 2023 CVB submissions were received through the Portal. In total, CVB received 57,443 submissions from the Portal in 2023, an increase of nearly 57 percent from 36,631 submissions in 2022.

In February 2023, APHIS finalized and published a memorandum entitled “Guidance for Master Reference Qualification, Requalification, Dating, and Monitoring.” This update incorporated contemporary information regarding dating and reference stability monitoring. The Agency worked with industry groups to update the processes and procedures for animal batch safety testing for target animals and laboratory animals. Target animal safety release testing provides assurance that each serial of product will not have unfavorable results in the target animal. Additionally, safety tests in laboratory animals (mice or guinea pigs) are required for live and inactivated vaccines. The public comment period for this memorandum ended on September 22, 2023, and APHIS is currently adjudicating final comments. In June 2023, APHIS finalized a memorandum entitled “Basic Licensing Requirements and Guidelines for Diagnostic Products.” The Agency continues to update and increase the stringency of sourcing and testing ingredients of animal origin to ensure that increased trade does not lead to the introduction of foreign animal diseases through contaminated veterinary biologics.

APHIS continued to enforce the Virus-Serum-Toxin Act regulation in 2023, requiring all veterinary biologics licensees and permittees to submit reports to the CVB concerning adverse events associated with the use of biological products they produce or distribute domestically and internationally. An adverse event is any illness, reaction, or other undesirable occurrence after the use of an immunobiological product, whether the product caused the event. For diagnostics products, adverse events include anything that hinders the discovery of the correct diagnosis. Adverse event reports are a vital component of CVB’s mission to ensure that veterinary biologics, including those marketed internationally, comply with regulations. In 2023, CVB continued working to improve the quality of data submitted by manufacturers. In response to the mandatory reporting requirement, CVB received 72,966 adverse event reports in 2023. This represented a 7 percent increase from the 68,213 that CVB received in 2022. APHIS also performed 205 regulatory actions, issued 36 violation notices, and conducted 16 investigations of possible violations. More than 99 percent of the unlicensed entities investigated either moved toward product licensure or ceased the objectionable activity.

Collaborative Efforts

APHIS promotes U.S. policy for the oversight of biologics as a regulatory model for both established and developing markets, and it improves the worldwide marketability of USDA-licensed biologics. In 2023, APHIS provided expertise and training at two joint, in-person education programs at the Institute for International Cooperation in Animal Biologics. These programs were made available through in-person sessions to educate domestic and international 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 worldwide marketability of USDA-licensed biologics.

9. Veterinary Diagnostics

Laboratory and diagnostic services are essential components of the U.S. animal health infrastructure. The Veterinary Diagnostics line item supports efforts to stand up the National Bio and Agro-Defense Facility (NBAF) in Manhattan, Kansas which will help protect the nation’s agriculture, farmers, and citizens against the potential threat and effects of serious foreign and zoonotic animal diseases. This line item also supports the National Veterinary Services Laboratories (NVSL), which consists of laboratories in Ames, Iowa and Plum Island, New York, and NVSL’s satellite African swine fever (ASF) testing laboratory in Dorado, Puerto Rico. The Veterinary Diagnostics line item also supports the National Animal Health Laboratory Network (NAHLN), which is an animal disease surveillance and monitoring system that interconnects Federal and State laboratory resources to improve the security of the nation’s livestock by providing disease diagnostics both daily and at increased levels during outbreaks.

National Bio and Agro-Defense Facility

USDA, in collaboration with the Department of Homeland Security (DHS), hosted the NBAF dedication and ribbon cutting ceremony in May of 2023. The following month, the first of five phases of scientific standup officially began. In August 2023, the first scientific activities within NBAF laboratory spaces began with sequencing, histology, and cell culture on very low-risk, non-infectious materials. APHIS and USDA's Agricultural Research Service (ARS) have responsibilities for their own science programs and joint responsibilities over the facility's operations. The mission transfer from Plum Island Animal Disease Center (PIADC) is planned over the next couple of years. USDA will maintain a strategic partnership with DHS to ensure that NBAF and other laboratories protect the nation's food supply, agriculture economy, and public health.

In 2023, APHIS and ARS continued to develop a workforce of subject matter experts in foreign, emerging, and zoonotic diseases to conduct diagnostics in preparation for the NBAF transition. By the end of 2023, the program had accepted 26 fellows from 15 universities nationwide. Thirteen fellows have graduated and joined the Federal workforce at Foreign Animal Disease Diagnostic Laboratory (FADDL). APHIS also supported the NBAF Laboratorian Training Program (NLTP) to train future NBAF laboratory technicians. As of the end of 2023, 69 students had completed the NLTP. In 2023, APHIS established an agreement with Tuskegee University to host an NLTP program. APHIS continues NLTP partnerships with Kansas State University and Texas Tech University. Besides Texas Tech University, students in this program come from a number of Hispanic-Serving Institutions including the Auburn University, Berry College, Midwestern State University, Sam Houston State University, Tarleton State University, and University of Wyoming.

In 2023, APHIS implemented the Global Partnership for Animal and Zoonotic Disease Surveillance (GPAZDS) which links NBAF to nine laboratories in Africa and the Philippines to better understand high consequence diseases endemic in other countries and develop and/or validate diagnostic tests with disease isolates. The Agency continues to identify potential new partner laboratories in other countries. In addition, APHIS continues partnerships with the Alliance for Veterinary Science and Biodefense BSL-3 Network (RAV3N), which is coordinated by Texas A&M University and involves 18 U.S. BSL-3 and BSL-4 laboratories jointly funded with ARS; as well as the BSL4ZNet, an international network of animal and human health laboratories ensuring APHIS has the latest threat and research information on high consequence animal and zoonotic diseases. In 2023, the Agency developed a NAHLN-NBAF Partnership to develop a regional NAHLN laboratory approach to enhance agro-defense capabilities. This partnership launched in early 2024, strategically placing five scientists at five NAHLN laboratories to specialize in evaluating and developing diagnostics for animal and zoonotic diseases.

National Veterinary Services Laboratories

Diagnostic testing and confirmation of surveillance samples improves the security of the nation's livestock. NVSL is often on the forefront of emerging and re-emerging diseases of concern including ASF, virulent Newcastle disease, tilapia lake virus, infectious hypodermal and hematopoietic necrosis virus, Senecavirus A (SVA), bluetongue, vesicular stomatitis virus, and rabbit hemorrhagic disease virus. In 2023, NVSL managed more than 528,614 diagnostic tests and approximately 40,385 accessions (one or more diagnostic samples received from the same submitter on the same day). In 2023, NVSL maintained a web-based portal for entering sample information to minimize the manual re-entry of this information. The laboratories produced and shipped more than 88,000 reagent order items representing approximately 579 product types. Many of these products are only available to stakeholders through APHIS.

In 2023, NVSL developed the core activities of a new Laboratory Information Management System called DARBI (Diagnostic and Research Biomaterial Inventory). These functions include accessioning, subject creation, sample creation, report distribution, the collection of user fees for requested testing, and developing workflows for PCR (polymerase chain reaction) and ELISA (Enzyme-linked immunosorbent assay) tests. A PCR test is used to detect the genetic material of infectious agents, while an ELISA test can be used to detect antibodies and other proteins in the blood. APHIS expects that this new system will improve efficiency by allowing laboratory sections to have paperless workflows and improved search functions.

In 2023, FADDL supported five FAD diagnostician training courses at PIADC involving State and Federal participants, including military veterinarians. In collaboration with the Canadian Food Inspection Agency (CFIA), APHIS worked on a strategy to improve and harmonize available diagnostic methods to enhance North American

ASF preparedness. In 2023, NVSL tested 11,203 samples for 1,664 FAD accessions across 45 States and territories. Since 2014, APHIS has experienced a significant increase in FAD investigations, largely due to the emergence of Senecavirus A, a non-fatal infectious disease of pigs. Because the clinical signs are highly similar to those caused by FMD, APHIS must diagnose each case to exclude FMD. Testing all samples at FADDL for FMD and SVA is time consuming, resource intensive, and decreases FADDL's ability to develop new assays or perform other testing. The NAHLN serves as a resource to enable moving high-volume testing with confidence. In this case, SVA and FMD PCR results (if negative for FMD) from NAHLN laboratories can be considered final and actionable for the field. NAHLN laboratories continue to submit duplicate samples from all cases to FADDL which retested 5 percent for quality assurance. The use of an FMD/SVA multiplex assay in the NAHLN laboratories that facilitates simultaneous testing for both diseases from a single sample has saved time, money, and resources. SVA has been reported across the United States and Canada, as well as in Australia, Brazil, and New Zealand.

The Agency conducts proficiency testing of Federal, State, and university-sponsored laboratories when these laboratories perform authorized diagnostic testing as part of APHIS-approved surveillance and/or response programs. This is done to ensure that they use standardized, rapid diagnostic techniques and to maintain the credibility of U.S. diagnostic test results in the international marketplace. In 2023, APHIS made 34 types of proficiency panels available to international, Federal, State, and private laboratories, both within and outside the NAHLN network. APHIS made the necessary controls and reference strains available for approximately 200 diseases to help other laboratories develop and validate diagnostic tests. User fees cover the cost of some reagents and proficiency panels. In 2023, APHIS finalized the National Poultry Improvement Plan Salmonella Group D proficiency test (PT) and reported results for the PT that was distributed in early 2023. APHIS added this PT to the APHIS portal, harmonizing it with other proficiency tests offered by NVSL. This improved the customer experience, clarified data requirements, reduced testing costs and the person-hours required by the laboratories, and increased the ease of grading in 2022-2023, which is an evaluation required for a laboratory to be an approved NAHLN laboratory. These improvements were based on customer feedback from NAHLN's PT Listening Sessions in 2021.

APHIS continues to encourage the development of collaborative and other projects to advance NVSL's expertise. Currently, NVSL personnel have collaborative projects with other Federal agencies such as the ARS and the Centers for Disease Control and Prevention; State governments such as the Michigan Department of Agriculture and the Texas Animal Health Commission; universities nationwide; and international laboratories such as the CFIA and WOA reference laboratories in Germany, Brazil, and the Netherlands. These projects have resulted in new epidemiologic insights and improved diagnostic capabilities.

National Animal Health Laboratory Network

The Veterinary Diagnostics program also provides support to the NAHLN, which serves as a vital early warning system for foreign and emerging animal diseases. This support includes limited infrastructure in NAHLN laboratories; NAHLN program staff; the APHIS Laboratory Portal, which provides a secure means of communication for NAHLN laboratories and proficiency test management for NAHLN and non-NAHLN APHIS-approved laboratories; personnel to provide information management system support for electronic messaging; and online quality management training the NAHLN laboratories use to maintain qualifications for participating in the network. NVSL trains NAHLN laboratory personnel to ensure proficiency and standardization for performing diagnostic tests. As of September 30, 2023, the NAHLN consisted of 63 State, Federal, and university veterinary diagnostic laboratories in 42 States. These laboratories work with the NVSL reference laboratories to test for 14 economically devastating and/or FADs and potential zoonotic diseases. These include FMD, influenza in avian and swine species, bovine spongiform encephalopathy, ASF, and classical swine fever (CSF). In 2023, network laboratories performed 430,500 diagnostic tests, an increase of 90,500 tests, to support APHIS' animal health surveillance and response programs for NAHLN scope diseases, including the NAHLN ASF/CSF active surveillance. NAHLN program staff conduct exercises to prepare participating laboratories for animal disease outbreak scenarios and enable them to remain proficient in animal disease testing. It also enables them to generate rapid, local preliminary diagnostic results while NVSL performs confirmatory testing.

APHIS has established various communication mechanisms to enable NAHLN program staff to efficiently exchange information between and among member laboratories and State and Federal officials. One method for gathering input on the network's function includes the NAHLN Coordinating Council, which consists of NAHLN laboratory directors, State animal health officials, and officials from APHIS and the National Institute of Food and Agriculture.

A laboratory designation system reflects different capability levels for surveillance, preparedness, and emergency response preparation. NAHLN laboratories designated as Level-1, -2, or -3 receive infrastructure support from USDA, and conduct fee-for-service testing for the USDA. In 2023, the Council approved 35 Level-1 laboratories including 11 branch laboratories, 24 Level-2 laboratories including 3 branch laboratories, 2 Level-3 laboratories, and 2 Federal Affiliate laboratories. NAHLN continued to maintain electronic messaging as a priority in the laboratory assessments for designation. Overall, 58 laboratories were capable of messaging results for approved NAHLN assays, and APHIS projects that number will increase to 61 laboratories in 2024.

NVSL and NAHLN continue to provide high quality and timely results for the outbreak of highly pathogenic avian influenza (HPAI). NVSL has consistently provided timely sequencing results for both domestic and wild bird species. Sequences from 1,044 HPAI isolates have been released in a Global Initiative on Sharing Avian Influenza Data, supporting APHIS' long-standing goal of improving transparency and improving access for policy makers and researchers to data that demonstrates the global circulation of the virus. As of September 30, 2023, there have been more than 7,237 wild bird detections among at least 154 species across 49 States and Washington, DC. The molecular marker E627K associated with adaptation in mammals has been identified in 14 wild birds, all in species likely to predate or scavenge on small mammals. Since HPAI was confirmed in a Wisconsin fox in May 2022, 205 animals across 18 species (terrestrial and aquatic) have been confirmed. In the United States, nearly all viruses characterized from mammals are Eurasian/North American reassortants which are representative of what is circulating in the wild bird population. There is no conclusive evidence of sustained transmission between mammals in the United States.

African Swine Fever Diagnostic Preparedness

APHIS continues to expand its rapid detection capability to maintain a timely, effective response and build surge capacity in case of an ASF outbreak. APHIS engaged in collaborative efforts at FADDL and across the NAHLN to strengthen ASF diagnostic preparedness. To enhance capacity in the NAHLN, FADDL provided proficiency testing to NAHLN laboratories, maintaining its ASF testing capacity in 2023 with 49 approved laboratories. APHIS also has 12 NAHLN laboratories performing ASF/CSF active surveillance. NAHLN is collaborating with FADDL on plans to deploy an ASF serological assay to NAHLN laboratories. FADDL developed a PCR multiplex in 2022 which was deployed to the active ASF/CSF surveillance laboratories in 2023. In addition, APHIS approved spleen and blood swabs for use in all NAHLN laboratories for FAD investigations and ASF/CSF active surveillance. This will streamline both sample collection in the field and sample processing time in the laboratory. APHIS determined that blood card samples, also approved in 2022, will be recommended for use in NAHLN laboratories during an outbreak to provide an opportunity to collect samples when cold-chain maintenance is not possible. APHIS continues to evaluate and define capability and capacity needs for a potential ASF outbreak. The Agency continues to develop strategies to use oral fluids to achieve early and rapid detection of positive cases.

To enhance a “One NVSL” approach to ASF, NVSL received additional Federal Select Agent Program approval for ASF virus work at the National Centers for Animal Health (NCAH) in Ames, Iowa. The approval is specific to Building 9, the BSL-3 high containment animal facility at NCAH. Previous approval allowed for diagnostic laboratory work in the NVSL Diagnostic Virology Laboratory only. NVSL's ASF work in Building 9 included developmental projects focused on inactivation studies, evaluation of Differentiating Infected from Vaccinated Animals testing, ASF virus characterization to create a master seed for reagent and proficiency panel development, and diagnostic sample testing. This facility is also being used to characterize and archive swine samples from the Dominican Republic (DR) while the transition to NBAF is occurring. Additionally, APHIS initiated and purchased a gamma irradiator in 2023 which will be used for developing reagents for ASF/CSF proficiency panels.

Also in 2023, APHIS led an ASF-Preparedness Exercise in Manhattan, Kansas. This event included more than 150 personnel including Agency personnel, NAHLN laboratory personnel, and State Animal Health Officials. The exercise focused on the NAHLN response in coordination with APHIS to an ASF outbreak, laboratory capacity, stockpiling and training. In addition, APHIS continued molecular and serological surveillance testing for ASF and CSF at NVSL's satellite laboratory in Puerto Rico (PR) and established a quality management system with bi-lingual standard operating procedures, work instructions, and surveillance testing forms. APHIS began the design phase of remodeling the PR Dorado Laboratory. Construction should be completed in the fall of 2025. Additionally, APHIS completed renovations to the LAVECEN laboratory in the DR, shipping more than 30 pallets of supplies and reagents to the DR. The Agency assisted this laboratory with supplies and reagents for ASF testing. More than 30 APHIS personnel deployed to the DR for near continuous coverage of the laboratory with more than 55,000 PCR

tests for ASF/CSF performed. The Agency also helped LAVECEN obtain ISO 17025 accreditation, which is a global standard specifying the primary requirements for maintaining a laboratory's competence level.

10. Zoonotic Disease Management

“One Health” is a collaborative, multisectoral, and trans-disciplinary approach—working at the local, regional, national, and global levels—with the goal to achieve optimal health outcomes while recognizing the interconnection between people, animals, plants, and their shared environment. The Zoonotic Disease Management Program enhances State, national, and international collaborative efforts to promote healthy animals, people, and ecosystems by addressing zoonotic diseases (those that pass between animals and people) and other relevant One Health issues. The Agency contributes animal health expertise, infrastructure, and networks in combination with those of human and environmental health to provide holistic solutions to complex One Health problems. The Agency collaborates with industry and State partners to develop strategies, policies, and training to help 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 program protects public health and improves animal health and marketability.

Zoonotic Disease and One Health Engagement, Investigation, and Response

In 2023, APHIS continued work on the Bovine Tuberculosis (TB) Initiative. This initiative is composed of five projects that address the challenges of bovine TB being introduced to U.S. national livestock herds from outside sources and wildlife. APHIS is the lead on this work and collaborates with USDA's Agricultural Research Service (ARS) and Mexican entities. The projects include clinical trials to test the efficacy of TB vaccines in cattle and deer, evaluation of new TB diagnostic tests, in-depth epidemiological analysis of affected herd investigations, and acquisition of TB sample data from other countries. In collaboration with public health partners focused on the zoonotic aspects of TB, this work is set to address critical gaps in slaughter surveillance. In 2023, APHIS enrolled and vaccinated more than 1,900 calves across four dairies in a vaccine study in Baja California, Mexico. APHIS will continue these vaccination efforts with the goal of enrolling and vaccinating 6,000 calves. APHIS established agreements with these operations to share production and health data to evaluate the effectiveness of vaccination. In 2023, APHIS continued evaluating a test that will distinguish between vaccinated and unvaccinated animals and has the potential to increase specificity over the current blood test. Additionally, APHIS focused on adding isolates from Central America to the World *M. bovis* Genome Database by adding isolates from Honduras, Costa Rica, and Guatemala. APHIS also assisted in the vaccination of free-ranging deer in Michigan to reduce the incidence of TB. APHIS worked with ARS to develop an effective bait-based delivery system for use in free-ranging white-tailed deer. APHIS and ARS stabilized the vaccine and are working to provide a carrier to incorporate into field deployable baits.

Antimicrobial Resistance

Antimicrobial resistance (AMR) is the ability of a microbe to resist the effects of medication previously used to treat them. To combat AMR, APHIS uses a One Health approach involving multidisciplinary coordination from public health and animal health sectors, and private sector organizations and stakeholders. APHIS works with its State, Federal, and industry partners to promote the judicious use of antimicrobials, which supports a strong, healthy, and thriving U.S. animal agriculture system as well as public health. Additionally, APHIS collaborates with State Departments of Agriculture, diagnostic laboratories, and public health officials to address AMR infections in humans found to have an animal component.

APHIS participates in discussions across the Department about the future of antimicrobial resistance activities, including efforts to develop practical mitigation strategies to reduce AMR prevalence in human and animal health. These strategies cover various efforts including AMR monitoring at the farm level, collection of antimicrobial drug use data, and efforts to promote stewardship of antimicrobial drugs by animal owners and veterinarians. In 2023, APHIS reported the results of a goat study which included animal identification, biosecurity practices, disease management, and antibiotic use and susceptibility. Additional results will be reported in 2024. The information collected allows the Agency to analyze trends in specific topics related to goat health, based on a previous national goat study.

Additionally, APHIS completed a national study focusing on ranched bison health and management in 2023. Through this study, APHIS gathered data from over 400 bison producers through a survey that focused on production and biosecurity practices, health management, and antimicrobial use. The results from this study will be reported in 2024. APHIS also continued investigating antimicrobial use and resistance trends in swine and poultry through collaborative projects. APHIS continued a public-private partnership with Pipestone Veterinary Services to collect and analyze samples from pigs and the environment, along with antimicrobial use monitoring on swine farms.

In 2023, APHIS published two scientific articles on the prevalence and resistance profiles of fecal *Salmonella* and *Campylobacter* for goat operations in the U.S., as well as the prevalence and resistance profiles of fecal *Salmonella* and *E. coli* on equine operations. Additionally, APHIS submitted one scientific article for publication on AMR profiles of *E. coli* and *Enterococcus* in goats. APHIS also worked closely with the Centers for Disease Control and Prevention (CDC) to investigate human outbreaks of drug resistant bacterial organisms stemming from animal origins. APHIS continues to be involved with the National Antimicrobial Resistance Monitoring System (NARMS). Additionally, APHIS tested 7,736 goat samples from 647 goat operations for specific bacterial disease antibodies. The results indicated an overall prevalence of 14.5 percent in domestic goats and a herd prevalence of 21 percent in the United States.

APHIS continued working collaboratively with the University of Minnesota to examine antimicrobial use and resistance in poultry boiler operations. In 2023, APHIS announced 12 awards totaling more than \$3.2 million in cooperative agreement funding to create antimicrobial resistance dashboards. These awards will help advance scientific knowledge around antimicrobial resistance through partnerships with the National Association of State Departments of Agriculture and numerous universities. These public-private partnerships will improve access to information on antimicrobial resistance in livestock, poultry, and companion animals. Once created, APHIS will use the dashboards to monitor trends in antimicrobial resistance patterns, detect emerging resistance profiles, and better understand relationships between antimicrobial use, animal health management practices, and antimicrobial resistance. APHIS continued a cooperative agreement with the New York Farm Viability Institute to evaluate how to change human behavior on dairy farms related to antimicrobial stewardship.

APHIS works with the Food and Drug Administration (FDA)-Center for Veterinary Medicine on their approach to measure the use of antimicrobial drugs in food producing animals. APHIS annually reports progress updates to partner agencies on activities associated with the National Action Plan for Combating Antimicrobial Resistance. In 2023, APHIS continued to participate on the Presidential Advisory Council for Combating Antibiotic Resistant Bacteria. APHIS also presented information on antimicrobial resistance activities at several events including the National Institute for Antimicrobial Resistance Research and Education annual meeting, the World AMR Congress, and the National Institute for Animal Agriculture's Annual Antibiotics Symposium.

In 2023, APHIS transitioned a five-year long AMR pilot project to a long-term antimicrobial resistance monitoring program that displays antimicrobial susceptibility and genetic data from sick animals across 35 veterinary diagnostic laboratories. An interactive dashboard summarizing the results from the entire program was published on the National Animal Health Laboratory Network website. This dashboard provides near-real time data on susceptibility test results from six animal species and nine bacterial pathogens. Susceptibility testing data from over 25,000 isolates and whole genome sequencing data from over 3,400 isolates were collected by the project. Progress on this effort is reported quarterly as a USDA Agency Priority Goal for 2022 and 2023 online: <https://www.performance.gov/agencies/USDA/apg/goal-1/>.

APHIS participated in several international AMR activities in 2023. APHIS and the FDA submitted a report on antibiotic use in animal agriculture to the WOAHA Global Database on Antimicrobial Agents Intended for Use in Animals in compliance with the international standards. APHIS participated in the Quads Animal Health Alliance Antimicrobial Resistance Network, meeting bi-monthly with the United Kingdom, New Zealand, Australia, and Canada, to share information on topics including progress on AMR National Action Plans, challenges regarding antimicrobial use and resistance monitoring, communication activities, and relevant legislation. APHIS continues to participate in the Transatlantic Taskforce on Antimicrobial Resistance. APHIS also continues to review AMR-related statements and positions that stakeholders and other governmental and nongovernmental agencies promulgate that may have implications for animal agriculture. For example, APHIS monitors European Union (EU) legislation related to antimicrobial use in animal agriculture, and potential implications for exporting animals and animal products to the EU.

Zoonotic Disease Preparedness

APHIS continues to coordinate with cross sector partners to develop and implement national and international One Health strategies and strengthen our emergency response capacities to ensure a quick response to zoonotic diseases with pandemic potential. In 2023, APHIS continued to participate in several multisectoral groups that emphasize the mission of One Health, including the Interagency Foodborne Outbreak Response Collaboration (IFORC). IFORC develops and coordinates Federal best practices for detection of foodborne outbreaks and interagency and public health communication strategies and processes. Additionally, APHIS continues to participate in the North American Plan for Animal and Pandemic Influenza Health Security working group. This group exchanges information on animal and human health sector responses to SARS-CoV-2, include modeling, detection, diagnostic information and healthcare capacity and capability data. In 2023, APHIS shared animal health information with the CDC on monkeypox, Japanese encephalitis virus, and highly pathogenic avian influenza.

Additionally, APHIS coordinates and reports USDA's international efforts related to implementation of the Global Health Security Agenda (GHSA), a partnership of over 70 nations, international organization, and non-governmental stakeholders to minimize the threat of infectious diseases on the world stage. APHIS coordinates GHSA reporting on zoonotic disease, AMR, biosafety and biosecurity, national laboratory systems, and real time disease surveillance, ensuring interagency collaboration and communication with relevant agencies and stakeholders, both international and domestic. APHIS, in coordination with other GHSA member countries, contributed to the Zoonotic Disease Action Package in 2023, which is used to implement guidance and models on behaviors, policies, and practices to minimize the spill over, spread, and full emergence of zoonotic disease into or out of human populations.

APHIS uses its position as a coordination leader on the national effort to address the animal health component of One Health during the COVID-19 pandemic. In 2023, APHIS reported SARS-CoV-2 test results to the WOAHP as positive detections were identified, contributing to international knowledge of SARS-CoV-2 infections in animals. APHIS subject matter experts provide consultation and guidance to State animal and public health agencies on decisions and testing of animal for SARS-CoV-2.

Selected Examples of Recent Progress - Plant Health:

1. Agricultural Quarantine Inspection

APHIS and the Department of Homeland Security's (DHS) Customs and Border Protection (CBP) safeguard U.S. agricultural and natural resources from the introduction of invasive pests and diseases through the Agricultural Quarantine Inspection (AQI) program. APHIS assesses the risks associated with international trade and specific imported agricultural products and develops import regulations to exclude foreign pests and diseases and protect U.S. agriculture. In addition, the Agency conducts off-shore pest risk reduction activities including foreign commodity pre-clearance programs; trains agricultural inspectors and detector dog teams to work at U.S. ports of entry; inspects and takes action as necessary on imported plant propagative materials; monitors the fumigation of arriving containers and cargo to mitigate pest risks; conducts trade compliance activities to detect violations of APHIS' import regulations and prevent smuggling; and provides the scientific support necessary to carry out these activities and those carried out by CBP, including, among other things, the authoritative and timely identification of pests necessary to determine whether regulatory actions on imported products are required.

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 preclearance inspections of passengers and the port-of-entry arrival of commercial vessels, trucks, loaded railroad cars, aircraft, and passengers entering the United States from a foreign destination. In 2023, AQI user fee collections increased over the previous years as international travel continued to rebound following the decline associated with COVID-19, with collections only about 6 percent lower than in 2019, the last full fiscal year prior to the pandemic. However, the program's costs and operations have changed significantly since that time, as the program responded to changes in trade industries as well as increasing costs. To ensure that the program can continue to protect U.S. agriculture, APHIS published a proposal to update the user fee rates on August 11, 2023, based on APHIS and CBP evaluations of changing costs and operations for the program. APHIS held a series of six webinars for stakeholders impacted by the fee changes. The comment period closed on October 10, 2023.

APHIS also receives appropriated funding for pre-departure inspections of passengers and cargo traveling from Hawaii and Puerto Rico to the continental United States to prevent the introduction of non-native agricultural pests and diseases into the continental United States while facilitating the movement of travelers and agricultural goods. APHIS inspects all passenger baggage leaving these islands because of the risks associated with pests of fruits and vegetables grown in these areas. 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 prevents damage to the country's agricultural industry and negates the need for cost 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 on APHIS' behalf for shipment to the continental United States.

APHIS inspectors oversee the preclearance of certain commodities by inspecting shipments for export in the country of origin, monitoring treatments where required, or by monitoring systems approaches for pest mitigation (a combination of integrated pest management practices used in the field and after harvest). In most cases, exporters of the pre-cleared commodity cover the costs of this APHIS service through trust funds established for this purpose.

Cooperative Program Management

APHIS works with CBP to protect America's agricultural resources and food supply by inspecting international passenger baggage, cargo, and conveyances. APHIS and CBP share management of the program through working groups and daily collaboration. Senior leadership of both Agencies meet frequently to develop joint plans and coordinate efforts in priority areas, ensure clear and balanced decision-making, streamline effective outreach and communication, and improve organizational structure and leadership to support the shared work in the agriculture safeguarding mission. In 2023, APHIS trained 359 new CBP agriculture specialists and conducted basic agricultural threat training for 1,440 first line CBP officers. In addition, APHIS provided training support to CBP Agriculture Specialists who delivered military cooperater inspector training to certify 483 Department of Defense (DOD) cooperators who perform agriculture quarantine inspections in mainland U.S. military installations and delivered USDA Military Cooperator Train-the-Trainer certification workshop training to 24 CBP Agriculture Specialist field trainers. These cooperators prevent the entry of agricultural pests and diseases associated with military equipment and/or personnel returning from overseas military installations to the United States. Additionally, APHIS trained 46 canine teams and 32 agriculture field trainers for CBP.

Preclearance and Offshore Risk Reduction

One of the most effective ways to facilitate the safe movement of commodities into the United States is to address pest threats where they originate. In 2023, APHIS precleared 3.31 billion pounds of 70 different fresh fruits and vegetables from 20 countries before they arrived in the United States. Additionally, APHIS inspected 2.96 billion pounds of avocados in Mexico as a part of a systems approach to facilitate safe trade. APHIS has overseen this program since 1997, and the program accounts for about 88percent of avocado imports to the United States. APHIS also precleared 1.9 million pounds of cut flowers, bulbs, and perennials from Chile and 858 million bulbs and perennials from the Netherlands and South Africa.

APHIS conducts certain inspections and certifications overseas to verify that treatment or production facilities meet the Agency's standards and regulatory requirements to help protect U.S. plant health from pests that could move into the United States with high-demand, large-volume commodity imports. In 2023, APHIS certified more than 200 phytosanitary treatment facilities, including 81 facilities in Mexico, 10 facilities in Central America, 3 facilities in Caribbean, 112 facilities in South America, and 4 facilities in Asia. APHIS is currently tracking 297 offshore treatment facilities in 19 countries. Among the most common mitigation types are hot water treatment (112 active facilities) and methyl bromide fumigation (83 active facilities). These actions ensure the efficacy of offshore treatments that protect American agriculture from potential pests on imported commodities before they arrive onshore.

Through audit-based monitoring programs, APHIS oversees almost 90 commodity programs that mitigate pests before they reach U.S. ports. Of these, 12 programs require annual audits of all or a portion of their facilities. APHIS completed 60 audits and recertifications, including 18 *Ralstonia* exclusion program facilities for annual geraniums, six offshore greenhouse certification program facilities, twenty Taiwan orchids in growing media facilities, and 13 clean stock program facilities for dracaena (a genus that includes many popular houseplants). These three programs

alone allowed for the safe import of 318 million propagative plant units with a wholesale value of \$75 million (based on industry-provided data).

To help the U.S. military prevent the spread of foreign animal diseases and plant pests, APHIS worked with the U.S. Department of Defense to inspect 29,070 shipments of personal goods, more than 10 million pieces of military cargo, and 12,433 personal vehicles (POVs) from 18 countries before they returned stateside to prevent the introduction of foreign pests and disease APHIS completed annual evaluations and recertifications of military preclearance programs in 110 countries in Europe and Africa, ensuring that these programs meet all administrative, programmatic, and safeguarding requirements. APHIS trained 203 military service members to manage these programs locally in Europe and Africa.

APHIS partnered with the U.S. Department of Defense (DOD) to accomplish the Talisman Sabre 23 exercise in Australia. This was the largest military exercise in the southern hemisphere in history. There were 12 partner nations collaborating in the exercise. Six USDA officers were assigned to the exercise and cleared more than 400 military personnel with their packing and webbing. The team also verified that hundreds of tractors, trucks and other vehicles, and aircraft met agricultural requirements.

Defoliating moth species from Asia, or the flighted spongy moth complex (FSMC) made up of five *Lymantria* species, present a significant threat to U.S. forests. These moths can lay their eggs on the superstructure of maritime vessels, allowing the pest to spread into new territories. In partnership with CBP, APHIS coordinated the inspection of approximately 4,080 vessels that had visited high-risk ports within in the last 24 months. Vessels can request a predeparture FSMC inspection certificate from 28 national plant protection organization (NPPO)-accredited certification bodies in high-risk countries, including China, Japan, Korea, and Russia. APHIS coordinates on the standard for these inspections with its counterparts in Australia Canada, Chile, and New Zealand. Four ships had FSMC infestations in 2023.

APHIS also helps keep plant pests and diseases offshore with cooperative programs like the Greater Caribbean Safeguarding Initiative (GCSI), the Don't Pack a Pest Program, and the PestLens website and early warning system. The GCSI is a cooperative framework of 42 NPPOs and regional partner organizations in the Caribbean region that funded 6 safeguarding projects to mitigate pest risk near U.S. borders in 2023. The Don't Pack a Pest program provides traveler education materials in participating countries and territories to stop the introduction of pests and diseases travelers may bring in personal baggage. APHIS works with 18 partner countries and territories on the Don't Pack a Pest program, expanding to the first Central American partner country, Costa Rica, in 2023. In cooperation with North Carolina State University, APHIS provided 17 pest alert notifications to more than three thousand registered users of PestLens, including 54 new pest-related articles, and added 30 new pests, to the Global Pest and Disease Database. These systems serve as a resource for APHIS and other plant health regulatory officials that conduct plant health risk assessments and develop inspection policies for imported goods, among other things.

Pre-Departure Inspections

APHIS inspected the baggage of more than 15.9 million passengers prior to departing Hawaii and Puerto Rico and intercepted approximately 250,000 prohibited items and 2,000 quarantine-significant pests in 2023. APHIS conducts commodity certification and inspection programs to facilitate interstate trade between Hawaii, Puerto Rico, and the continental United States. In 2023, the program conducted 100,087 inspections of regulated agricultural commodities shipped from Hawaii and Puerto Rico. In addition, the program oversaw or conducted 4,171 cargo treatments in Hawaii and Puerto Rico.

CBP Facilitated Port-of-Entry Inspections

In 2023, nearly 382 million passengers and pedestrians entered the United States by air, bus, ship, train, or on foot. The program also conducted secondary agricultural inspections of 452,601 of the approximately 72 million passenger vehicles entering the United States from Canada and Mexico in 2023. In addition, inspectors cleared more than 39 million ships and inspected more than 1.3 million cargo, mail, and express carrier shipments, intercepting 56,061 pests.

Propagative Plant Inspection

Imports of nursery stock and other propagative plant materials can serve as significant pathways for invasive pests and diseases. To reduce the pest and disease risks associated with such imports, APHIS requires that certain imported plant materials enter the United States through one of 16 plant inspection stations located at or near ports of entry throughout the country and territories at major international airports and seaports, and at major crossings along the U.S.-Mexico border. Plant Health Safeguarding 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 2023, inspectors cleared 27,235 imported shipments containing 1.87 billion plant units (cuttings, rooted plants, tissue culture, etc.) and over 670,811 kilograms of seeds of woody plants. Through these inspections, PPQ employees detected 5,293 pests of which 2,176 were quarantine significant pests at the plant inspection stations. In addition, the stations conducted 3,753 treatments or other actions to remediate pests on more than 13 million plant units and 235,093 kilograms of seed.

Plant Germplasm Quarantine

APHIS' Plant Germplasm Quarantine Program (PGQP) provides quarantine services for importing plant cultivars and germplasm safely to prevent foreign pathogens from entering our agricultural production areas and environment. In 2023, PGQP released from quarantine 10 bamboo clones, 12 cassava clones, 9 grass clones, 4 kiwis, 135 pome fruits, 63 potato clones, 69 potato true seed lots, 12 rice seed lots, 22 stone fruit clones, 163 Prunus seedlings, 22 sugarcane clones, and 11 sweet potato clones. Seventy-nine of the 135 pomes, 3 of the stone fruits, 3 of the potato clones, 13 of the sugarcanes, and 7 of the sweet potatoes released this year resulted from therapy performed on the infected originally imported plants. Quarantine regulations prohibit entry of these high-risk crops into the United States in commercial quantities, but importers can bring in small quantities through an APHIS-approved plant quarantine program. All released clonal accessions and many of the seed accessions tested negative for pathogens by polymerase chain reaction and high throughput sequencing.

Pest Identification

When pests are detected during Agriculture Quarantine and Inspection activities, the program must identify them to determine if they are considered quarantine significant under APHIS regulations (i.e., if they are exotic and could pose a significant threat to U.S. plant health, if the program can allow the cargo entry into the United States, and what, if any, mitigation measures would be required.) In 2023, APHIS processed and identified approximately 92,000 AQI pest interceptions, with approximately 45,000 being quarantine significant. In 2023, APHIS continued its use of digital imaging technology for pest identification, and APHIS National Specialists performed 81 percent of their final identifications for cargo on hold based on digital images, an increase of 4 percent over 2022. APHIS will continue the use of digital imaging technology as means to improve the timeliness of pest identifications for urgent submissions (i.e., those for which cargo is on hold pending a pest identification). APHIS and CBP use the Cargo Release Authority (CRA) program to reduce the number of pests that CBP must submit to APHIS for identification, speeding up the inspection process for shipments that contain no suspect quarantine pests. Through the CRA program, APHIS provides training and job aids that allow CBP Agriculture Specialists to recognize frequently intercepted, easily identifiable, low-risk organisms, and to release the cargo if the organism is not a quarantine significant pest. APHIS grants CRA after the Agriculture Specialist has successfully identified a particular pest a certain number of times and submitted documentation to APHIS.

Risk Analysis and Methods Development

APHIS' Plant Pest Risk Analysis (PPRA) unit develops pest risk analyses and epidemiological approaches to support and improve pest exclusion programs and decision making. In 2023, APHIS completed approximately 200 risk analyses associated with imports, exports, invasive pest threats, and other programmatic requirements. This total includes 28 analyses to open, expand, or maintain export markets for U.S. producers and 26 risk assessments for import requests from foreign countries, along with 15 revisions to previous assessments. PPRA's work also included evaluations of 27 newly detected pests by the New Pest Advisory Group, 9 pathway analyses and spread models, 2 economic analyses supporting operational and policy decisions, and 10 New Pest Response Guidelines to proactively prepare for emergency responses. These products identify potentially harmful plant pests and diseases and help APHIS decide what mitigating actions to take in order to prevent their entry into or limit their spread or

economic impact within the United States. APHIS' Plant Pathogen Confirmatory Diagnostics Laboratory (PPCDL) develops, adapts, validates, and utilizes diagnostic methods for the detection of regulated plant pathogens. In 2023, PPCDL expanded the use of molecular diagnostic tools to three additional plant inspection stations at ports of entry for a *Ralstonia*, a pathogen that cannot be detected visually, after rolling it out at one plant inspection station in 2022.

Smuggling Interdiction and Trade Compliance (SITC)

SITC identifies and closes smuggling pathways for prohibited agricultural products into U.S. commerce. SITC works closely with CBP to identify and target agricultural risks at the ports of entry before they enter U.S. commerce. In 2023, SITC conducted 16,827 surveys and made 3,028 seizures of prohibited agricultural items in non-Port of Entry locations. Of these seizures, 447 were made in express courier facilities. Those seizures totaled 294,779 pounds of prohibited and/or restricted plants, plant products, meat, and meat products valued at approximately \$1.1 million. SITC initiated 1,593 product traces including 67 for sales conducted via ecommerce. Additionally, SITC conducted 24 recalls for restricted material, including noncompliant wooden handicrafts and grain products. Total seizures as a result of recalls weighed 65,024 pounds and had an estimated value of \$218,073.

Treatment Program

APHIS supports U.S. imports of plants and plant products by facilitating and monitoring phytosanitary treatments. APHIS facilitated entry of regulated agricultural cargo through the monitoring of 15,310 fumigations (477 commodities from 85 countries), 40,161 cold treatments (24 commodities from 17 countries), 6,483 irradiation certifications (18 commodities at 11 facilities in 6 countries), and 164 heat treatments of Niger Seed to reduce pest risks on cargo that would not otherwise have been allowed entry. The treatment program expanded to allow cold treatment at a new port of entry and additional commodities to be treated at an established irradiation facility within the United States.

Permitting

APHIS requires that importers apply for permits for the importation of certain high-risk regulated plants and plant products for consumption or propagation into the United States and transit through the United States. These products include regulated plants and plant products, pests, and pathogens for diagnostic and research, biological control agents, soil, and Federal noxious weeds. Permits notify importers of commodity import requirements to ensure products and commodities making entry into the United States will not harm American agriculture. PPQ issued 28,155 import permits for regulated plant material, organisms, and soil, and issued 8,361 letters (Letters of Denial or Letters of No Jurisdiction) in 2023 in response to permit application requests. In addition, the Plant Protection and Quarantine Customer Support Center responded to 33,286 customer support calls and emails to assist stakeholders with import-related questions. APHIS continues to improve the customer experience through the development and delivery of the new eFile permitting system. The eFile system supports automated permitting for more than 45 percent of all permit types and reduces the wait time for a permit to be issued to within minutes, as compared to 2-4 weeks using the previous ePermits system.

Phytosanitary Export Certification

APHIS facilitates the export of agricultural shipments by tracking plant health import requirements for approximately 200 countries and provides certifications to U.S. exporters to help ensure that U.S. products meet other countries' requirements. More than 2,100 Authorized Certification Officials at the Federal, State, and county levels can access countries' certification requirements online and conduct inspections to issue phytosanitary certificates. These certificates facilitate the entry of commodities into foreign markets. The program employs a web-based Phytosanitary Export Database, which is free to exporters, and enables them to research requirements and better prepare for shipping. In addition, this program uses a Phytosanitary Certificate Issuance and Tracking (PCIT) database that allows exporters to apply for certificates, schedule inspections, and pay certification fees. PCIT also collects State and county cooperator fees in addition to the USDA fees for phytosanitary certificates. In 2023, APHIS collected more than \$38.3 million for certificates and remitted more than \$21.8 million of that amount to State and County cooperators for certificates they issued. Currently, 38 States and 35 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. Additionally, the Agency is continuing its effort with international counterparts exchanging phytosanitary certificates electronically. Over the last several years, APHIS

worked with the International Plant Protection Convention to establish an electronic hub that countries can access to exchange export certificates with trading partners. The hub provides a central point for document exchange that eliminates the need for countries to establish electronic connections with each trading partner individually. Recent studies by industry have shown that paperwork errors slow down exports, leading to the majority of costly delays. The United States began using the hub in May 2018 and is actively exchanging certificates with 99 countries now (an increase of 19 countries in 2023) with more than 351,000 phytosanitary certificates received and more than 292,000 sent (49 percent of the total number of certificates issued). In 2023, APHIS, State, and county officials issued more than 591,000 Federal export certificates for agricultural shipments. APHIS implemented a new compliance-based program for high quality grains. This program allows U.S. shipments to meet Japan’s new requirement for phytosanitary certificates for shipments that were previously exempt and facilitates exports to other trading partners. APHIS approved eleven facilities as part of the program, and APHIS and States issued more than 500 certificates to thirteen countries for more than 35,000 metric tons of grains.

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 \$15 billion since it entered the United States in the late 19th century (National Cotton Council of America, 2021). APHIS began the initial BW eradication program along the Virginia-North Carolina border in the early 1980s. The BW eradication effort involves mapping cotton fields, using pheromone traps to evaluate weevil presence, and applying pesticides to treat infested crops. Once BW is eradicated from an area, cotton growers rely less on insecticides, thus reducing their production costs. Over the course of the eradication efforts, the program has increased these growers’ global competitiveness, primarily through reduced production costs and increasing yields.

To date, APHIS and cooperators have eradicated BW from 99 percent of the 13.76 million acres of U.S. cotton (Acreage Report, National Agricultural Statistics Service, 2022). The Lower Rio Grande Valley (LRGV) is the last zone within the United States where the pest persists. BW populations in neighboring Mexican cotton producing State of Tamaulipas impact eradication efforts in the LRGV. Therefore, APHIS and its cooperators in Mexico’s National Service for Agrifood Health, Safety and Quality (SENASICA) and Texas Boll Weevil Eradication Foundation (TX-BWEF) are working to eradicate BW from the Mexican state of Tamaulipas.

APHIS continued virtual monthly meetings with SENASICA to maintain open communication about BW eradication successes and challenges throughout the 2023 growing season. APHIS engaged its international counterparts in Mexico City to expand its engagement with SENASICA. APHIS will continue engaging SENASICA at multiple levels to ensure growers adhere to eradication and quality control protocols, as well as ensure growers adhere to defoliation, harvest, and stalk-destruction timelines set by the BW eradication program.

In addition to monthly meetings with cooperators in 2023, high-level officials from APHIS and SENASICA gathered to discuss and amend the BW Eradication Operational Plan for the 2023 growing season. Amendment discussions included, updating trapping protocols, and requiring cooperators in Texas as well as Mexico to maintain the same trap density and service intervals during the winter months between growing seasons. These vigilant BW monitoring and trapping methods inform cooperators of BW activity and removes active BW, preventing the pest from establishing and reproducing in the fields prior to the growing season. These amendments help to ensure accurate and timely treatment of areas where BW captures are present and refined previously adopted practices, for a more rigorous quality control protocol for BW monitoring, knowledge retention, and data integrity.

In 2023, APHIS continued its support for the BW Eradication Program in Tamaulipas, Mexico, through its agreement with the North American Plant Protection Organization (NAPPO) which funds ultra-low volume malathion and aerial treatment expenses. Cooperators from TX-BWEF provided technical training and assistance to SENASICA and growers in Tamaulipas to implement the rigorous quality control program protocols. This includes

providing technical assistance through the smart device application that enables employees and TX-BWEP managers to monitor trap deployment, trap servicing, and treatment activities in real time.

Environmental conditions in the LRGV and Northern Tamaulipas present APHIS and its cooperators with challenges that interfere with BW monitoring and treatments. Extreme heat in 2023, accelerated cotton growth by several weeks in the LRGV and Tamaulipas areas, prompting an earlier harvest. Extended heat and drought conditions hardened the soil, hindering growers' ability to plow down their fields and prolonging the availability of hostable materials for BW. Additionally in Tamaulipas, security events associated with cartel activity prevented growers from monitoring and treating for BW activity. Monitoring and treatment gaps extending two weeks or more may allow reproductive pockets of BW to generate high numbers.

Overall BW activity peaked in late August and mid-September in both regions. Captures in Tamaulipas increased by 486 percent, with 1,964 captures in October 2023, compared with 404 BW captures by the same time in 2022. Cooperators in Tamaulipas treated 344,883 acres in 2023, compared with 447,026 treated acres in 2022. Captures in LRGV decreased by 54 percent, totaling 2,175 by October 2023, compared with 4,033 BW captures by the same time in 2022. Cooperators treated 569,445 acres in the LRGV, compared with 447,047 that needed treatment at the same time the prior year.

APHIS will continue partnering with the U.S. cotton industry to reduce the BW population in the LRGV and to conduct BW surveillance efforts for all U.S. cotton production areas in 2024. APHIS will also continue to partner with SENASICA's Tamaulipas BW Eradication Program to provide technical assistance and funding for their parallel program to the LRGV program. APHIS is committed to monitoring BW to ensure the early detection of any reintroductions, and to work toward successful eradication of BW in the United States in the coming years.

In the United States, although the volume of acreage planted with cotton varies from year to year, the PBW commonly caused cotton losses of 20 percent or more in affected areas. Since the PBW control program began in 1967, APHIS and cooperative program partners have eradicated the PBW from Southern California, Arizona, large areas of New Mexico, and the El Paso/Trans Pecos region of Texas. On September 26, 2018, APHIS issued a Federal Order releasing Arizona, California, New Mexico, and Texas from the PBW quarantine. On October 19, 2018, APHIS, in conjunction with industry partners, officially announced the successful eradication of PBW from all commercial cotton-producing areas in the continental United States. In 2018, Florida added a PBW quarantine for an area in the Everglades where a wild PBW population has persisted for the last 80 years and appears to only be active in wild cotton. As a result, APHIS, along with the Florida Department of Agriculture and Consumer Services and the Florida cotton industry began surveying the perimeter of the commercial cotton area in the northern part of the State and the adjacent okra fields in the city of Homestead, to ensure that PBW has not spread. In 2023, APHIS continued to survey these areas in Florida to ensure that isolated PBW populations in southern Florida do not move into the commercial cotton production areas north of the Everglades. These surveys will continue in 2024.

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 grasshoppers and Mormon crickets (GMC), imported fire ants (IFA), Karnal bunt, and witchweed from spreading and impacting export markets for U.S. farmers. These programs help protect resources that small, rural communities depend on for income.

Grasshoppers and Mormon Crickets

APHIS cooperates with Federal, State, Tribal, and local agencies, organizations, and institutions to conduct survey and suppression activities in western States to reduce damage that GMC outbreaks cause, protecting rangeland resources that serve as forage for livestock, provide habitat for wildlife and ecosystem services, and provide recreation opportunities. A 2012 University of Wyoming study found that healthy rangeland provides forage value worth \$6.7 billion and overall benefits ranging from \$10.7 to \$21.2 billion. 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, GMC can also devastate cultivated crops such as alfalfa, barley, corn, and wheat. Damage from grasshoppers and Mormon crickets also reduces habitat and food sources for wildlife, which can threaten animal and plant biodiversity as well as the rangeland's ability to sequester carbon. Infestations often cover vast acreage, and landowners or land managers may need Federal support to control them. The program helps landowners and land managers by providing population information, helping to predict where grasshopper populations could develop into outbreaks, and providing technical assistance about options for dealing with problem-level populations. By providing ongoing information, and advice to land managers and conducting suppression treatments where necessary and possible, this program helps protect 661 million acres of rangeland across the western United States.

In 2023, APHIS conducted surveys in 13 States for GMC, collecting data at approximately 21,511 survey points. Grasshopper populations can build cyclically, and high population levels that began two years ago in 2020 continued into 2023. With available funding, APHIS was able to conduct treatments for small areas with high populations. The program conducted treatments in six States in 2023, using FCREP funding and reimbursements from participating landowners. The Plant Protection Act specifies that the Federal government covers 100 percent of treatment costs on Federal lands; 50 percent on States lands; and 33.3 percent on private lands. APHIS conducted treatments on 138,495 acres in Arizona, Idaho, Montana, Nevada, Oregon, and Utah. These treatments protected rangeland forage and wildlife habitat on more than 290,000 acres. Before conducting any grasshopper treatments, APHIS confirms the species of the grasshopper as some do not cause damage to rangeland and others can even provide ecological benefits by eating weeds (leaving grasses for grazing livestock). At the state level, APHIS works with land owners and land managers including the Bureau of Land Management, Tribes, ranchers, and local governments to coordinate requested treatments and to ensure treatments conform with established environmental standards to minimize impacts on non-target species.

Imported Fire Ants

IFA is a major public nuisance and serious agricultural pest causing approximately \$6.7 billion in damage to homeowners, agriculture, and natural ecosystems within the IFA Federal quarantine area, according to the Ant Pests Community led by the National Institute of Food and Agriculture's Extension Service (<https://ant-pests.extension.org>). The economic impact if IFA reached all suitable habitats in the United States where IFA could become established is greater than \$10.6 billion per year (Economic Evaluation of the Regulatory Program for Imported Fire Ants, APHIS, March 2018). Currently, IFA infests more than 374 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, which are under a partial or full State quarantine.

In 2023, the program expanded the existing imported fire ant quarantine areas in Virginia to include Charlotte, Dinwiddie, Halifax, Lunenburg, and Sussex Counties. The IFA program continues to work with university researchers and USDA's Agricultural Research Service (ARS) to develop new pesticide treatments to prevent IFA movement on nursery stock and sod and to evaluate ways to optimize existing biological control agents for IFA control. The program supported 22 cooperative agreements in all infested states and territories for inspecting nurseries and conducting delimiting surveys. The program supported California to maintain the scope of their annual IFA surveys. The program provided funding to conduct joint surveys with the New Mexico Department of Agriculture staff to collect IFA infestation data for potential deregulation actions. The IFA program continues to provide regulatory guidelines to stakeholders for the treatment of regulated articles, oversight, and enforcement to help prevent the human-assisted spread of the pest.

Karnal Bunt

The FCREP program also addresses Karnal bunt, a fungal disease of wheat that was first detected in the United States in 1996. Many U.S. trading partners will not accept U.S. wheat unless it is certified to originate from areas where Karnal bunt is known not to exist. The program prevents the disease from entering the grain market system, spreading beyond the areas of Arizona where it is currently found (portions of two counties in the State, accounting for 0.12 percent of wheat acreage in the United States). In 2023, the program removed 63,936 field acres from Karnal bunt regulated areas on tribal and non-tribal lands in Arizona based on the program's protocols. These activities prevent Karnal bunt from affecting other States. In 2023, 28 wheat-producing States participated in the Karnal bunt national survey. The program tested 694 samples with no positive detections. Based on this national survey, the program certifies wheat exports free of Karnal bunt, assuring trading partners about the safety of U.S. wheat exports, retaining export markets, and facilitating wheat movement into domestic and international markets. In 2022, farmers across the country planted approximately 46 million acres of wheat and harvested 1.6 billion

bushels of wheat with a value of \$14.6 billion (National Agricultural Statistics Service, Crop Values 2022 Summary and Crop Production). The United States exported 21 million metric tons of wheat, valued at \$8.3 billion; wheat products valued at \$196 million; wheat flour valued at \$172 million to 68 countries (Foreign Agricultural Service, Global Agricultural Trade System). Without the successful Karnal bunt quarantine and survey program, wheat trade would be disrupted.

Witchweed

Another concern for the FCREP program is witchweed, a parasitic plant that can significantly damage corn, rice, sorghum, and sugarcane. If witchweed were to spread throughout the Corn Belt, it could decrease crop yields for corn and sorghum by up to 10 percent and could negatively impact trade in commodities from these areas. Since program activities began in 1957, APHIS and cooperators have successfully eradicated witchweed from 99 percent of the infested areas in North Carolina and South Carolina. These activities consist of frequent field inspections, treatment of infested acres (tillage, ethylene injections to stimulate witchweed seeds to sprout, and hand-pulling and herbicide application), post-eradication surveys, and addressing any new infestations. The program surveyed more than 30,000 acres in 2023 (surveys continue through the fall and are still ongoing). At the end of 2023, 3,232 acres remain regulated, including acres in two risk categories—higher-risk acres where witchweed has been more recently detected and lower-risk acres approaching the point at which they can be deregulated. Because witchweed seeds can remain viable in the soil for up to 14 years, and a host plant must be present for witchweed germination, year-to-year fluctuations in the number of acres infested are common. The program detected 64 new or reinfested acres during 2023. By preventing the spread of this damaging weed, the program indirectly protects U.S. corn production, which covered more than 88 million acres in 2022 valued at \$91.7 billion (National Agricultural Statistics Service, Crop Values 2022 Summary).

Roseau Cane Scale

Roseau cane is an important grass species in wetland areas of the lower Mississippi Delta, Louisiana. The plant's root system provides wildlife habitat, protects the interior from storm surges, and protects riverbanks from erosion, which impacts the Mississippi River navigation channel. However, die back of the cane was noted in 2016 and while investigating die back, the invasive scale insect Roseau cane scale was found infesting affected stands. Researchers from Louisiana State University (LSU) AgCenter started investigating potential stressors causing die back of Roseau cane in the Mississippi River Delta. These stressors include high water levels, salinity intrusion, scale insects, plant pathogens, and soil chemistry. To further investigate the possible causes of the die off and build management and restoration plans, starting in 2018 LSU formed a multi-disciplinary and multi-institutional team with support from APHIS and collaboration with ARS. Research objectives include the biology and control of the scale insect that affects Roseau cane; other stressors that may affect the health of Roseau cane, including soil composition, pH levels, and nitrates; marsh grass restoration techniques; host plant resistance to scale insects; impacts of both beneficial and pathogenic microbes on Roseau cane; and restoration ecology. With 2023 funding from APHIS, LSU expanded investigations to include Roseau cane's metabolic responses to stressors including grazing by herbivores, microbes, salinity, and flooding; evaluations of foliar fungal and viral diversity and virulence; remote sensing for monitoring and modeling the die back and restoration sites; effects of the dieback on sedimentation in the navigation channels; and identification work and host specificity testing of *Aprostocetus* sp., the biological control agent of Roseau cane scale. The work to date by the Roseau cane die-back team improves our understanding of plant stressors on Roseau cane and the biology, distribution, feeding ecology, and impact of the scale insect attacking the cane at the Mississippi River Delta. Project scientists detected the presence of *Aprostocetus* sp., arriving independently in the Mississippi River Delta, and the team is evaluating its impacts on cane restoration plots. Early results show promising potential.

Cogongrass

Cogongrass is an invasive perennial weed that is a prolific seed producer and forms an extensive rhizome network. The primarily wind-dispersed seeds spread easily along rights-of-way and in other disturbed areas encouraging population expansion. Cogongrass readily invades pine plantations and is believed to create chemical interference that decreases pine production. Moreover, cogongrass is difficult to control because the rhizomes are drought, fire, and herbicide tolerant. APHIS estimates that this species has the potential to spread across 82 percent of the United States. In 2023, APHIS provided \$1.605 million from FCREP to Alabama and South Carolina to support survey, outreach, and control activities related to cogongrass infestations in these States. In addition, APHIS used a portion of the funding for cogongrass to support a project aimed at developing new management methods for the weed.

Additionally, APHIS provided \$1.758 million to Alabama, Georgia, and Mississippi from funds available under a General Provision (Sec. 775) of the 2022 Appropriations Act, Consolidated.

4. Pest Detection

The goal of programs funded by Pest Detection is to document and evaluate the presence or absence of plant pests and diseases of Federal regulatory significance in the United States. This information is the basis of APHIS' regulatory efforts and pest management programs that preserve economic opportunities for farmers (i.e., interstate commerce and international trade) and safeguard U.S. agricultural and natural resources. The programs collaborate with Federal agencies, state departments of agriculture, Tribes, academic institutions, and industry partners in all 50 States and several U.S. Territories to conduct activities.

APHIS and its cooperators carry out plant pest surveys through programs funded by the pest detection line item, including the Cooperative Agricultural Pest Survey (CAPS) program. APHIS provides national coordination, develops policies and procedures for surveys, and provides funding to cooperators to conduct surveys through CAPS. In addition to funding the surveys, APHIS makes available funding for a survey coordinator position in each State as part of the personnel infrastructure necessary to do surveys. In 2023, the program funded a network of 49 State Survey Coordinators. The Pest Detection program also coordinates development of survey tools for high-risk pests. In 2023, APHIS continued developing climate suitability maps to help State cooperators determine which high-risk pests to target for survey efforts. APHIS completed 8 maps during 2023 for pests of concern, bringing the total number of maps to 24. Overall, the Pest Detection program enables APHIS and cooperators to gather data about pests and use the resulting data to make decisions aimed at averting economic and environmental damage. 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 CAPS program demonstrate absence of a pest and are used in some cases to address importing countries' phytosanitary requirements and retain access to foreign markets.

In 2023, APHIS and cooperators in 50 States and 4 territories conducted surveys targeting a total of 222 unique pests, including 97 percent of those APHIS' CAPS Committee identified as high risk. APHIS identified 104 high-risk plant pests and diseases; surveys funded by Pest Detection targeted 101 of them. Including surveys funded through Plant Protection Act 7721, APHIS and cooperators targeted all identified high-risk plant pests. APHIS confirmed at least 12 pests new to the United States based on the data collected during the 2023 surveys. APHIS is evaluating and responding to approximately 45 pests detected in 2023 and prior years. Evaluating these detections allows APHIS and State officials to determine whether regulatory or mitigation measures are necessary to manage the potential impacts of the pests or diseases. For example, the program continues to respond to old world bollworm and tomato brown rugose fruit virus. In consultation with stakeholders, APHIS determined ten pests do not require regulatory measures and changed the regulatory pest status from quarantine to non-quarantine; these pests include: *Aproceros leucopoda* (pending), *Epitrix pubescens*, *Eupterym atropunctata*, *Euwallacea fornicatus* (pending), *Hadrosomus teapensis*, *Horidiplosis ficifolii*, *Perkinsiella sacchiricida*, *Phyllachora maydis*, *Pseudocerradoa paullula* and *Sirex noctilio*. In addition to providing data for determining when pest response activities are needed in the United States, APHIS uses the survey data showing that many high-risk pests are not present to support U.S. farmers' access to export markets. In 2023, APHIS used the data in bilateral trade discussions, pest risks assessments supporting U.S. exports, and issuance of phytosanitary certificates.

In 2023, the program exceeded its target of detecting 90 percent of the 104 high-risk pests before they spread to new areas. All pests were localized at the time they were detected.

5. Plant Protection Methods Development

The Plant Protection Methods Development (PPMD) program develops scientifically viable and practical tools for exotic plant pest exclusion, detection, and management. These tools preserve economic opportunities for farmers and industries who engage in interstate commerce and international trade, and safeguard U.S. agricultural and natural resources from invasive plant pests. The program is essential to APHIS' mission by developing and validating tools for detecting exotic pests in survey programs; molecular diagnostic tests and identification tools for pest identification; integrated pest management methods, including biological control, to help eliminate or manage invasive pests; and phytosanitary treatments to support interstate and international trade. A major focus of the program is to develop and implement biological control technologies that allow for the use of natural enemies alone, or in combination with other control tactics, to effectively mitigate the impacts of introduced, invasive insect pests, weeds, and plant pathogens, while minimizing impacts to the environment.

In 2023, the program continued developing and improving technologies, tools, and treatments for APHIS plant pest and disease programs, such as Mexican fruit fly, grasshopper, and spotted lanternfly (SLF). Specifically, the program continued operationalizing the use of golden pest spray oil (a product that is 93 percent food-grade soybean oil registered with the Environment Protection Agency and certified for organic use) as a control method on SLF egg masses to prevent spreading. In 2023, the program analyzed monitoring data of almost 3,000 SLF egg masses with partners in four States—Delaware, New Jersey, Pennsylvania, and Virginia- using the golden pest spray oil treatment on a trial basis. In addition, the program developed and delivered protocols to monitor treatment efficacy of insecticide applications and evaluate efficacy of portable vacuum as a treatment for SLF adult and nymphs. The program also developed and deployed a data collection tool for field use, improving accuracy and replacing paper data sheets. to collect data from the treatment monitoring sites.

The PPMD program maintains its own quarantine and rearing facilities for biological control agents in Arizona, California, Massachusetts, Michigan, Texas, and Guatemala. APHIS partners with USDA’s Agricultural Research Service (ARS), the U.S. Fish and Wildlife Service, State departments of agriculture, universities in 30 States and Territories, and 2 Native American Tribes to evaluate and establish biological control agents for invasive plants, pests, and diseases. The biological control program has been responsive in developing biological control agents to address invasive pests and weeds such as Asian longhorned beetle, emerald ash borer (EAB), roseau cane scale, air potato, and spotted lanternfly. The current 2023 biological control portfolio includes 31 cooperative agreements with States and Tribal Nations that collectively attack 16 exotic weeds and 3 arthropod pests.

In 2023 the PPMD program also supported research on the invasive northern giant hornet (*Vespa mandarinia*). The northern giant hornet is a predator that feeds on other pollinators, including honey bees. It was first detected in Washington state in late 2019. Since then, APHIS has worked closely with the Washington State Department of Agriculture to support eradication of this invasive pest. In 2023, the program funded research with the Washington State Department of Agriculture and university researchers to investigate the population genetics of the genus, phenology modeling, and the northern giant hornet’s foraging behavior in its native range.

The PPMD program also supports research related to invasive honey bee pests. Managed honey bee colonies add at least \$15 billion to the value of U.S. agriculture each year through increased yields and superior quality harvests (O’Brien, D. 2019 ARS Microscopy Research Helps Unravel the Workings of a Major Honey Bee Pest). In 2023, the program continued to fund priority projects with other Federal agencies as well as university and non-profit researchers that support managing, suppressing, and eradicating Varroa mites and other pests and diseases contributing to a decline in honey bee health. These projects included investigating a multidisciplinary approach for tackling emerging disease outbreaks, management techniques to improve overwintering success, and detection and management of the parasitic *Tropilaelaps* mites that feed on worker bee pupae.

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 help U.S. farmers 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. The program currently addresses several pests and diseases including exotic fruit flies, a variety of citrus pests and diseases, glassy-winged sharpshooter (GWSS), spotted lanternfly (SLF), pale cyst nematode (PCN), navel orangeworm (NOW), and *Phytophthora ramorum*, among others. Overall, the program directly protects specialty crop production worth more than \$11.5 billion in 2022 (APHIS internal analysis based on National Agricultural Statistics Service data). The program indirectly protects additional specialty crop production valued at \$7.6 billion in 2022, by preventing the spread of these damaging pests and diseases to new areas (APHIS internal analysis based on National Agricultural Statistics Service data). Without the SCP program, 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 without the SCP program was \$3.6 billion in 2022, according to an internal APHIS report using data from the Foreign Agricultural Service’s Global Agricultural Trade System.

Grapes

The SCP program targets several devastating pests and diseases, including GWSS, EGVM, and SLF, that could affect grape production and impact export markets. In August 2016, APHIS declared the successful eradication of EGVM from California. In 2023, APHIS, in collaboration with the California Department of Food and Agriculture (CDFA), county departments of agriculture and industry partners, continued monitoring for EGVM with more than 22,000 traps placed in 37 participating counties. APHIS and cooperators found no infestations. APHIS is evaluating what level of survey to continue and how to expand surveys to incorporate other grape pests.

APHIS also continued the successful, cooperative GWSS program designed to suppress populations of this pest where it is established. GWSS is a vector for Pierce's disease, which is lethal to grapevines. The program's suppression and regulatory activities work to prevent the spread of the vector and disease across California. In 2023, the program continued to conduct surveys and other regulatory activities including inspections of nursery stock and bulk citrus for the pest in 49 California counties, and continued area-wide suppression activities in affected agricultural production areas of four California counties. With citrus growers' voluntary suppression treatments, the program covered 20,327 acres. Of the more than 30,000 shipments of nursery stock from infested areas, California county inspectors rejected one shipment due to GWSS life stages being present. Together, the EGVM and GWSS programs directly protected 828,000 acres of grape production worth \$5.5 billion in the State of California in 2022 (National Agricultural Statistics Survey Noncitrus Fruit and Nuts 2022 Summary).

In 2023, APHIS and cooperators continued addressing SLF using funding provided through SCP and with approximately \$6 million in funding made available under Plant Protection Act Section 7721. This invasive pest is now found in 16 States, including Connecticut, Delaware, Illinois, Indiana, Maryland, Michigan, Massachusetts, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Tennessee, Virginia, and West Virginia. SLF prefers to feed on the invasive tree of heaven (*Ailanthus altissima*) but also feeds on a wide range of crops and plants, including grapes, apples, hops, walnuts, and hardwood trees. Thus far, vineyards have been the most adversely affected agricultural commodity. The insect sucks sap from stems and leaves, causing damage to plants as they feed. There is a strong correlation between new SLF populations and major transportation pathways, such as railroads and interstate corridors. APHIS conducts targeted treatments and, in some areas, removes SLF's preferred host plant, tree of heaven, from transportation hubs with the aim of reducing the risk of SLF spread to new areas. APHIS and cooperators also continue to conduct treatments in high-risk sites of the infestation and to eradicate isolated infestations. In 2023, APHIS, the National Association of State Departments of Agriculture, and the National Plant Board released the Spotted Lanternfly 5-Year Strategic Plan. This plan harmonizes the national response and implementation approach across affected States, supports research on new control/management tools, and outlines consistent outreach messaging nationwide. In 2023, the program added a new control option—golden spray oil—to treat SLF egg masses that allows year-round efforts to combat the pest, and implemented the use of egg mass traps. In 2023, APHIS and cooperators treated 4,637 properties covering 6,455 acres in affected areas included in the program's environmental assessment (EA). APHIS and cooperators surveyed more than 30,000 acres and deployed more than 7,000 traps nationwide. The program completed National Environmental Policy Act documentation to conduct treatments in four affected States in 2023 that were not included in the previous environmental assessments—Indiana, Massachusetts, Michigan, and Rhode Island. APHIS prepared a programmatic, nationwide EA to address all other known and potential SLF treatment areas in the United States, which was published for public comment in November 2023. The most recently impacted States, Illinois and Tennessee, will be covered by the programmatic EA. In 2023, APHIS continued developing new methods to control SLF, including use of *Beauveria bassiana*, a naturally occurring fungus that acts as an insecticide on many insects, additional types of oil treatments that could target nymphs, and additional treatments for egg masses. APHIS and cooperators also continued work on two potential biological control organisms, one that targets the tree of heaven and one that targets SLF nymphs. APHIS will continue to evaluate them and develop methods to rear them on a larger scale in the laboratory should they prove to be effective and specific to their targets.

Citrus

Citrus fruits are high-value specialty crop and a nutritious food for consumers across the world. APHIS supports the citrus industry's continued ability to produce, harvest, process, and ship citrus fruits and nursery stock despite the presence of diseases such as citrus canker, citrus greening or Huanglongbing (HLB), sweet orange scab, and citrus black spot, which decrease fruit quality, increase production costs for producers, and threaten export markets in areas when found. HLB is the most serious disease of citrus currently impacting Florida and Texas, and threatening

the citrus crop in Arizona, California, Louisiana, and most recently, Mississippi, where it was recently detected in a residential area. The insect vector, the Asian citrus psyllid (ACP), spreads the disease. Through the Citrus Health Response Program, APHIS and State partners also conduct surveys for other diseases not known to occur in the United States, including citrus leprosis and citrus variegated chlorosis.

APHIS and cooperators in citrus-producing States perform multi-pest surveys providing timely information about the presence of pests and diseases to growers and State government partners. This information allows growers to take necessary actions to manage their groves and allows APHIS and States to update quarantine boundaries and regulations to prevent the spread of serious citrus pests and diseases through the movement of regulated materials. Based on the results of surveys, the Agency adjusted quarantine boundaries during 2023 for HLB in California. In areas affected by citrus pests and diseases, APHIS' flexible regulatory protocols have minimized the impact of the quarantines on growers, who can move citrus out of quarantined areas to packinghouses if they follow mitigation procedures to prevent the disease or its insect vector from spreading. The Agency works with citrus nurseries across the United States to ensure that nursery stock produced in areas quarantined for citrus diseases is free from the pests, ensuring that clean plants are moving between States and available for citrus producers and residential use. In 2023, approximately 560 businesses had compliance agreements with APHIS and moved regulated host materials such as citrus fruit and nursery stock under more than 40,000 limited permits issued by the Agency. State partners managed an additional 14,502 compliance agreements to facilitate same movement of regulated host materials.

APHIS and cooperators continue extensive surveys that establish citrus black spot-free production units and low prevalence areas for citrus canker in Florida for export packing to the European Union. APHIS also supports area-wide management efforts in Texas and California for citrus pests and diseases. In 2023, APHIS and cooperators continued to conduct risk-based surveys for HLB in residential and commercial citrus areas in California to ensure they detect the disease quickly if it is present. APHIS assists CDFA in aggressively responding to positive detections of HLB (thus far in residential areas only) and implementing an area-wide management approach for ACP population control. APHIS continued biological control efforts targeting ACP. This program, which employs a predatory wasp against ACP, augments other management methods, especially in residential areas in Arizona, California, Louisiana, and Texas, where use of chemical pesticides is undesirable. APHIS and CDFA continued surveys for citrus yellow vein clearing virus in Tulare County, California, after the disease was first detected there in 2022. Efforts are ongoing to determine the extent of disease spread and develop an appropriate regulatory response. For the 2022-2023 season, there were 588,200 bearing acres with production worth approximately \$2.5 billion (National Agricultural Statistics Survey Citrus Fruits 2023 Summary). Without APHIS' activities, citrus exports could be at risk each year. In calendar year 2022, the value of U.S. citrus exports totaled approximately \$771 million (Foreign Agricultural Service Global Agricultural Trade System).

HLB Multi-Agency Coordination (MAC) Group

To help address the citrus industry's immediate and long-term needs in dealing with HLB, APHIS established the HLB MAC response framework in December 2013. In addition to APHIS, the HLB MAC includes USDA's Agricultural Research Service (ARS), National Institute of Food and Agriculture, and Office of Pest Management Policy; the Environmental Protection Agency; State departments of agriculture in Arizona, California, Florida, and Texas; citrus research organizations in California, Florida, and Texas; and citrus industry organizations in California, Florida, and Texas. Between 2014 and 2019, the HLB MAC funded a total of 105 projects carried out by State cooperators, universities, private companies, and Federal agencies. The projects focused on strategies for vector control, therapies for infected trees, sustainability of new plantings, early detection technologies, best management practices for citrus groves, and support for the development of HLB-resistant citrus varieties. In 2019, the HLB MAC shifted focus towards determining the best management practices for producing citrus under the threat and pressure of HLB. APHIS first supported the Florida Citrus Research and Field Trials (CRaFT) project to conduct field evaluations of strategies that showed previous scientific evidence of success and then initiated similar projects in California and Texas. These long-term projects evaluate interactions between methods, treatments, environments, rootstock/scion combinations, and growing practices in the different conditions in each State. In 2023, APHIS provided HLB MAC funds to all three States for the ongoing projects. Additionally, APHIS supported a project to propagate and perform greenhouse and field trials for new citrus varieties developed using CRISPR precision breeding to create resistance to HLB.

Tree Fruit and Nursery Stock

APHIS protects a wide variety of specialty crops (particularly tree fruit and citrus) through exotic fruit fly exclusion and detection activities. One of the Agency’s key strategies is maintaining internationally recognized Medfly Free areas in Petén, Guatemala, and in Belize (approximately 149,000 square kilometers combined) and managing pest populations in southern Mexico and Guatemala to prevent northward movement of Mediterranean fruit fly (Medfly). Medfly is one of the most destructive agricultural pests in the world, attacking more than 300 cultivated and wild fruits and vegetables. In 2023, APHIS, through its cooperator Moscamed, produced and released approximately one billion sterile Medfly per week in Mexico and Guatemala to control northward movement of the pest. Moscamed also produces sterile Medflies for preventative release programs in high-risk areas of California and Florida.

In 2023, the international regional cooperative program detected growing numbers of Medfly incursions in Moscamed-designated free areas of Mexico and Guatemala, likely related to climate conditions favorable to Medfly. APHIS assisted cooperators in Mexico by funding the additional production of 200 million sterile Medfly for release in Chiapas. The program also applied aerial bait spray treatments in program areas of Guatemala. APHIS and cooperators will continue addressing the high number of detections predicted for 2024 in an effort to prevent the northward spread of the pest.

Since 2015, when the first Medfly outbreak occurred in the Caribbean, APHIS has worked with partner countries in the region to improve surveillance for Medfly and other exotic fruit flies. In 2022, eight Caribbean countries participated in this effort with active trapping and surveillance programs. APHIS is working with partners in the Caribbean to develop 2024 plans for fruit fly trapping and will continue to support surveillance in the Caribbean through technical assistance.

Domestically, APHIS and State cooperators maintain the cooperative Preventative Release Program, which releases sterile fruit flies in high-risk areas to prevent any introduced Medflies or Mexican fruit flies (Mexflies) from reproducing and establishing a population in the United States. In the Los Angeles area in California, APHIS and cooperators release 120 million sterile Medfly per week, and 80 million per week in four port areas in Florida. APHIS and cooperators also maintain a detection network of more than 160,000 traps in California, Florida, New York, Puerto Rico, Texas, and other States vulnerable to exotic fruit fly incursions. When outbreaks occur, APHIS and cooperators implement immediate emergency response activities to eradicate them. In 2023, APHIS and CDFA detected the Tau fly for the first time in the United States. This fruit fly is native to Asia and, like many fruit flies, has a broad host list including citrus, peppers, tomatoes, cucumbers, melons, and avocados. The program also detected and is responding to four outbreaks of the Oriental fruit fly. For both Oriental fruit fly and the Tau fly, APHIS uses traps with attractants to eliminate the outbreaks. In 2023, APHIS completed the eradication of two outbreaks in California that were initially detected in 2022: a Mexfly outbreak in San Diego County and an Oriental fruit fly outbreak in Orange County. When outbreaks occur, APHIS and cooperators implement immediate emergency response activities to eradicate them.

During 2023, there were no new detections of Mexfly in the Lower Rio Grande Valley, home to the Texas citrus industry. In November 2022, the program completed the response to a large Mexfly outbreak and released the last 42.91 square miles from quarantine. At its largest point, the multi-outbreak incident had covered 1,172 square miles. In 2023, APHIS continued releasing an improved strain of sterile Mexflies that allows males and females to be separated. Releasing only male sterile flies improves efficiency in controlling wild Mexfly populations.

APHIS also continued to address the European cherry fruit fly (ECFF) in northwestern New York in 2023. APHIS and cooperators in New York enforce quarantine regulations over the 3,223 square-mile affected area to reduce the risk that ECFF will spread to other cherry-producing areas. APHIS conducted surveillance along the border of the quarantine and detected ECFF in two areas outside the current quarantined zone. APHIS is continuing to delimit the affected areas and will expand the quarantine in 2024 to include the newly affected areas. Cherry producers can mitigate damage the pest may cause to crops through current management practices. APHIS’ regulatory measures allow the movement of cherries out of the quarantine areas using “float tests” in the orchard and at the processing plants—when the cherries are submerged in water, fruit fly life stages float to the surface—to determine whether any ECFF are present in shipments. These float tests reduce trapping requirements for growers in their fields while meeting the goal of preventing ECFF from spreading through cherry shipments.

APHIS and cooperators also work to address NOW. In 2023, APHIS and cooperators in California and Arizona continued implementation of the NOW areawide program, targeting the moth, which is a serious pest of tree nut

crops including almonds, pistachios, and walnuts. Adult moths lay eggs through gaps in the nut hulls or shells, where newly hatched larvae feed and contaminate the nuts with insect waste and secondary fungal spores that may produce poisonous aflatoxins. APHIS uses its Phoenix Rearing Facility in Arizona to produce sterile NOW moths and ships them to California where they are released by airplane over participating pistachio and almond orchards. In 2023, APHIS and cooperators at CDFA and University of California Cooperative Extension (UC Riverside) established new participating orchards that maintain 2,560 acres for NOW release and 2,560 for non-release for comparison. APHIS produced and released approximately 750,000 sterile NOW moths per day for early-season releases when the first release zones were available, and increased production to approximately 1.5 million per day when the remaining orchards were available. APHIS continued to provide a portion of the sterile NOW moths for research initiatives conducted by ARS and the University of California-Riverside. APHIS and cooperators continue to evaluate the impact of the release of sterile moths and the other integrated pest management measures on NOW in tree nut crops.

APHIS protects natural resources and nursery stock production and trade by limiting the spread of *P. ramorum* from quarantine areas and affected nurseries through regulatory strategies and adoption of mitigations and changes to cultural practices. *P. ramorum*, which causes sudden oak death, can be moved through host nursery stock and can affect a variety of forest trees. The disease is present in coastal northern California (affecting 16 counties in the State) and a small area in Curry County, Oregon. In 2023, Oregon State officials continued surveys related to a positive detection outside the quarantined area in 2021 and in 2022. APHIS will update quarantine regulations to include the new area when the delimiting surveys are completed. Because of the presence of *P. ramorum* in the surrounding environment, nurseries within the quarantine area that ship interstate must meet annual certification survey and sampling requirements to prevent the movement of potentially infested material. The program also regulates nurseries outside the quarantine area that have been confirmed positive for *P. ramorum* in plants, water, or other regulated articles. The nurseries must remain free of *P. ramorum* for three consecutive years to be deregulated. All positive interstate shipping nurseries must participate in a compliance program using protocols to eliminate the pathogen and implement required mitigations focused on critical control points to reduce the risk of reintroduction. During 2023, 16 nurseries participated in the program - three nurseries were added to the program; and APHIS released four nurseries which completed program requirements.

APHIS completed a revised pest risk assessment in 2023 for *P. ramorum*, which states that since *P. ramorum* is only established and causing disease in the coastal areas of California and Oregon despite repeated nursery and stream detections throughout the country, unless conditions change, *P. ramorum* is unlikely to pose a high risk to the United States outside of forests in California and Oregon. The analysis updates the previous pest risk assessment for the United States conducted in 2008.

Through all these activities, APHIS directly protects nursery stock production worth approximately \$1.3 billion in 2019 (the most recent year that data is available), and tree fruit production worth approximately \$1.7 billion in 2022 (APHIS internal analysis based on National Agricultural Statistics Service data). By preventing pests and diseases like exotic fruit flies and *P. ramorum* from spreading to new areas, the program indirectly protects approximately \$6.8 billion in fruit and nursery stock production (APHIS internal analysis based on National Agricultural Statistics Survey data).

Potatoes

APHIS addresses two major potato pests, pale cyst nematode (PCN) in Idaho and the golden nematode (GN) in New York. APHIS and cooperators have confined each to a relatively small area and continue survey and regulatory efforts to protect potatoes that are grown in all 50 U.S. States and are exported from 18 States.

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. In 2023, APHIS processed 7,894 samples for the PCN eradication effort in Idaho and detection surveys in other States. In 2023 the program conducted 1,579 regulatory treatments of farm equipment to prevent the spread of PCN out of regulated areas. There are currently 32 PCN-infested fields, and the current regulated area is 6,535 acres, of which 3,542 acres are infested fields, and 2,993 acres are associated fields (those connected through use of shared farm equipment or other means of pest spread). The infested fields are in an 8.5-mile radius that spans a portion of northern Bingham County and southern Bonneville County. In 2023, the program conducted eradication treatments on 7 infested fields, totaling 754 acres. In the treated fields that no longer show PCN viability, according to a greenhouse bioassay test, producers can plant potatoes with continued monitoring by APHIS and cooperators to ensure PCN is not present. During the greenhouse

bioassay (three rounds of greenhouse bioassay that is the equivalent of three crop cycles), the program tests the viability of any PCN nematodes found in the soil. If the nematodes are found to be non-viable (they fail to reproduce under favorable conditions in the presence of a host), the fields from which they came are eligible to immediately return to potato production at the landowners' discretion. The PCN program requires infested fields that return to potato production to undergo full-field surveys following each of three subsequent potato crops to check for viable PCN populations. These fields remain regulated but benefit from reduced sanitation requirements. In 2023, a farmer planted potatoes in monitoring grids in one eligible field for bioassay tests. The fields will be sampled following harvest and analyzed for the presence of viable nematodes. The program is working with ARS, the University of Idaho, and other cooperators to develop PCN-resistant potato varieties. APHIS has funded several projects on PCN-resistant potato varieties through Plant Protection Act 7721 for this long-term effort.

In 2023, APHIS and New York cooperators continued an effective survey and regulatory program targeting GN with a focus on deregulation of all eligible land. Adopting strategies used in the more recently established PCN program, the GN program is focusing on fields that are either infested or associated with infested fields rather than political boundaries such as townships. APHIS, working closely with the New York State Department of Agriculture and Markets (NY AGM), has removed more than 1.2 million acres from the GN regulated area in New York since 2010, allowing several farmers to grow their crops without restrictions. APHIS continues to manage an active control and mitigation program to prevent GN from spreading from the remaining 90,307 regulated acres in portions of 8 New York counties, including 5,945 acres that are infested with GN. The program enforces regulations designed to prevent the spread of GN and requires sanitation treatments of on farm equipment and other items moving out of the quarantined area. In 2023, the program processed 2,133 soil samples for the GN deregulation effort in New York. The program conducted 326 regulatory treatments of farm and earthmoving equipment to prevent the spread of GN out of regulated areas and certified 3 shipments of potatoes to Canada, totaling 160,000 pounds. APHIS has cooperated with ARS, NY AGM, and Cornell University to develop GN-resistant potato varieties for several decades. The program is now headquartered at a newly renovated laboratory on the Cornell University campus to continue this and other work on methods of eradicating GN. The program has developed a total of 45 GN-resistant varieties. Because the pest can overcome resistance, continued development of new GN-resistant varieties is necessary.

Together, these programs protected 32.9 billion pounds harvested from 895,600 acres of U.S. potatoes, valued at approximately \$5.1 billion at 2022 (National Agricultural Statistics Service). In calendar year 2022, the United States exported more than 550,000 metric tons (\$303.6 million) of fresh and seed potatoes (Foreign Agricultural Service Global Agricultural Trade System).

Canine Detection and Surveillance

APHIS continued developing canines for pest surveillance efforts in 2023, focusing on spotted lanternfly (SLF), Japanese beetle, and Asian longhorned beetle (ALB). APHIS provided funding to Auburn University College of Veterinary Medicine's Canine Production Sciences program for the projects. Through the agreement, Auburn will continue developing additional canine detectors for SLF early detection efforts. Auburn will also continue testing the use of canines to detect Japanese beetle larvae as part of an effort to prevent the pest from becoming established in western states and to detect frass left by ALB to enhance ALB detection efforts.

The program supported an APHIS Science and Technology project to develop canine training tools based on the odor profile of the target pest. Without access to the live pest odors, training aids are needed to periodically reinforce and confirm the dogs' detection ability. Training aids may include synthetic compounds or more stable biological samples collected from the pest, such as mucus from snails. Giant African snails were selected as a model system to provide a methodology to obtain the odor profiles of an invasive pest that has a limited distribution. The program funded existing SLF canines in North Carolina, New Jersey, and Pennsylvania and Asian citrus psyllid-focused canine teams in Arizona and California. The program also provided a portion of the funding for ongoing support of the mollusk and parcel inspection teams in Florida and the parcel inspection teams in California.

Apple Snail

The apple snail is an invasive snail from South America that can negatively impact rice and crawfish production and has been found in seven southeastern states of the United States and Hawaii. APHIS, working with ARS, has developed a multi-year project aimed at identifying methods to control the snail, determining the pest's economic impact, evaluating the risk of snail parasites, and potential uses of dead snails. Preliminary data from the 2023

project has shown that a common aquatic pesticide (copper sulfate) can control apple snails and not harm crawfish under laboratory conditions. However, the quantity needed to control apple snails is very high, so ARS will evaluate potential impacts of the pesticide on the industry-relevant rice crops and non-target organisms. Additionally, APHIS is working with the U.S. Geological Service (USGS) to evaluate less toxic and cost-effective methods to control egg masses using cultural control methods. APHIS and ARS conducted a national stakeholder workshop to discuss past successes and failures in apple snail management to help direct funding to critical needs of the industry. APHIS provided funding to ARS and USGS in 2023. ARS will conduct the work internally and with cooperators from Louisiana State University and Mississippi State University.

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), spongy moths, and shot hole borers (SHB). 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 or, 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 that APHIS protects is over \$200 billion (U.S. Forest Service, USFS). In addition, trees in residential areas lower cooling bills, filter pollutants from the air, decrease runoff, and improve residents' quality of life (U.S. Environmental Protection Agency).

Asian longhorned beetle

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

ALB was first detected in Brooklyn, New York, in August 1996, and was later found in other areas of, Illinois, Massachusetts, New Jersey, New York, Ohio and in 2020, Charleston, South Carolina. The program has successfully eradicated ALB from Chicago, Illinois; Boston, Massachusetts; Batavia, Stonelick, Jersey City, Middlesex County, and Union County, New Jersey; Islip, Staten Island, Brooklyn, Queens, and Manhattan, New York, and Monroe Townships, Ohio. The program continues conduct activities in regulated areas of Massachusetts, Ohio, South Carolina, and New York.

APHIS' eradication strategy for ALB includes surveys, regulatory inspections and quarantine restrictions, removal of infested and high-risk trees, and chemical treatment applications. APHIS conducts several cycles of surveys to determine the scope of infestation, establish a quarantine area, identify trees to remove or treat, determine if the pest has spread outside of the established quarantine area, and determine when to release an area from quarantine. A survey cycle, which is the time it takes to complete a survey of a given area, can take several years depending on the size of the area, the density and type of trees in the area, and type of landscape or land use. APHIS can declare eradication in a given area after a minimum of four years of not finding ALB between the last detection of the pest and the completed final survey cycle. APHIS provides ongoing support to evaluate new methods and protocols to combat ALB and tailors project responses to site-specific conditions, resulting in a more efficient program. Currently, each regulated area is at a different stage of eradication and faces unique, local conditions. In 2023, the program surveyed a total of more than 763,000 trees across the four regulated areas.

In 2023, the program surveyed 43,480 trees and found 11 new infested trees in relation to the Long Island, New York outbreak. Two of these infested trees were removed in 2023, the additional infested trees in the area are planned to be removed in 2024. To date, the program has surveyed a cumulative 1.8 million trees in Long Island over the program's existence and removed more than 8,450 trees.

To address ALB in Worcester County, Massachusetts, the program continued ongoing survey efforts—surveying nearly 360,000 trees in densely wooded, hard-to-access areas in 2023. The program found no new infested trees in Massachusetts, indicating progress. Over the program's lifetime, the program has surveyed more than 10.6 million trees and removed 36,263 high-risk host and infested trees.

In Tate Township, Ohio, the program surveyed over 225,000 trees, found 163 new infested trees, and removed more than 2,600 infested and high-risk host trees in 2023. Surveying and infested tree removal efforts continued in the remaining 49 square miles of the Ohio quarantine area. The program has surveyed a cumulative 4.5 million trees in Ohio and removed approximately 117,000 since the initial detection in 2011.

In 2023, efforts in South Carolina (the most recently detected outbreak) focused on ALB surveys in the southern part of the quarantine area and removal of infested and high-risk host trees in the core area of the infestation. This regulated area includes forested and wetland areas, making access for surveys and tree removals challenging. Experienced staff from other ALB regulated areas deployed to the South Carolina outbreak to provide support. The program surveyed nearly 140,000 trees and removed over 1,700 in 2023. In South Carolina, the program has surveyed approximately 282,226 trees since 2020 and removed approximately 8,200 infested and high-risk host trees.

Emerald ash borer

Another forest pest of concern is EAB. In 2002, this pest was first detected in Michigan and has since been detected in 36 additional States and the District of Columbia.

EAB has spread beyond what a regulatory program can control. In 2019, APHIS initiated proposed rulemaking to deregulate EAB and redirect resources for controlling the spread of this devastating pest using biological control agents and exploring ways to preserve ash resources. On September 19, 2018, APHIS published a proposed rule in the Federal Register to remove the EAB Federal domestic quarantine regulations. In 2020, APHIS reviewed and responded to all comments received during the open public comment period and in 2021, APHIS published the final rule to remove the Federal domestic EAB quarantine. In 2023, APHIS continued to operate as a management and biological control program. As a result, APHIS provided parasitoids to 155 release sites (3 in Canada and 152 in the United States). One release site was in a new State (Oregon), 59 releases were in new counties, and total releases covered a span of 122 counties in 25 states.

The program's biological control initiative is designed to effectively manage EAB populations. It provides a promising strategy, using four species of parasitic stingless wasps for long-term EAB management. To date, the EAB program has cumulatively released a total of more than 8.5 million parasitoids impacted areas.

APHIS and cooperators continue to assess the impacts of the parasitic wasps on EAB populations and tree health at release sites and nearby areas. Field evaluations indicate the EAB parasitoid wasps and other EAB natural enemies are protecting sapling ash from EAB.

Spongy Moths

Spongy moth is a destructive pest of North America's most beautiful and popular deciduous trees, including maples, oaks, and elms. This pest is established in all or parts of 20 northeastern, mid-Atlantic, and Midwestern States, as well as the District of Columbia. APHIS and State cooperators conduct regulatory activities in the quarantine area to prevent the human-assisted spread of the pest and establishment of spongy moth populations in non-quarantine areas. These efforts include inspection, treatment, and certification of regulated articles for movement from quarantine to non-quarantine (non-infested) areas. The program issues compliance agreements and conducts public outreach to ensure that businesses and residents in infested areas comply with regulations to prevent long-distance spread of the pest. Spongy moth also spreads naturally into areas bordering the quarantined zone. APHIS and State partners monitor the transition zone along the 1,200-mile-long border of the quarantine area to ensure that newly infested areas are inspected through trapping and added to the quarantined zone and regulated effectively. Working with the U.S. Forest Service and the Slow-the-Spread Foundation, APHIS and cooperators have greatly reduced the rate of spongy moths spread and eradicated isolated populations, preventing this pest from becoming a larger issue. In 2023, APHIS and State cooperators continued to conduct spongy moth surveys to detect, delimit, and eradicate any isolated populations.

Flighted spongy moth complex (FSMC) 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. The FSMC poses a particular risk to western areas because of its ability to hitchhike on shipping vessels from Asia. APHIS supports the exclusion of FSMC through offshore vessel inspection, certification, and cleaning requirements. APHIS, the Department of Homeland Security's

Customs and Border Protection, and the Canada Food Inspection Agency conduct continuous joint outreach to the maritime shipping industry.

APHIS and State cooperators continued a precision delimitation response to determine if there was a population present in Washington following a single FSMC detection in 2021. This precision delimitation process includes at least three years of surveying to determine the scope of infestation, establishing a quarantine area, determining if the pest has spread outside of the established quarantine area, and determining when to release an area from quarantine. Results of the second-year delimitations in 2023 have not been finalized, but no additional moths have been detected. The program and its partners also concluded a third year of precision delimiting surveys in California and Oregon for FSMC detections in 2020. Results of the third-year delimitations have not been finalized, but no additional moths have been detected in 2023.

Shot Hole Borers

Various non-native shot hole borers have been detected in several States and hosts, including numerous woody trees in forests and urban landscapes, cultivated tea, and avocado. Shot hole borers are also called ambrosia beetles because they have a symbiotic relationship with ambrosia fungi, which they vector from tree to tree. The fungi disrupt the vascular system of impacted trees. In recent years the polyphagous and Kuroshio shot hole borers and diseases they cause have been devastating riparian habitats in southern California and urban areas in other parts of California. At California's request, APHIS and USFS helped establish a working group, led by USFS, with the goal of strategically addressing the shot hole borers in California.

In 2023, APHIS continued to provide support for addressing the management of shot hole borers in California. This support included assisting with the foreign exploration of biological control agents and continuing efforts to determine host specificity of parasitoids on shot hole borer populations. APHIS plans to continue these projects in 2024.

Selected Examples of Recent Progress – Wildlife Services:

1. Wildlife Damage Management

APHIS provides Federal leadership and expertise to resolve wildlife conflicts to allow people and wildlife to coexist. Specifically, APHIS works to protect agriculture, human health and safety, property, and natural resources from disease and damage caused by wildlife. Cooperator participation and support is critical to the success of the Wildlife Damage Management Program. APHIS' wildlife biologists coordinate activities in every State and in three Territories with Federal, State and Territorial agencies, Tribes, local governments, private homeowners, farmers, ranchers, and other property owners.

Agriculture

Feral swine are a harmful and destructive invasive species which cause significant damage to property, agricultural animal health and crops, natural resources, public health, and native ecosystems. The Agency's damage management strategy for feral swine provides resources and expertise at a national level, while allowing flexibility to manage operational activities from a local or State perspective. Collaboration with other Federal, State, Tribal, and local entities, universities, and organizations, along with landowners and others experiencing damage, is essential for controlling the spread of feral swine and suppressing or, where possible, eliminating populations. In 2023, APHIS conducted cooperative, cost-share operational feral swine activities on approximately 187 million acres in 35 States and 3 Territories, including suppressing a re-emerging population of feral swine in New York state. Since the program began in 2014, APHIS and partners have successfully eliminated feral swine from seven States (Colorado, Idaho, Maine, Maryland, Minnesota, New Jersey, and New York), and recognizes four States (Iowa, Vermont, Washington, and Wisconsin) in detection status. APHIS considers feral swine eliminated from a State in detection status after the State can complete two years of monitoring with no additional sightings.

APHIS also expedited its feral swine eradication efforts in Puerto Rico and the U.S. Virgin Islands in response to the increased threat of African swine fever (ASF). The Agency established a goal of eliminating feral swine from islands with low numbers and significantly reducing populations in areas with high numbers within 18 months. In 2023, APHIS conducted enhanced operational population control and ASF surveillance activities in the U.S. Caribbean territories, and also expanded ASF surveillance to include counties determined to be at very high risk of ASF entry from global pathways in ten states (Florida, Georgia, Louisiana, Texas, Alabama, California, South

Carolina, Mississippi, Oklahoma, and Tennessee). APHIS also expanded ASF surveillance in feral swine to include the whole of the U.S./Mexico border (Arizona, California, New Mexico, and Texas) as well as the whole of the Florida Gulf Coast. In addition to feral swine removal and sampling activities, APHIS conducted outreach and stakeholder engagement to ensure continuing partnership and cooperation with the local communities. In collaboration with our partners, APHIS collected more than 6,000 samples from individual feral swine to conduct surveillance on diseases of national concern with implications for domestic livestock and public health in 2023.

Other activities include conducting economic analyses to better assess feral swine damage to agriculture, livestock, and limited resource farmers; collecting and analyzing environmental DNA to detect feral swine presence through genetic markers in water; and maintaining a National Feral Swine Genetic Archive to assess the human movement of feral swine from source populations. Finally, in 2023, the latest field trial evaluating sodium nitrite as a compound for toxicant development was once again challenged with non-target impacts. The Agency will continue refinements to the sodium nitrite bait and baiting strategies, as it is paramount to develop a bait that allows for maximum efficacy on feral swine with minimal risks to nontarget species. APHIS will continue efforts to develop a feral swine toxicant for consideration for registration with the Environmental Protection Agency (EPA) as the agency moves forward into 2024.

While predators serve a vital role in ecosystems, they pose challenges for agriculture producers in the United States. Livestock losses attributed to predators cost producers approximately \$232 million annually, according to the most recent surveys by National Agriculture Statistics Service. APHIS prevents and reduces livestock predation through technical assistance (education and outreach) to producers, and operational management programs. In 2023, APHIS provided assistance to livestock producers on more than 119,000 occasions. APHIS and cooperators often share the cost of APHIS-conducted livestock protection activities. In 2023, APHIS conducted 54 predator management workshops attended by more than 3,600 individuals from 14 States.

In collaboration with State wildlife agencies, the U.S. Fish and Wildlife Service (FWS), and Tribes, APHIS conducts wolf damage management programs, and provides additional services to capture and mark wolves for research and population monitoring purposes. APHIS provides technical assistance to producers on preventative measures to supplement direct control activities, which producers then implement themselves. The Agency continues to develop and refine nonlethal methods to decrease wolf conflicts. Upon request, and with appropriate authorizations, APHIS may remove depredating wolves to resolve conflicts. In 2023, livestock producers reported 457 animals killed by wolves. As a result, APHIS responded by providing direct control for wolf conflict to at least 185 stakeholders.

Nonlethal wildlife damage management often involves modifying human activities and practices, manipulating habitats, and other actions to change the behavior of wildlife or reduce its presence and impact. APHIS routinely recommends nonlethal methods via technical assistance or applies them directly to reduce a variety of wildlife conflicts across the country. In 2023, APHIS received funding specifically for the promotion of nonlethal methods to reduce large carnivore-livestock conflict and beaver damage. Nonlethal livestock protection is primarily delivered in the form of range riding, fladry, fencing, livestock guardian dogs, and husbandry practices. Nonlethal beaver damage management routinely involves installing water manipulation devices or relocation in a few specific contexts. The Agency continued efforts started in 2020 to increase and expand use of nonlethal methods in 12 States to protect livestock from large carnivore predators and reduce beaver damage to a variety of resources.

Black vulture populations have increased in both abundance and range during the past 30 years. The Migratory Bird Treaty Act, enforced by FWS, protects black vultures, which prey on livestock. Under the Migratory Treaty Bird Act, the public cannot kill, destroy, or remove migratory birds, their nests, or their eggs without a Migratory Bird Depredation Permit from FWS. APHIS works collaboratively with FWS recommending short and long-term options to provide producers with relief from damage. If removing vultures is necessary, APHIS assists producers in obtaining a depredation permit from FWS. With cooperator funding, APHIS conducted direct control in 26 States in 2023, removing 13,675 black vultures and dispersing 57,087 black vultures to protect agriculture, human health and safety, and property (including cattle and sheep, as well as buildings, vehicles, and utilities, among others), in addition to providing technical assistance to guide private management efforts.

Fish-eating birds, especially double-crested cormorants, can have major impacts on the U.S. aquaculture industry. Annual aquaculture production in the United States is valued at \$1.5 billion in 2018 (USDA, National Agricultural Statistics Service), and research from the National Institute of Food and Agriculture estimates that the catfish aquaculture industry incurs an average loss of \$64.7 million in costs associated with bird damage and damage

prevention (losses ranged from \$33.5 to \$92.6 million). APHIS provides operational and technical assistance to aquaculture producers, particularly on roost management of double-crested cormorant, harassment of fish-eating birds on catfish facilities, and helping farmers acquire depredation permits under the Migratory Bird Treaty Act. Work is concentrated at lower Mississippi valley and southeastern aquaculture facilities in the fall and winter. In 2023, APHIS removed 2,521 and dispersed 277,335 double-crested cormorants to protect aquaculture.

The National Wildlife Disease Program promotes safe agricultural trade by protecting the health of humans, animals, plants, and ecosystems and reducing levels of incurred losses to agricultural and natural resources. NWDP participates in wildlife disease monitoring and surveillance in all regions of the United States. Large-scale projects include wildlife surveillance for avia influenza, SARS-CoV-2, and plague. Activities on emerging pathogens are routinely implemented as well, with recent projects on bovine brucellosis in wildlife, hantavirus spillover to humans, and coordination of rabbit hemorrhagic disease virus 2 reporting.

Human Health and Safety

Rabies is one of the oldest known viral diseases, yet it remains a significant wildlife management and public health challenge. APHIS is the lead Federal agency to prevent the further spread of wildlife rabies, with the goal of eliminating rabies in carnivores in the United States using oral rabies vaccination (ORV). In 2023, APHIS, and cooperators, distributed more than 7.8 million ORV baits to combat raccoon rabies in 13 eastern States and more than 900,000 baits in Texas to prevent the reemergence of rabies in coyotes and gray foxes along the border with Mexico. This is a continuation of the strategic distribution of more than 234 million baits since the program began in 1995. Since 2005, APHIS has conducted more than 125,000 tests using a rapid rabies diagnostic field procedure, documenting more than 2,500 rabies cases that, in turn, facilitated science-based wildlife rabies management responses. In 2023, APHIS collected more than 2,600 raccoon blood samples in 11 States to estimate rabies antibody levels in ORV zones. During 2023, APHIS published the third iteration of the United States National Plan for Wildlife Rabies Management, which serves as a 5-year framework for collaborative management of wildlife rabies in the U.S. to protect human, domestic animal and wildlife health. APHIS also coordinates with international partners through the North American Rabies Management Plan – which includes the United States, Canada, Mexico, and the Navajo Nation – on information transfer, prevention and control, surveillance and monitoring, and research. APHIS continued research in 2023 focused on six main objectives: evaluation of biomarkers for determining vaccine bait uptake by raccoons; evaluation and harmonization of rabies laboratory diagnostic platforms; improvements of vaccines, baits, and attractants to enhance ORV; refinement of baiting strategies in suburban and urban habitats; development of an ORV program in Puerto Rico; and host ecology, genetics, and modeling to enhance surveillance and ORV.

Increased air traffic, faster and quieter aircraft, increased populations of some Federally protected species of birds, and other wildlife all impact the safety of aircraft, particularly in rural communities. Since 1988, bird and other wildlife strikes have destroyed more than 307 civilian and military aircraft and killed 465 people globally. With funding provided by airports, and other Federal, State, and local cooperators, APHIS works to reduce wildlife strike hazards to protect people and aircraft. APHIS estimates the annual value of damage prevented from wildlife strikes exceeds \$100 million. In 2023, APHIS mitigated wildlife hazards by assisting nearly 800 civil and military airports worldwide which included 130 Department of Defense airports in domestic and international settings.

Property

Beaver damage in the southeastern United States has exceeded \$3 billion during the last 40 years. To address and prevent costly beaver damage, APHIS provides assistance by removing beaver dams that clog waterways and flood roads and timber sources or installing devices which maintain desirable water levels. With cooperator funding, APHIS conducted beaver damage management activities in 50 States, Washington D.C., Guam, Puerto Rico, and the U.S. Virgin Islands in 2023.

Natural Resources

Non-native, invasive animals can devastate ecosystems. APHIS focuses on eliminating damage from brown tree snakes (BTS), feral swine, nutria, and other invasive species. In Guam, BTS have eliminated most species of native birds, lizards, and bats, and continue to cause power outages leading to ratepayer losses in excess of \$4.5 million annually and public safety problems. In 2023, with funding from other Federal departments and the Guam Department of Agriculture, APHIS continued the multi-agency partnership to prevent BTS movement from Guam to

other Pacific Islands, Hawaii, and the continental United States. This resulted in BTS control devices at all civilian and military ports of exit and a 100 percent inspection rate goal for all departing cargo, vehicles, and aircraft. It is through this partnership that the Agency inspected approximately 186,357 items and removed nearly 8,000 BTS in 2023 from Guam via programs at Department of Defense (DoD) and civilian ports, DoD on-base housing and contractor facilities, and the Guam power substations and transmission lines.

Nutria damage wetlands, agricultural crops, and structural foundations such as dikes and roads. This South American rodent has destroyed tens of thousands of acres of marshlands critical to the health of the Chesapeake Bay. Between 2002 and 2015, APHIS, in cooperation with the U.S. Fish and Wildlife Service and other Federal and State agencies and private landowners, removed nutria from more than 250,000 acres of coastal marshland on the Delmarva Peninsula (encompassing Maryland's eastern shore, lower Delaware and Virginia's eastern shore). APHIS continued to monitor the area to remove remaining nutria and conduct rigorous systematic surveys. In 2023, the Chesapeake Bay Nutria Eradication Program was able to officially declare nutria eradicated from the Delmarva wetlands east of the Bay. To protect these historic gains, the FWS provided funding to establish an updated nutria range map in Virginia and to remove populations detected in an Early Detection/Rapid Response (EDRR) zone north of the James River that posed an immediate threat to the western marshes of the Chesapeake Bay. The Agency detected and eradicated two small and likely recent breeding populations and have identified a third. Nutria range has expanded westward and northward along the southern shore of the James River. Source populations south of the James River that threaten the EDRR zone have been identified and will be targeted for removal as resources allow.

APHIS partners with various Federal and State resource agencies, private organizations, and community groups to protect bird species covered under the Endangered Species Act, by preventing predation from other birds and mammals to nests, eggs, and juveniles. APHIS has estimated damages or damage threats to birds, including threatened and endangered species, to be more than \$70 million annually. Approximately 5,226 projects across 46 States, District of Columbia, Guam, and the U.S. Virgin Islands, benefitted protected bird species in 2023.

2. Wildlife Services Methods Development

Wildlife Services Methods Development (WSMD) funding supports research on effective and socially responsible methods to manage conflicts between people and wildlife to protect agriculture, natural resources, and human health and safety. WSMD provides research in support of the Agency's project areas such as feral swine and other invasive species, agriculture protection, rabies, wildlife disease, and population and reproduction control, among others. APHIS' National Wildlife Research Center (NWRC) provides the only dedicated Federal leadership in developing methods to manage wildlife-related damage problems. Scientists work on a variety of wildlife damage management problems through discovery, development, and technology transfer and the use of products and management methods to support Wildlife Services operational programs as well as public and private partners. The majority of NWRC studies involve partnerships with State and Federal agencies, non-governmental organizations, universities, tribal governments, and private sector businesses. In 2023, the NWRC had 204 active studies, produced 63 publications, collaborated with more than 150 entities, and had over 132,000 downloads from Digital Commons, a public platform for sharing research documents.

Agriculture

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

The APHIS National Feral Swine Damage Management Program protects agricultural and natural resources, property, animal health, and human health and safety from feral swine damage. NWRC improves the efficiency of existing control methods and develops new strategies to ensure the program and partners use safe, acceptable, and science-based management tools. In 2023, APHIS continued efforts to develop a feral swine toxicant, optimize control methods, monitor feral swine populations, assess damage to agriculture and natural resources, and understand public perceptions related to feral swine.

A safe and effective toxicant bait and delivery system is a critical tool for further reducing feral swine populations and their damage. In 2023, the NWRC conducted a field trial of an experimental toxic bait in Texas to gather data on

its effectiveness and associated risks during winter months. The results of this field trial showed that the toxicant was effective at reducing approximately 94 percent of a local population of feral swine that were using the bait sites. Hazards to nontarget species, including migrating passerine birds that fed upon bait remnants left by feral swine, remain a persistent challenge during field trials of this material. APHIS is currently working to reduce these hazards while sustaining its high lethality to feral swine. The Agency intends to submit a registration application to the EPA for a new toxic bait once a product has been fully developed and shown to be safe and effective.

In 2023, NWRC worked with human dimension researchers from Colorado State University and Texas A&M University to investigate the acceptability of various feral swine control methods by registered hunters in Texas. The goal of this research was to determine if acceptability of various feral swine control methods varied according to the hunter's affiliation with an agriculture, hunting, or conservation organization, or with no organizational affiliation. APHIS, in collaboration with university researchers, collected more than 37,000 survey responses, revealing that the majority of hunters were accepting of most control actions with the exception of toxicants and nonlethal deterrents. Hunters affiliated with agricultural organizations were the most accepting of control actions, while hunters with no organizational affiliations were least accepting. Most hunters preferred that feral swine populations be reduced but not eliminated in Texas, with a small segment of hunters preferring that feral swine populations increase. This information suggests that control actions that involve toxicants or nonlethal deterrents will require additional messaging and education for them to be more accepting by Texas hunters.

Black vulture populations are increasing and expanding their range in North America. This, combined with their ability to adapt well to human dominated landscapes, has contributed to increased human–vulture conflicts. In 2023, APHIS continued to document trends in black vulture conflicts, reviewed available management strategies, identified knowledge gaps, and provided recommendations to enhance the management and understanding of this species. Agency researchers also assessed the role of human-based and natural landscape features on vulture roost selection to inform managers where current and future roosts may likely occur. NWRC tested the effectiveness of inflatable scarecrows for reducing vulture damage to infrastructure and private property. Preliminary results suggests that vultures are more likely to be fearful of novel deterrents, such as inflatable scarecrows, in newly inhabited areas and these deterrents can be used to reduce vulture presence at some sites. Additionally, geneticists at NWRC developed a novel method for gathering DNA from vulture pellets at roost sites. Gathering vulture DNA provides APHIS researchers with critical population data, including mark-recapture data, population structure, relatedness, and informs movement studies. The technique may also be used for other species that regurgitate pellets, such as raptors, water birds, and shorebirds.

Chronic wasting disease (CWD) is found in 31 States and impacts numerous wild and farmed populations of deer and elk. Concerns about the impacts of CWD on wild and farmed cervid populations continues to prompt research studies to reduce the spread of the disease and minimize the impact on cervid populations and stakeholders. APHIS researchers use an investigative laboratory procedure called protein misfolding cyclic amplification to amplify minute amounts of CWD infectious material to a level that can be detected. In 2023, APHIS was co-sponsor of the 4th International CWD Symposium, where more than 400 participants convened to share research and experience to address CWD. Further, APHIS optimized modern amplification methods which supports research on molecular interactions of CWD to landscape and ecological processes. NWRC is also developing a sample archive to retain cervid samples collected by Federal and State agencies for use in diagnostic development and future research. Additionally, NWRC completed renovation of its new prion laboratory in 2023 in Fort Collins, Colorado, which allows the Agency to expand research and retain samples for future diagnostic testing.

Natural Resources

Invasive and feral species can have profound and transformative effects on native plants, animals, and ecosystems. APHIS aids in designing, implementing, and evaluating wildlife damage management activities on islands and other sensitive habitats; coordinates and provides guidance on the legal use and registration of vertebrate control methods; and assists in protecting reintroduced or recovering native species.

In 2023, NWRC continued to aid the Bureau of Land Management and other agencies seeking solutions to resolve damage from overabundant feral horse populations. GonaCon-Equine is an immuno-contraceptive vaccine developed by NWRC and registered by the EPA in 2013. GonaCon-Equine is administered to horses by using preloaded syringes injected by remote delivery dart. A recent study conducted by the University of North Dakota discovered increased effectiveness of a two-shot GonaCon-Equine series when given by remote darting, even when

the two shots were given at different intervals. NWRC is working with other agencies to customize procedures for their specific management areas using this existing tool and incorporating the latest research to increase effectiveness. Additionally, NWRC worked with the Forest Service and tribal nations in 2023 to conduct research on GonaCon-Equine effectiveness in stallions. The Agency also continues to pursue the development of single-shot contraceptive vaccines and direct acting agents.

The western Pacific Ocean coral atoll, known as Wake Atoll, is approximately 750 square kilometers and consists of three islands: Wake Island, Wilkes Island, and Peale Island. APHIS is collaborating with the U.S. Air Force and Island Conservation to conduct an eradication project on Wake Atoll for two invasive rodent species— Pacific rats and woodrats. In preparation for the eradication, NWRC worked with partners to determine the range of invasive woodrats on Wake Atoll. Animals were found on two of the three islands, and 38 were captured and removed. In 2023, NWRC received EPA approval for island conservation bait products containing the acute toxicant bromethalin (EPA Registration # 56228-65 and 56228-66). The use of a toxicant expands the number of tools available to remove invasive rodents on Wake Atoll, and possibly other islands to protect human health and safety and restore native ecosystems. The Wake Atoll rodent eradication project is scheduled to be completed in 2024.

In North America, bovine tuberculosis (TB) is recognized as a disease of cattle and deer. The Cooperative State-Federal Tuberculosis Eradication Program comprised of the USDA, State animal health agencies, and livestock producers has nearly eliminated TB from cattle in the United States. However, white-tailed deer remain a maintenance host for TB in some locations, and thus represent a barrier for eradication. Efforts to eradicate TB from the United States would be enhanced by optimizing the delivery of the TB vaccine to wild white-tailed deer. Currently, vaccine delivery to wild deer is impractical as it requires capturing and handling the animal and requires developing a novel approach for delivering the TB vaccine to wild deer. Rather than direct administration, APHIS encapsulated the vaccine in an edible polymer (*provisional patent filed*) which is coated with an edible alfalfa mixture. This product can be deployed in the field as an edible bait, eliminating the need for animal handling. Initial studies found that deer receiving the vaccine via the edible polymer had comparable immunological responses to those receiving the vaccine directly.

Human Health and Safety

NWRC develops and evaluates new tools and techniques to address human health and safety issues related to wildlife disease and aviation safety. Since 1995, the Agency has been working cooperatively with Federal, State, and local agencies, universities, and other partners to prevent the spread and reduce the prevalence of the rabies virus (RABV) in specific wildlife populations. Each year, APHIS and cooperators distribute oral rabies vaccine (ORV) baits to immunize target wildlife populations within control zones to prevent the spread of raccoon RABV.

NWRC's develops new tools and techniques, and evaluates disease management strategies, to support APHIS' National Rabies Management Program and its mission to prevent the spread of wildlife rabies and protect U.S. public health, agriculture, and natural resources. When a breach in a rabies management zone occurs, APHIS and its partners, respond to prevent the spread of RABV to new areas and to eliminate the local outbreak. Though a critical part of wildlife disease management, these contingency actions can be very costly. In 2023, APHIS retrospectively evaluated and determined that local enhanced rabies surveillance associated with contingency actions (e.g., hand vaccination, animal removals, and enhanced ORV) increased the likelihood of detecting additional rabies cases. Based on this finding, it is recommended that rabies managers continue to consider a combination of management strategies in response to local contingency cases of raccoon RABV in the eastern United States.

Collisions between wildlife and aircraft have increased in the past 30 years because of an increase in both hazardous wildlife species populations and aircraft movements. Through the Airport Wildlife Hazards Program, APHIS provides operational and technical assistance to airports. In 2023, the Agency is conducted a series of trials at airports in eight States (North Carolina, Oklahoma, Michigan, South Carolina, South Dakota, Virginia, Washington, and Wisconsin) in partnership with Arkion Life Sciences, LLC on the effectiveness of wildlife repellents at airports. The Agency collaborated with Arkion to develop and register Flight Control® Max, an anthraquinone-based wildlife repellent. Anthraquinone is a naturally occurring compound that is found in more than 200 plant species. When eaten, anthraquinone has a repellency effect in many wild birds and some wild mammals, including mice, voles, squirrels, prairie dogs, rabbits, raccoons, and feral swine. Trials are ongoing, but as of 2023, six of the eight airports indicated they would continue to use the repellent to help reduce wildlife damage and hazards at their facilities if made available. Results from these trials will support the development of best management practices for the use of repellents at airports.

Partnerships and Technology Transfer

The Federal Technology Transfer Act of 1986 allows Federal laboratories and industry to form partnerships that enhance the development of new technologies and move them to the marketplace to meet public and consumer needs. APHIS regularly partners with Federal and State entities, private companies, international groups, and non-governmental organizations to encourage the development and licensing of new wildlife damage management products to manage wildlife conflicts. NWRC partners with universities and small businesses to develop and enhance frequently used technologies including wildlife damage management devices, baits, formulations, and vaccines. In 2023, NWRC furthered its partnership efforts to make sure its research and development activities had a path for commercial development and operational management with the following: 5 Confidentiality Agreements, 2 Data Sharing Agreements, 15 Material Transfer Agreements, 15 Material Transfer Research Agreements, 2 Cooperative Research and Development Agreements, 1 Invention Disclosure, 5 Provisional Patent Applications, 1 Non-Provisional Patent Application, and 3 foreign patents issued.

Selected Examples of Recent Progress – Regulatory Enforcement:

1. Animal and Plant Health Regulatory Enforcement

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

In 2023, APHRE initiated 971 new cases, issued 501 official warnings, issued 476 pre-litigation settlements resulting in the collection of \$1,355,414 in stipulated penalties, and obtained administrative orders assessing \$427,198 in civil penalties. The Agency considers a case complete after it issues an official warning or voluntary settlement to which the recipient agrees, finds there is insufficient evidence to support regulatory correspondence or enforcement action, or refers a case to the USDA's Office of the General Counsel (OGC).

To support animal health, APHRE initiated 92 cases, issued 70 official warnings, issued 25 pre-litigation settlements resulting in the collection of \$54,063 in stipulated penalties, and obtained one administrative order with a civil penalty of \$210,000, which respondent has appealed to federal court. In that case, working through the OGC, APHRE obtained a Decision and Order assessing a \$210,000 civil penalty. Additionally, a precedent-setting ruling was given to resolve violations of the Animal Health Protection Act (AHPA) and Commercial Transportation of Equine for Slaughter Act, where multiple equines were moved interstate without health certifications, including an equine that tested positive for Equine Infectious Anemia. In two other cases, APHRE negotiated pre-litigation settlements in the amounts of \$12,750 and \$5,000, respectively, to resolve violations of the AHPA related to the use of fraudulent documents to circumvent animal health safeguarding requirements.

To support plant health, APHRE initiated 25 cases, issued 19 official warnings, negotiated 8 pre-litigation settlement agreements resulting in the collection of \$39,125 in stipulated penalties, and obtained one administrative order assessing \$6,250 in civil penalties. APHRE negotiated a pre-litigation settlement in the amount of \$7,750 in one case involving the importation of shipments from China and Hong Kong without phytosanitary certificates or import permits, where inspection revealed live rooted trees with attached soil, plant pests, and plant diseases in violation of Plant Protection Act (PPA) safeguarding regulations. In another case, APHRE negotiated a pre-litigation settlement for \$7,125 for violations of the PPA involving removal of seals on containers of blueberries prior to required fumigation.

To support AQI activities, APHRE initiated 525 cases, issued 198 official warnings, issued 428 pre-litigation settlement agreements, resulting in the collection of \$1,039,476 in stipulated penalties, and obtained two administrative orders resulting in the assessment of \$360,600 in civil penalties. In one ecommerce case, APHRE negotiated a pre-litigation settlement in the amount of \$150,000 to resolve violations of the PPA related to shipments from China containing plants for planting without import permits or phytosanitary certificates. APHRE also negotiated pre-litigation settlement agreements in the total amount of \$432,406 to resolve numerous alleged violations of the PPA and the AHPA relating to the handling of regulated garbage.

To support animal welfare, APHRE initiated 262 cases for alleged violations of the Animal Welfare Act (AWA), issued 214 official warnings, issued 15 pre-litigation settlements resulting in the collection of \$222,750 in stipulated penalties, obtained 19 administrative orders resulting in the assessment of \$35,700 in civil penalties, and suspended or revoked 16 licenses. In one case, working through the OGC and U.S. Department of Justice, APHRE obtained a Consent Decision and Order permanently revoking a dealer's AWA license. In another case, APHRE negotiated a pre-litigation settlement agreement in the amount of \$37,900 to resolve alleged violations of the AWA standards.

To support horse protection, APHRE worked with the OGC to obtain an administrative order disqualifying 1 person from participating in activities regulated under the Horse Protection Act (HPA) for a period of 4 years, with a civil penalty of \$22,448. In addition, APHRE initiated 66 new cases for alleged violations of the HPA, 55 of which have been referred to OGC for administrative action, resulting in 15 administrative complaints. Additional actions, civil penalties and fines related to these cases are still pending at this time.

APHRE will continue to post copies of enforcement records (such as initial decision and orders, default decisions, consent decisions, and administrative complaints) on its website:

<https://www.aphis.usda.gov/aphis/ourfocus/animalwelfare/actions>.

2. Biotechnology Regulatory Services

APHIS' biotechnology regulatory system safeguards American agriculture and agriculturally important resources and fosters the safe research, development, and commercialization of innovative new agricultural products. Under the Plant Protection Act's (PPA) authority, APHIS oversees plants and certain organisms developed using genetic engineering (modified plants and modified organisms) that may pose a plausible pest risk to plants. The regulations allow APHIS to place requirements on field testing, importation, and interstate movement of modified plants and organisms, unless a modified plant is exempt from regulation, or the Agency reviews a modified plant and determines it is unlikely to pose a plant pest risk.

Regulatory Changes

In 2023, APHIS successfully continued its operations under the newly revised biotechnology regulations (7 CFR part 340), which were published in May 2020. In 2023, APHIS issued four guides and a template to assist developers in navigating and complying with the revised regulations. These guides assist developers in applying for multi-year permits, applying for microorganism permits, submitting data for reports and notices, and requesting a Regulatory Status Review (RSR) for a modified plant. Since the implementation of the revised regulations, both the number of regulatory review requests received and the proportion that are from small and mid-sized developers have more than tripled compared to what APHIS received under the legacy regulations, demonstrating the effectiveness of the revised regulations in expanding opportunity and fostering innovation in biotechnology.

Authorizations

Developers must obtain an authorization for the movement—importation, interstate movement, or environmental release—of modified plants and organisms unless exempt from regulation or the Agency has reviewed a modified plant and determines it is unlikely to pose a plant pest risk. As part of the authorization process, APHIS evaluates potential risks associated with regulated activities and imposes specific permit conditions to ensure confinement of modified plants and organisms. In 2023, APHIS issued 784 authorizations to 225 organizations (academia, developers of all sizes, and government research groups) to use novel plants and organisms developed using genetic engineering. The Agency completed 90 percent of 2023 authorizations within target timeframes specified in the regulations.

Regulatory Review for Nonregulated or Exempt Status

Under the revised regulations, developers may request an RSR to learn whether a modified plant is subject to the regulations. The RSR process evaluates a modified plant relative to an appropriate comparator to determine whether the modified plant requires oversight based on its characteristics, rather than on the process used to develop the plant. In 2023, APHIS received 48 RSRs, 94 percent of which were requests by small-to-medium sized developers and public institutions, in contrast to the legacy regulations where these groups represented just 25 percent of all

reviewed products. These requests also included 10 crops that had never been reviewed under the legacy petition process. APHIS issued 15 responses to RSR requests for: three potato varieties with altered nutritional qualities and reduced browning; two corn varieties with altered plant architecture and herbicide resistance; three soybean varieties, including two fluorescent varieties; blue chrysanthemum; teff with altered plant architecture; safflower with altered seed oil; fluorescent tomato with antibiotic resistance; fluorescent petunia; disease resistant walnut; and herbicide resistant hemp with altered composition. This represents more than three times the average number of annual responses issued under the legacy regulations.

Additionally, APHIS' new Confirmation Request (CR) process allows developers to voluntarily request a confirmation from APHIS that a modified plant qualifies for an exemption and is not subject to the regulations. In 2023, APHIS responded to 40 requests for confirmations of exempt status within 52 days, on average, of receiving a complete request (68 days faster than the timeframe specified in the regulations). All responses were issued to small or medium sized developers, expediting innovative product development for agricultural use and domestic and international markets, including, for example, sweet orange with disease resistance, pennycress with altered seed composition, apple with altered fruit quality (non-browning), potatoes with altered tuber quality (non-browning), corn with altered reproductive function, and tomato with altered fruit characteristics.

Compliance and Inspections

APHIS requires developers to comply with permit requirements to help ensure that modified plants and organisms remain confined and do not persist in the environment. APHIS inspects fields, equipment, and other associated facilities to ensure regulated activities meet the requirements outlined in the permit. In 2023, APHIS conducted 711 inspections. These inspections resulted in the issuance of over 592 notices of compliance and 119 notices of noncompliance with APHIS biotechnology regulations and permit requirements. Other compliance evaluation processes (self-reporting, late reporting, etc.) resulted in issuance of 13 notices of compliance and 59 notices of noncompliance.

APHIS continues to strengthen its oversight of regulated field trials. In 2023, APHIS continued using a risk-based inspection selection processes and updated compliance inspection worksheets for containment facilities and environmental releases of modified microorganisms. APHIS continued to use technology, such as satellite imagery, to enhance oversight through virtual monitoring of regulated field trials. Additionally, APHIS updated supplemental permit conditions for field trials, streamlining, reducing unnecessary requirements, and improving clarity for regulated entities. APHIS also incorporated compliance data into the electronic permitting system, APHIS eFile, to allow for more efficient compliance history checks while evaluating permit applications.

Partnerships

APHIS continued to work with the Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA) to share information about, and improve regulatory oversight of, modified plants and organisms. In particular, APHIS collaborated with EPA and FDA on implementing President Biden's Executive Order 14081, "Advancing Biotechnology and Biomanufacturing Innovation for a Sustainable, Safe, and Secure American Bioeconomy" through issuing a Request for Information on regulatory gaps, ambiguities, and uncertainties, issuing a report on and developing plain language information on biotechnology product regulation by the three agencies. APHIS also continues to collaborate with FDA on the "Feed Your Mind" initiative to increase public knowledge of biotechnology and updated the Unified Website for Biotechnology Regulation to include plain language information on the agencies' roles and responsibilities to aid developers in navigating the regulatory processes and a summary report of public comments involving a Request for Information agencies issued to help identify gaps, ambiguities, and uncertainties related to the regulatory processes. Additionally, APHIS' international outreach efforts aim to reduce the likelihood of trade disruptions by encouraging focus on practical, risk- and science-based regulatory approaches globally. As part of these efforts, APHIS serves as the U.S. government lead of the Working Group on Harmonisation of Regulatory Oversight in Biotechnology in the Organization for Economic Co-operation and Development, which promotes international harmonization in environmental risk/safety assessment and regulation of organisms produced through modern biotechnology. The Agency is also part of the interagency working group for the Cartagena Protocol on Biosafety, as well as its parent convention, the Convention on Biological Diversity.

APHIS engages in capacity building efforts for foreign regulatory officials and scientific advisors by conducting presentations, participating in international forums, and serving on committees. In 2023, APHIS delivered approximately 10 presentations and seminars to diverse international organizations, regulators, reviewers, and

scientists from over 40 countries and economies and participating in 6 bilateral engagements between regulators and scientists from the United States and Bangladesh, Japan, the Philippines, South Korea, Taiwan, and Zambia, including hosting two in-person international meetings with Japanese and South Korean regulators. Global progress in biotechnology regulations this year included: the Philippine’s implementation of their regulations and the approval of a non-browning banana; new guidance from Canada, including the Canadian Food Inspection Agency’s guidance on genome editing; the European Union’s proposed regulations for new genomic techniques; and coalition-building among South American countries, particularly Argentina and Brazil, which led to strong interventions at the December 2022 Cartagena Protocol meeting consistent with U.S. interests.

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 health emergencies. The program’s goal is to respond to an animal health event within 24 hours from the time APHIS determines that a Federal emergency response is needed to manage an agricultural outbreak. Through this program, APHIS and the Centers for Disease Control and Prevention (CDC) jointly manage the Federal Select Agents Program (FSAP), which oversees the possession, use, and transfer of biological select agents and toxins that have the potential to pose a severe threat to public, animal or plant health, or to animal or plant products.

Preparedness, Partnerships, & Planning

APHIS’ National Preparedness and Incident Coordination Center (NPIC) develops animal health emergency management guidelines to protect U.S. animal agriculture through collaborative, science- and risk-based strategies, and creates dynamic, real-world learning scenarios to build response capabilities of emergency responders, which helps maintain the Agency’s response readiness. In 2023, APHIS continued to sustain its animal health readiness capacity by maintaining five Incident Management Teams (IMT) comprised of 28 volunteer first-responders per team. At any time, one of these teams is ready to deploy anywhere to respond rapidly and effectively to animal health disease events. These teams regularly experience personnel turnover reflecting a normal cycling of volunteer positions. IMT members participate in training and workshops on the Incident Command System, animal disease, and information technology. Many of these trainings and workshops are hosted by the NPIC National Training and Exercise Program.

In 2023, the EPR program provided map and geospatial support for the outbreak of highly pathogenic avian influenza (HPAI), including situation reports and map products for incident coordination and briefings. For example, the program developed products that displayed ineligible trade zones for all HPAI confirmed cases. The program also developed and managed interactive map tools to support trade between the United States and Canada, verifying that exported poultry products did not travel within restricted zones.

APHIS began a Ready Response Corps pilot program in 2023 to expand its emergency response capacity and alleviate the strain on the Agency’s workforce during animal disease emergencies. The Ready Response Corps is designed to bolster APHIS’ ability to address animal disease threats while continuing to achieve its mission. The Agency announced positions for 12 animal health professionals to be placed in geographic areas that are at high risk for outbreaks affecting larger or more complex poultry operations. These professionals have unique position descriptions that designate their availability to deploy and support national level response. Placing staff in areas of high livestock and poultry density will allow for increased response capacity and close collaboration with State animal health officials and industry partners.

This program also protects the health and safety of Agency personnel. Respirators are vital in protecting workers from significant hazards including insufficient oxygen and harmful pollutants. They are also needed in case of an avian influenza outbreak or an emergency response that requires hazardous chemicals. To comply with regulations instituted by the Occupational Safety and Health Administration, APHIS trains employees as respirator fit-testers and annually fit-tests any employees who may use a respirator. After two training sessions in 2023, the Agency had 168 trained testers at the end of the fiscal year (compared to 131 at the end of 2022). In addition, APHIS increased the number of fit-tested employees to 1,711 in 2023 compared to 719 in 2022. The Agency also maintained and calibrated 32 testing units in 2023 to ensure they met requirements.

APHIS enhanced animal emergency response coordination in 2023 through partnership with the Zoo and Aquarium All-Hazards Partnership (ZAHP), a collaborative effort between USDA and the Association of Zoos and Aquariums. The effort provided outreach to more than 680 entities including zoos, aquariums, wildlife parks, sanctuaries, rehabilitation facilities, science centers, professional associations, hobbyist groups, private owners, private veterinary practitioners, and State, Federal, and local emergency management agencies. Activities included webinars and other events covering topics such as HPAI impacts on zoos, biosecurity and resilience. The ZAHP also presented an online seminar on emergency animal transport, published tabletop exercise resources, and created a public page for Animal Welfare Act (AWA) licensees seeking bird regulation resources. The Agency concluded its collaboration with the University of Kentucky to update best practices documents on topics such as animal sheltering, animal evacuation and transportation, search and rescue, animal decontamination, veterinary medical response, community outreach and engagement, planning and resource management, and incident command and coordination. These documents were published on the site of the National Alliance of State Animal and Agricultural Emergency Programs. In 2023, APHIS initiated two cooperative agreements with States to strengthen their ability to assist animals in an emergency with enhanced contingency planning. All AWA licensees are required to have contingency plans in place. APHIS also had frequent contact with government and non-governmental partners to develop and interpret policy and guidance for pet care during an emergency. In 2023, the Agency provided animal welfare resources and expertise to assist the Typhoon Mawar response in the Philippines.

Response Efforts and Foreign Animal Disease Investigations

In 2023, FEMA activated Emergency Support Function (ESF) #11 coordinators 11 times to respond to or provide support for incidents including wildfires, hurricanes, severe storms/tornados, and flooding. APHIS dispatchers worked with Agency programs processed 1,297 resource requests, including 177 deployments for volunteers to support 27 agricultural and all-hazards incidents. For example, employees supported response efforts involving animal diseases and natural disasters including response and recovery associated with typhoon Mawar, hurricanes Hilary and Idalia, flooding in Vermont, and the Maui wildfires. The Agency's National Incident Management System Training and Exercise Program delivered 14 courses across the country to prepare APHIS emergency responders and IMTs for emergency deployments.

In 2023, APHIS conducted 2,195 foreign animal disease investigations, of which 1,199 or 55 percent were vesicular disease investigations. Vesicular diseases are viral diseases that affect various livestock animals, primarily swine and cattle. The most concerning vesicular disease is foot and mouth disease, which is the highest consequence foreign animal disease in terms of regulatory intervention and economic consequences. Several vesicular diseases exhibit similar clinical signs and can only be differentiated through laboratory testing. In addition, 714 or 33 percent, of the investigations were poultry investigations. The high number of poultry investigations is attributable to heightened concern due to the 2022 HPAI outbreak.

Safeguarding of Select Agents

APHIS and the CDC jointly administer the select agents and toxins regulations as the Federal Select Agents Program (FSAP). To eliminate potential conflicts of interest, the CDC inspects USDA facilities, and APHIS inspects CDC facilities that possess select agents. APHIS' Division of Agricultural Select Agents and Toxins (DASAT) ensures that registered facilities promptly address non-compliances and take corrective actions. As of September 30, 2023, 231 entities were registered with FSAP; 195 were registered with the CDC and 36 were registered with APHIS. In 2023, DASAT completed 77 inspections consisting of 44 verification inspections, 29 registration renewal inspections, 2 amendment inspections, 1 new registered entity inspection, and 1 new space/new agent inspection. DASAT conducted 63 onsite inspections, 13 hybrid inspections, and 1 remote inspections. Additionally, 51 of the inspections APHIS conducted were joint inspections with CDC. DASAT also collaborates with other agencies that have laboratories registered with the FSAP. In 2023, DASAT was accompanied by the Department of Homeland Security on two inspections, the Department of the Army Inspector General on one inspection, and the Food and Drug Administration on one inspection. BSL-4 inspections involve dangerous and exotic agents that pose a high risk of laboratory infections and life-threatening disease for which there are no vaccines or treatments. Six of the 77 inspections conducted by DASAT in 2023 were BSL-4 inspections. DASAT identified deficiencies during these inspections and notified the inspected entities so that they can take swift corrective action. DASAT also worked with the Federal Bureau of Investigation (FBI), which conducts security risk assessments for the program, to evaluate individuals requesting access to the select agents and toxins. In Calendar Year (CY) 2023, FSAP facilitated 2,796 FBI security risk assessments with 8,599 approved individuals and restricted the access of 16 individuals based on FBI investigations, preventing potential misuse or handling of the select agents and toxins by individuals who may

be bad actors. In addition, DASAT continued to respond to an Office of Inspector General audit by providing final responses to all 11 audit recommendations. FSAP continued to coordinate with representatives from APHIS and the Agricultural Research Service (ARS) overseeing the stand-up of the National Bio and Agro-Defense Facility in Kansas to provide guidance on select agent registration in 2023. DASAT provided input on certain National Security Council initiatives to help inform policy makers about the role of the select agent program, as well as on select agent regulatory standards and the select agent program’s facility registration approval process.

Modeling and Monitoring

APHIS uses epidemiologic and economic models to better understand historical events, estimate consequences, and inform strategic, logistical, and budgetary decisions by evaluating varying interventions related to animal health. In 2023, the Agency continued to develop and/or update disease-spread and control models for African Swine fever (ASF), foot and mouth disease, and HPAI. For example, the ASF model was characterized with the addition of the boar studs production type. Boar studs reflect centralized premises where semen is collected frequently from domestic boars and distributed to multiple breeding farms, potentially across multiple States and production systems for use in the artificial insemination of gilts and sows. Recent literature indicates that semen can become infectious within days of a boar becoming infected, before disease detection may occur. As a result, boar studs pose a high risk for potential disease transmission to multiple farms. APHIS hopes that incorporating this production type into the ASF model will provide insight into the processes that drive infection transmission and disease persistence. This is the first epidemiological model to include this production type, which will support future risk assessments with Agency collaborators.

In partnership with ARS, APHIS continued to develop modeling applications and disease-spread scenarios in the InterSpread Plus model to explore the impact of alternative control strategies on the severity and duration of simulated, national-level ASF and foot and mouth disease outbreaks. These applications and scenarios support field responder training exercises and strengthen surveillance strategies before a potential outbreak as well as during an outbreak. APHIS and ARS used these model scenarios to inform emergency response planning and evaluate the effectiveness of applying network-based controls during simulated foot and mouth disease outbreaks. In 2023, APHIS applied these models to guide decision-making and support resource planning associated with ASF outbreaks in the Caribbean and HPAI outbreaks in North America. APHIS also maintains models for classical swine fever, bluetongue virus, and virulent Newcastle disease.

SAFE TRADE AND INTERNATIONAL TECHNICAL ASSISTANCE

Current Activities

APHIS monitors animal and plant health throughout the world and uses this information to set effective agricultural import policies to prevent the introduction of foreign animal and plant pests and diseases. APHIS and the Department of Homeland Security cooperate to enforce these policies 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. The Agency also provides scientific and technical support in resolving sanitary (animal) and phytosanitary (plant) trade barriers.

APHIS negotiates animal and plant health certification requirements, assists U.S. exporters in meeting foreign regulatory requirements, ensures requirements are proportional to risk without being excessively restrictive, and provides any necessary technical information to support the safety of U.S. agricultural products destined for foreign markets.

Selected Examples of Recent Progress in Facilitating Safe Trade:

1. Agriculture Import/Export

APHIS works with other Federal agencies, States, foreign governments, industry, and academia to protect U.S. agriculture while facilitating the safe trade of animals and animal products. APHIS’ animal health experts ensure that U.S. import requirements safeguard U.S. livestock health and negotiate requirements for the export of U.S. animals and animal products worldwide. These requirements are based on compliance with international standards, sound scientific principles, and fair-trading practices for animals and animal products. In addition, 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 conducts activities related to the 2008 Farm Bill amendments to the Lacey Act, which prohibit the importation of any plants, with limited exceptions, that are taken or traded in violation of domestic or international laws. The Act requires a declaration for imported shipments of most plants or plant products. A 2012 study by the United Nations Environmental Programme estimated the value of illegal logging, including processing, to be between \$30 to \$100 billion dollars, or 10 to 30 percent of the global wood trade. The Lacey Act amendments are designed to help combat this illegal logging by encouraging importers to research their supply chains and be aware of the laws governing products they purchase in other countries. APHIS' role is to evaluate and implement existing regulations, provide guidance to importers regarding the required declaration, perform compliance checks, provide enforcement agencies with declaration information to assist their investigations, and maintain declaration records.

Imports

To facilitate imports, APHIS evaluates the animal health status of regions that wish to export animals and/or animal products to the United States. This evaluation process minimizes the risk of introducing foreign animal diseases through importation and is consistent with international trade requirements. In 2023, APHIS completed several evaluations and published regulatory actions based on those evaluations in the Federal Register. These include notices to recognize Thailand and North Macedonia as African swine fever-affected regions as well as notices to recognize Ecuador, Gabon, Guinea, Moldova, and Peru to the list of regions that APHIS considers to be affected with highly pathogenic avian influenza. These regulatory actions establish interim restrictions on the importation of animals and animal products to the United States due to various disease outbreaks in other countries. To ensure countries have appropriate surveillance, prevention, and control measures in place, APHIS conducts site visits around the world to minimize the likelihood of introducing foreign animal diseases into the United States. These included Colombia for foot and mouth disease, as well as Brazil and Panama for Newcastle disease.

APHIS ensures that import regulations are effective and science-based and works with U.S. businesses and importers to facilitate safe trade. For example, APHIS worked with States in 2023, to better understand State-level disease control options and how they can support trade. The Agency implemented a customer-friendly veterinary permitting assistant tool to support the new integration of the eFile system for all animal permitting needs. Through eFile, users can manage applications, registrations, permits, and licenses online. Additionally, APHIS issued approximately 21,400 import, transit, and interstate permits for live animals, animal products, organisms, and vectors in 2023. These include new permits, renewals, and amendments.

Exports

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 2023, APHIS negotiated or re-negotiated 105 export protocols for animal products (5 new markets, 86 re-opened markets, 8 expanded markets, and 6 retained markets). To complete export requests, APHIS conducted voluntary inspections of approximately 1,100 U.S. manufacturing facilities to maintain, expand, or open export markets in many countries.

In 2023, APHIS opened, expanded, retained, or reopened 72 live animal export markets. This includes retaining market access for poultry exports in numerous countries that imposed restrictions due to outbreaks of highly pathogenic avian influenza and Virulent Newcastle disease. APHIS also assisted export markets by participating in industry stakeholder meetings on obtaining new market access, provided technical support to the Office of the U.S. Trade Representative for World Trade Organization (WTO) cases, coordinated, or supported audits with trade partners with whom we have requested new market access, and engaged in bilateral trade meetings. In addition, APHIS developed information packages and questionnaire responses from various countries to maintain, expand, or open export markets as well as to release held shipments. In 2023, APHIS endorsed approximately 347,000 export health certificates for animal products, livestock, poultry, germplasm, and pets.

APHIS utilizes a two-tiered approval system for the issuance and endorsement of U.S. origin veterinary export health certificates for live animals, including germplasm. A USDA Accredited Veterinarian qualifies the animal for

export, performs the pre-export examination, and issues (completes and signs) the veterinary export health certificate. After the export certificate is issued by a USDA Accredited Veterinarian, it is sent to APHIS' Veterinary Services as the U.S. Competent Authority for Animal Health for review and endorsement. In 2023, APHIS continued to streamline this process and increase the number of live animal health export certificates issued electronically this year by expanding the system capabilities for the Agency's online Veterinary Export Health Certification System (VEHCS). VEHCS capabilities include digital signature, multiple user roles, a certificate upload feature, certificate re-issuance, and inclusion of supporting documents and payment information. APHIS continues to expand the number of countries and commodities for which electronic certification is available. In 2020, APHIS issued a notice to the WTO indicating the acceptance of electronic USDA Accredited Veterinarian signature for the issuance of all live animal export health certificates submitted to APHIS for endorsement. Since issuing this notice, APHIS' digital endorsement for live animal export certificates is currently accepted by 47 countries.

Lacey Act

In 2023, APHIS received over 1.5 million Lacey Act declarations electronically or on paper (the vast majority were received electronically through the Department of Homeland Security's Customs and Border Protection's (CBP) Automated Cargo Environment (ACE) system). Since implementing the 2008 amendments to the Lacey Act, APHIS has added products to the declaration requirement/enforcement schedule in phases. APHIS implemented phase six in 2022, which expanded the Lacey Act declaration requirement to items such as new wooden pallets and containers, some essential oils, and certain musical instruments made of wood, among other items. In 2023, APHIS began preparing for phase seven, which will cover all remaining non-composite wood products for which declarations are not already required. APHIS attended a variety of trade shows, participated in panel discussions, and conducted webinars to engage stakeholders who will be covered in phase seven. Due to the complexity involved in the production of composite products and the likelihood of additional rulemaking for declaration requirements, they will be addressed in phase eight, which APHIS anticipates will be the final implementation phase. APHIS continued conducting outreach to stakeholders to understand the details of composite product construction to understand the difficulties for the industry in meeting current declaration requirements. In 2023, APHIS issued more than 850 letters of noncompliance for importers whose declarations contain errors. This non-punitive outreach tool informs filers that there are likely errors in their declaration, that corrections should be made in future filings, that enforcement action could be taken on future filings, and provides contact information for questions or concerns. APHIS and its Federal partners (including other USDA agencies, CBP, the U.S. Department of Justice, and the U.S. Fish and Wildlife Service) continued to expand and improve Lacey Act compliance programs by developing plans for and conducting documentation reviews of importers, continuing development of wood identification technologies, and considering alternatives to seizing and forfeiting shipments due to the time and cost involved.

In 2020, APHIS received supplemental funding under the United States-Canada-Mexico trade agreement to carry out enforcement of the Lacey Act Amendments related to trade in plant and plant products between the United States and Mexico. In 2023, used USMCA funds for several risk analysis and risk metric development projects to help improve efforts to identify potentially illegally harvested products. Illegally harvested and traded timber continues to be a significant global problem. CBP estimates that illegal logging is the most profitable natural resource crime and the third most profitable transnational crime behind counterfeiting and drug trafficking. The projects funded through USMCA are designed to improve APHIS' and its partners' ability to target enforcement efforts to the highest-risk commodities and shipments. Projects in 2023 include development of penalty guidelines for violations of the Lacey Act as part of the compliance and enforcement effort, risk metrics based on importer behavior and patterns, and risk metrics related to transshipment of products through intermediary countries like Mexico. APHIS also provided grant funding to the International Wood Products Association (IWPA) to develop training for industries that will be covered by the next phase of Lacey Act declaration enforcement. IWPA has developed a suite of educational programs for its members designed to teach compliance basics and support the development of industry-wide approaches to due diligence. These programs include both online on-demand programming as well as intensive in-person education. IWPA will use this grant to expand its educational offerings to industries that will be incorporated in phase seven.

2. Overseas Technical & Trade Operations

Through the Overseas Technical and Trade Operations (OTTO) program, APHIS facilitates market access for U.S. farmers and ranchers to export their products to other countries by addressing animal and plant health-related issues

that impede or prevent trade of U.S. agricultural products. APHIS uses its technical expertise to develop science-based agreements with other countries to promote U.S. exports, and internationally recognized scientific standards and guidelines for animal and plant health regulations to help ensure implementation of uniform sanitary and phytosanitary (SPS) trade regulations globally. To accomplish these goals, the Agency collaborates with USDA's Foreign Agricultural Service (FAS), the Office of the U.S. Trade Representative and other Federal technical agencies to ensure a coordinated effort on trade-related issues and provide direct benefits to U.S. producers. These efforts facilitated the export of U.S. agricultural products, which totaled \$196 billion in calendar year 2022, an increase of 11 percent over the previous year (FAS' 2022 United States Agricultural Export Yearbook).

APHIS uses its strong scientific base and team of technical experts located in the United States and abroad to advocate on behalf of U.S. agriculture and successfully resolve SPS trade barriers. APHIS technical experts build strong working relationships with host-country counterparts and use their scientific knowledge to address counterpart concerns, confirm that U.S. commodities are safe to import and remove trade barriers for American agricultural exports. These conversations take place via ongoing discussions, technical bilateral meetings, and multilateral fora. APHIS has scientists, including veterinarians, entomologists, botanists, and plant pathologists, stationed throughout the world in more than 30 countries who collaborate with their foreign counterparts on animal and plant health issues to support U.S. exports and the establishment of science-based international animal and plant health standards that facilitate trade and reduce animal and plant health-related risks.

Examples of APHIS' 2023 successes in creating new market access include live cattle to Israel worth an estimated \$75 million over the next 5 years and fresh grapefruit to Vietnam worth an estimated \$5 million per year. APHIS also opened markets for blood products and bovine meat and bone meal to Argentina, Chile, and Colombia; bovine genetics to Algeria; chickpea seeds to Argentina; and tobacco seeds to Paraguay. APHIS works to expand U.S. producers' access to export markets and to retain markets that are threatened due to changing requirements in other countries or pest and disease outbreaks in the United States. In 2023, APHIS reached an agreement with the European Union for a systems approach for oak logs with veneer, reopening a \$12 million annual market that had been closed for several years. APHIS worked with South Korea to develop an agreement allowing California walnuts to be shipped in shells, reducing processing costs for U.S. exporters. Showing the success of APHIS' efforts over the last several years to implement agreements regarding regionalization for animal disease emergencies, many trading partners continued to not impose restrictions on U.S. poultry products from counties that did not experience avian influenza outbreaks in 2023. Kuwait agreed to regionalize U.S. poultry trade at the county level, and Taiwan agreed to place restrictions at the premises level for U.S. table eggs and egg products. The value of U.S. poultry product exports increased in calendar 2022 to \$5.9 billion from \$5.2 billion in 2021 and remains strong in 2023, with the value of exports January to August 2023 at \$3.6 billion. Past successes also continue to add value for U.S. exporters. APHIS reached an agreement with its counterparts in Mexico in 2022 to expand access to the market for U.S. potato producers. Exports of potatoes to Mexico from January to August 2023 were 49 percent higher compared to that same period in 2022. Total exports of U.S. potatoes to Mexico were worth \$82 million in 2022.

APHIS must continually address SPS issues to ensure continued smooth trade for U.S. exporters, even for markets that are open to U.S. agricultural products. 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 delayed at foreign ports, APHIS negotiates the overseas process to get products released and moving again. APHIS successfully secured the release of 187 shipments worth more than \$98 million in 2023. Examples of these detained shipments that were released through our interventions on the ground included a shipment of wheat to Vietnam worth more than \$13 million, two shipments of breeding cattle to Turkey worth more than \$4 million each, and breeding horses to Japan worth more than \$2 million.

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. During 2023, APHIS' International Visitors' Center hosted 10 foreign engagements related to agricultural trade and U.S. regulatory processes, attended by 237 officials from Canada, Chile, Japan, Korea, Mexico, Taiwan, and Vietnam. The center also provided several APHIS regulatory subject matter experts to an additional 18 events attended by 165 participants from Africa, Asia, the Caribbean, Central America, Europe, North America, the Middle East, and South America. Through cooperative agreements with Kansas State University, the University of Delaware, and Tuskegee University, APHIS facilitated the delivery of technical seminars, discussions, and workshops to 121 animal and plant health officials representing 35 countries in Asia, Africa, Europe, and Latin America. These activities trained participants on high containment laboratory practices and techniques, identifying and managing poultry diseases, implementing SPS standards, and conducting risk analyses. They help other countries improve their technical regulatory capacity and prevent the

spread of serious animal diseases and plant pests that could jeopardize the safe trade of agricultural products and threaten United States agriculture.

APHIS emphasizes use of scientific principles as a basis for international trade decisions to help ensure the same rules apply to countries around the world and foster a safe, successful trading environment. To achieve this level playing field and ensure pest and disease mitigation, APHIS works with international standard-setting bodies such as the World Organisation for Animal Health (WOAH), formerly abbreviated as OIE, and the International Plant Protection Convention (IPPC) to develop SPS standards and guidelines for trade and encourages other countries to adopt these internationally recognized and science-based regulatory guidelines. APHIS increases U.S. agricultural exports by advocating for science-based international standards acceptable to the United States, and used those standards when negotiating for market access for U.S. products. This safeguards domestic production from foreign diseases and pests, while promoting safe trade of U.S. agricultural commodities. In 2023, APHIS participated in the Commission on Phytosanitary Measures (the IPPC's governing board) effort to adopt 5 international standards to help harmonize pest prevention measures for reducing contaminating pests in regulated articles and unregulated goods. Additionally, APHIS continues to participate in key IPPC committees, including those focused on strategic planning for the organization and a task force focused on preventing pests and disease in sea containers. In the animal health arena, WOAH adopted 52 international standards in 2023 in areas such as disease surveillance and notification, disease diagnostics, and control. Additionally, APHIS contributed to ongoing negotiations for the SPS aspects of a new generation of trade agreements, including the Indo-Pacific Economic Framework for Prosperity agreement; the U.S.-Taiwan Initiative on 21st Century Trade; and the U.S.-Kenya Strategic Trade and Investment Partnership.

APHIS continued its comprehensive succession planning efforts, with special emphasis on developing the foreign service cadre and implementing an annual overseas rightsizing effort. The recruitment, assessment, and developmental process emphasized applicants' animal and plant health science backgrounds while also increasing new officers' knowledge of all APHIS mission areas, USDA partners such as FAS, and understanding of U.S. embassy protocols. The training program further develops Foreign Service Trainees' diplomatic, cross-cultural, and leadership skills. Through this succession effort, APHIS is augmenting its current overseas foreign service cadre, many of whom are eligible for retirement in the next 5 to 10 years. The succession effort helps ensure that APHIS has trained staff to support U.S. exports and overseas animal and plant health programs. As a result, APHIS has deployed foreign service personnel to Belgium, Dominican Republic, Egypt, Japan, Mexico, Panama, Philippines, South Africa, Thailand, and Vietnam. In 2024 foreign service personnel will be deployed to China, Senegal, and a second position in Japan. APHIS has also established the APHIS Foreign Service Fellowship Program to bring students with advanced degrees into the foreign service. The current class includes four students, two of whom graduated in Spring of 2023 and the remaining two will graduate in 2024. Upon graduation, the Fellows complete the foreign service trainee program and will be deployed to their overseas assignments.

Additionally, APHIS has established a workforce planning process to evaluate resource allocation overseas, assess which locations are optimal, and determine the necessary staffing required to support the Agency's mission, strengthening APHIS' ability to address SPS and other issues overseas in traditional and emerging markets. Through this process, APHIS identified Africa as an area of focus added a locally employed staff member in Kenya in 2023. APHIS will continue expanding its presence by including a foreign service officer in Kenya and adding two foreign service officers in Senegal in 2024.

ANIMAL WELFARE

Current Activities

The Agency ensures 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) through inspection, education, and enforcement efforts. Animal welfare activities include inspection of certain establishments that handle animals intended for research, exhibition, wholesale pet trade, or transported in commerce. During these inspections, APHIS reviews the animals, premises, facilities, husbandry practices, programs of veterinary care, records, and animal handling procedures. APHIS also administers the HPA, as amended, which prohibits the showing, sale, auction, exhibition, or transport of sore horses. Program personnel evaluate the performance of industry-licensed inspectors and conduct unannounced inspections at horse shows, exhibitions, sales, and auctions.

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. More than fifty years ago, in 1966, the Animal Welfare Act (AWA) was signed into law. Since that time, APHIS, acting through the Animal Care Program and its predecessors, has protected millions of regulated animals used in research, exhibition, and the pet trade as well as those transported in commerce. Each year, the program evolves to ensure licensing, inspection, permitting, outreach, and enforcement activities are responsive to current needs. In 2023, the program oversaw more than 16,000 licensees and registrants, an increase of nearly 3,000 additional registrants in part due to online pet transportation services.

Licensing and Inspection Activities

The AWA requires all facilities that use animals regulated under the Act to obtain a license or registration with APHIS. Prior to issuing a license, APHIS works closely with potential applicants to ensure they understand requirements, as well as conducts between one to three pre-licensing inspections to evaluate compliance prior to issuing a license. In 2023, APHIS conducted 789 pre-licensing inspections, and issued 618 new licenses. The Agency determines initial compliance by conducting unannounced inspections within three months of issuing the license. At the first unannounced inspection, 99 percent of these newly licensed facilities were substantially compliant, with no critical AWA citation found.

In November 2020, APHIS revised the licensing requirements for regulated entities under the AWA, requiring that all AWA licensees demonstrate compliance during an announced inspection before receiving a new, 3-year license. The Agency used a phased approach between November 2020 and September 2023 to transition all licensed entities to the new process. In support of this change, APHIS conducted 1,485 re-license inspections in 2023. Only facilities found to be in compliance were issued a 3-year license.

To assess ongoing compliance with the AWA, Agency officials examine and inspect animals, premises, facilities, husbandry practices, program of veterinary care, records, and animal handling procedures. Inspectors perform different types of inspections, including routine and focused unannounced. In 2023, APHIS conducted over 10,000 total inspections, which includes more than 6,700 routine unannounced inspections. Focused inspections are used to determine if a facility has addressed a previously identified or suspected issue directly related to an animal's health. In 2023, APHIS conducted 650 focused inspections, with 83 percent of the facilities to be substantially compliant, with no critical AWA citation found.

In 2023, APHIS finalized the Standards for Birds Not Bred for Use in Research rule. This regulation change became effective on August 21, 2023, for facilities with mammals that were already licensed under the AWA. Facilities that are not currently licensed under AWA have until February 21, 2024, to become compliant with the new welfare regulations. As of September 2023, APHIS had conducted inspections (announced and unannounced) at 292 facilities, housing more than 4,100 birds. The Agency will continue to inspect and assess compliance of facilities with regulated birds in 2024.

Permitting Activities

Since 2014, APHIS requires that dogs imported into the United States for resale are healthy, vaccinated, and are over six months of age, with limited exceptions. Importers are required to demonstrate proof of age, vaccination, and health of dogs imported for resale before the dogs enter the country by obtaining a permit. In 2023, APHIS issued 2,706 permits covering more than 7,000 dogs entering the United States. The Agency continues to collaborate with U.S. Customs and Border Protection (CBP) to address suspected incidents of importing underaged dogs and the illegal entry of dogs into the United States. The Agency has created procedures to refer problematic importers and those suspected of violating the AWA for investigation. Permitting has further facilitated the safe and timely entry of dogs into the United States, while making an impact on monitoring illegal live dog importation and holding those importers who do not follow the AWA accountable. Of the 8,561 dog applications reviewed for importation into the United States for the purposes of resale or adoption, approximately 13 percent of the dogs were found not in compliance and denied an import permit in 2023.

Registered Research Facilities Activities

APHIS collaborates with the National Institutes of Health and the Food and Drug Administration to help oversee the welfare of animals used in research. While each Agency has distinct authorities and areas of responsibility, we work together to ensure laboratory animals receive the level of care required under Federal regulations. All three Agencies require research facilities to have an Institutional Animal Care and Use Committee (IACUC). This oversight body is empowered to conduct facility inspections, investigate complaints of inhumane animal care, and approve or suspend animal research activity. Of the more than 16,000 entities regulated under the AWA in 2023, 939 were research facilities. In 2023, APHIS conducted more than 1,200 unannounced inspections of research facilities.

Since 2016, USDA's Agricultural Research Service (ARS) has voluntarily registered its animal research facilities with APHIS to promote animal welfare and has established fully functioning IACUCs. APHIS has registered 43 ARS research facilities under the AWA. APHIS monitors the health and welfare of animals housed at ARS facilities using our unannounced inspection process. In 2023, APHIS conducted 56 inspections at all ARS facility sites. Of those inspected in 2023, all but 2 facilities were found in compliance during the unannounced inspection process.

Outreach Activities

In 2023, the Agency hosted or assisted with over 20 live, virtual, or hybrid education and outreach events focused on animal welfare or various components of the AWA. Of note, these included a workshop with State level animal welfare officials, and animal transportation symposium, and a small pet welfare symposium to increase stakeholder education and outreach. Additionally, APHIS attended or presented at 17 veterinary, breeder, or other focused meetings or webinars to provide direct support to partners and customers. In total, the Agency was able to connect with over 3,600 individuals across 36 states and 8 countries in the animal welfare arena.

Enforcement Activities

Under the law, APHIS has the authority and obligation to confiscate any AWA-regulated animal that is in a condition of unrelieved suffering. APHIS works with State, federal and local partners to intervene quickly to ensure animals are relocated to a facility where they will receive humane care according to Federal standards. While confiscations are rare, in 2023 APHIS and partners confiscated or supported the surrender of more than 700 animals.

When APHIS inspectors discover conditions or records that are noncompliant with the regulations, the Agency may establish a deadline for corrective action and increase the frequency of unannounced inspections to determine whether the facility made the necessary modifications. Continued, serious noncompliance may warrant an investigation that can result in sanctions ranging from monetary penalties to suspension or revocation of the facility's license, after notice and an opportunity for a hearing.

In 2023, APHIS initiated 262 enforcement cases for alleged violations of the AWA, issued 214 official warnings, issued 15 pre-litigation settlements resulting in the collection of \$222,750 in stipulated penalties, obtained 19 administrative orders resulting in the assessment of \$35,700 in civil penalties, and suspended or revoked 16 licenses. In one case, working through the Office of the General Counsel and U.S. Department of Justice, APHIS obtained a Consent Decision and Order permanently revoking a dealer's AWA license. In another case, APHIS negotiated a pre-litigation settlement agreement in the amount of \$37,900 to resolve alleged violations of the AWA standards.

Regulatory Changes

In 2023, APHIS published an Advanced Notice of Proposed Rulemaking seeking input on potential changes to the AWA. In January 2023, the Agency requested input from the public on standards for handling captive wild and exotic animals at licensed exhibitors, training of personnel who handle wild and exotic animals at licensed facilities, and changes to all regulated animals' environments to promote their psychological well-being. The Agency received 214,246 comments. The Agency will consider these comments for possible future rulemaking.

2. Horse Protection

Since 1970, APHIS has enforced the Horse Protection Act (HPA), a federal law aimed at ending the cruel and inhumane practice of soring and preventing unfair competition by making it unlawful to show, sell, or transport sore horses. Soring is a practice in which people apply caustic chemicals and/or mechanical devices to a horse's pasterns,

which cause the horse to experience pain or distress while walking or moving. This practice is used primarily in training Tennessee Walking Horses, racking horses, and related breeds to produce a high stepping gait, which is prized at some competitive horse shows and other events. USDA conducts oversight of the program through evaluation of the performance of industry-licensed inspectors and conducting unannounced inspections at horse shows, exhibitions, sales, and auctions.

Inspection Activities

Under the HPA, the management of horse shows, exhibitions, sales, and auctions are responsible for ensuring that sore horses do not unfairly compete alongside horses that are not sore. If a horse is found to be sore, management has the responsibility of disqualifying them from participating in HPA-covered events. Management may use third-party inspectors that USDA-certified horse industry organizations (HIOs) train and license to inspect horses for compliance with the HPA. These third-party inspectors are known as Designated Qualified Persons (DQPs).

APHIS attends a select number of HPA-covered events each year to observe DQP performance and inspect horses for HPA compliance. Horse show attendance by the agency and related inspections continues to increase. In 2023, APHIS attended 80 horse events, inspected 2,740 horses, and of those inspected, identified 532 horses suspected of noncompliance with the HPA. The DQPs attended 210 HPA events and inspected 45,839 horse entries. In total, DQPs identified 830 HPA non-compliances, and management disqualified 786 entries.

APHIS took swabs of horse's legs to determine any use of prohibited substances, sampling 1,235 horses. APHIS continued to monitor for prohibited objects in horseshoes through digital radiograph imaging, implemented use of iris scan technology to verify horse identify, and pursued ultrasound technology and on-site testing of the swabs collected for prohibited substance testing.

APHIS also provided training to Agency inspectors to promote consistency in compliance inspections, increasing direct communication with management to ensure they receive updates on USDA's HPA disqualification list.

APHIS continues to provide event attendance related data, on the APHIS website:

https://www.aphis.usda.gov/aphis/ourfocus/animalwelfare/SA_HPA

Enforcement Activities

Regarding enforcement actions, APHIS worked with OGC to obtain an administrative order disqualifying 1 person from participating in activities regulated under the HPA for a period of 4 years, with a civil penalty of \$22,448. In addition, APHIS initiated 66 new cases for alleged violations of the HPA, 55 of which have been referred to OGC for administrative action, resulting in 15 administrative complaints. Additional actions, civil penalties and fines related to these cases are still pending at this time. APHIS will continue to post copies of enforcement records (such as initial decision and orders, default decisions, consent decisions, and administrative complaints) on its website: <https://www.aphis.usda.gov/aphis/ourfocus/animalwelfare/actions>.

Regulatory Changes

In 2023, APHIS proposed a rule to make substantive changes to strengthen current HPA regulations, including substantially increasing the degree of APHIS oversight of third-party inspectors. It would also remove all regulatory requirements for HIOs that operate shows and employ the third-party inspectors. The proposed changes would allow APHIS to screen, train and authorize qualified persons to conduct inspections at horse shows, horse exhibitions, horse sales, and horse auctions to ensure compliance with the HPA. APHIS will use comments received to determine the appropriate next regulatory action in 2024.

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 the information technology, space, and telecommunications infrastructure that gives Agency employees the tools they need to carry out their responsibilities. These programs also oversee and implement precautionary security measures for continued mission operations while ensuring the safety of APHIS

people and facilities. In addition, these programs support 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, cloud computing and cyber-security infrastructure that provides Agency employees with office automation tools, Internet access, and access to mission-critical information technology (IT) programs and administrative applications. APHIS maintains, enhances, and operates the IT infrastructure to support Agency business, conduct research and analysis, carry out administrative processes, record program activities, and deliver program services. AITI objectives and priorities are to continually improve sharing of information across the Agency; improve integrity and accessibility of information, processes, and resources available to assist programs in emergencies; and improve APHIS' cyber-security. APHIS uses AITI funding to maintain annual software license and hardware agreements, cloud services, and for regular life-cycle replacement of enterprise hardware.

The 2023 accomplishments listed below support these objectives.

License Renewal

APHIS supported approximately 9,700 users including contractors with license renewals so they can access and legally use the enterprise software in conducting business.

Availability

APHIS supported internal and external stakeholders by providing optimal levels of service. The Agency continued to maintain 99.97 percent availability for its key computing systems in 2023. The AITI program also maintained applications availability outside of the normal operational hours, on weekends, and holidays to ensure availability of systems.

Cloud Services

As a requirement of the Federal government's Data Center Optimization Initiative, APHIS has completed migration of all business applications from on-site data centers to the remote cloud servers. As of April 2019, APHIS closed all on-site Agency data centers. To date, APHIS remains in phase three of its cloud migration plan. This phase of the plan focuses on further program data consolidation and enabled the ongoing development of cloud applications for new program mission needs. The Agency planned to complete the consolidation phase of the plan in 2023, however, system complexities delayed its completion. As a result, APHIS is targeting 2025 to complete the consolidation phase, following the final migration of program data to the cloud.

APHIS continued utilizing the ability to telework as many employees elect to working remotely, in addition to working in physical office sites in 2023. As a result, cloud services have allowed the Agency to continue monitoring and accessing business applications remotely as well as offer seamless IT support for APHIS employees.

Cyber-Security

APHIS maintained the current version of National Institute of Standards and Technology and Federal Information Security Management Act testing standards to continue protecting our cyber security infrastructure and reducing vulnerabilities of our systems. APHIS also introduced an Agency led intrusion prevention security system called Checkpoint, further increasing security protection. In 2023, this security system continued its success in providing technological threat insight, allowing the Agency to detect and block attempts of unauthorized access to APHIS systems at a faster and more accurate rate.

Security Monitoring

The Agency annually renews licensing for the upgraded security monitoring system that tracks improper use of personally identifiable information data stored in the APHIS infrastructure. This action helps protect confidential information that could potentially identify a specific individual such as citizenship, legal status, gender, race and/or ethnicity. Renewing this software allows the ability to identify vulnerabilities in APHIS forms that contain bank account, credit card, driver license, passport, social security, and telephone numbers as well as date of birth details. The Agency's security branch continued to work with the human resources office to mitigate the identified vulnerabilities.

1. 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.

The POS program has the responsibility for the oversight of safety programs, physical security, and Agency-wide readiness in response to agricultural and all-hazard emergencies. The program utilizes a government-wide approach to agricultural health issues affecting the Nation through preparedness, personnel security, and an array of safety initiatives. This includes providing 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, visitors, and stakeholders from harm, acts of terrorism, and violence. In addition, this program supports part of the USDA's contribution to the U.S. Department of State's continuing implementation of the Capital Security Cost Sharing program, which provides safe and secure workplaces for all government employees located overseas.

The POS program provides numerous security trainings to Agency employees. In 2023, the program provided training to almost 600 employees, including seminars relating to active shooter response, situational awareness, de-escalation, and travel safety. The program also provided multiple security briefings for employees who work along the U.S.-Mexico border.

APHIS investigates, educates, assesses, and mitigates internal and external security threats directed at agency facilities, programs, and personnel. For example, APHIS focuses on employee security at or near the Mexican border, investigating threats and responding to requests for protection for APHIS employees who enforce regulations in this challenging environment. In 2023, APHIS investigated 51 external threats to its employees and 32 workplace violence incidents. In addition, a revision was made to the APHIS Directive: *4340.1 Workplace Violence Prevention and Response Program*. The goal of this revision is to separate workplace violence prevention and workplace harassment related issues. The revisions provide a clearer understanding on workplace violence processes and expand the definitions and employee reporting responsibilities. The Directive also added instructions for employees on how to deal with threats of suicide. The Directive is currently in its final review stage and will be issued in 2024.

The Homeland Security Presidential Directive-12 (HSPD-12) and Interagency Security Committee (ISC) directives create the standard for secure and reliable forms of identification for facility and network access and compliance regarding physical security at Federal facilities. In 2023, the POS program completed physical security assessments at 27 facilities using the updated ISC criteria and USDA reporting format. As a result, the POS program provided security upgrades and repairs to 46 facilities. In addition, the POS program is also responsible for issuing, activating, or updating approximately 13,059 personal identification verification cards to USDA/APHIS and other federal personnel including contractors.

APHIS security specialists investigate threats and respond to requests for protection throughout the country for APHIS veterinarians and inspectors who are enforcing regulations in challenging environments. In support of safety precautions for APHIS employees who enforce the Animal Welfare Act (AWA) and Horse Protection Act (HPA), the POS program provided 38 inspections of regulated AWA entities, and 114 HPA events.

The program also works with other USDA agencies, the U.S. Department of Justice, U.S. Department of Homeland Security, the U.S. Department of State, and local law enforcement agencies to ensure that the appropriate

organization takes the lead, contributes to program costs, and integrates security where employees are co-located overseas. APHIS maintains a presence overseas to facilitate agricultural trade and monitor pest and disease threats. The Security Embassy Construction Counterterrorism Act's Capital Security Cost Sharing Program requires the Agency to help fund the construction of new Embassy compounds based on the number of authorized positions, and APHIS provides a portion of the funds in the Physical and Operational Security line item to the U.S. Department of State for this cost. In 2023, APHIS had approximately 300 full-time employees based in countries around the world. This program provides safe and secure diplomatic facilities for the Agency's overseas personnel.

2. Rental and Department of Homeland Security Payments

This account supports the Agency's costs associated with General Services Administration (GSA) leased facilities. The account funds approximately 215 locations associated with GSA leases and Department of Homeland Security (DHS) payments. The funding allows APHIS programs to continue carrying out activities that safeguard the health and value of U.S. agriculture and natural resources, including surveillance for animal and plant pests and diseases, pest and disease eradication programs, diagnostic and methods development work at laboratories, animal welfare inspections, and wildlife damage management activities, without diverting fiscal resources from operations to cover these costs. APHIS continues efforts to reduce and consolidate its office spaces. In 2023 APHIS increased space by 6,066 rentable square feet (RSF), with a reduction of 21,788 RSF in 2022. This equates to a 0.46 percent reduction in space change over the past two fiscal years.

This account also funds the DHS/Federal Protective Service (FPS) basic and building specific security costs. In 2020, DHS/FPS began implementing their modified security billing process that was fully implemented by the end of 2022. The current security billing process uses the previous five years of actual security costs to derive an average basic security assessment billed to the agencies annually. These basic security costs, which include costs such as law enforcement activities and security alarm monitoring and dispatch, are projected to decrease by six percent in 2024, and increase by five percent in 2025. In addition to the basic security costs, agencies are billed security costs for building specific services required to implement and maintain security requirements in accordance with standards set by the Interagency Security Committee, including contract guards and security equipment. Final costs for 2024 and 2025, for these specific security costs are not yet finalized, but DHS/FPS has indicated that APHIS should anticipate an estimated 10 percent rate increase from current year pricing for these services. The increase is due to inflationary increases in costs for labor, supplies, and material.

EMERGENCY FUNDED PROGRAMS

Selected Examples of Recent Progress in Emergency Funded Programs:

1. African Swine Fever

African Swine Fever (ASF) is a highly contagious and deadly viral disease of domestic and wild pigs. There is no treatment or vaccine available in the United States. Currently, the only way to stop it is to depopulate all affected or exposed swine herds. Early detection is the key to controlling, containing, and eliminating ASF. While ASF has never been found in the United States and does not threaten public health, an introduction would devastate U.S. pork producers, their communities, and the economy, as well as the security of the pork supply. An ASF introduction could result in \$75 billion in losses to the industry, including a cut of 60,000 jobs, and pork prices could plummet by half and stay low for 3 years, with impacts for up to 10 years (based on a recent Iowa State University working paper).

Protecting the health of domestic livestock herds to ensure profitability and supporting trade is a high priority for the Department. USDA confirmed ASF in the Dominican Republic (DR) in July 2021, and in Haiti in September 2021. In September 2021, APHIS received \$500 million in emergency transfer funds to assist with the response to these detections, establish a protection zone in Puerto Rico (PR) and the U.S. Virgin Islands (USVI), and take actions to prevent the introduction of the disease in the United States. Assisting with an eradication program in the DR and Haiti while simultaneously bolstering domestic efforts will provide the best protection against further ASF spread in the region.

Domestic Prevention Efforts

APHIS has numerous interlocking safeguards in place to prevent ASF from entering the United States and has been working closely with States and industry to develop and refine plans in case of an outbreak. These safeguards include a surveillance program to rapidly detect ASF and serve as an early warning system; increased testing capabilities through the National Animal Health Laboratory Network to handle large volumes of samples; enhanced work with the Department of Homeland Security's U.S. Customs and Border Protection (CBP) at ports of entry targeting cargo, passengers and products from ASF-affected countries; increased detector dog teams to sniff out illegal products at key U.S. commercial sea and airports; and added import restrictions on pork and pork products from ASF-affected countries. APHIS' focus on domestic preparedness emphasizes surveillance and diagnostics, traceability, garbage feeding controls, depopulation tools and methods, and enhancing pre-clearance and arrival inspections. These priorities were identified through direct discussions with the industry and States and in close collaboration with the National Pork Producers Council. Since August 2, 2021, APHIS has tested 7,963 samples from higher risk domestic herds and 28,727 case-compatible samples from veterinary diagnostic laboratories and slaughter facilities in the contiguous United States for ASF. In 2023, APHIS enhanced surveillance efforts by identifying opportunities to boost engagement within the show swine industry through partnerships with the National Pork Board and Ohio State University. APHIS continued to conduct ASF outreach activities through the "Protect Our Pigs" campaign that was launched in 2022. The campaign raises awareness around biosecurity best practices for U.S. veterinarians, pork producers, and pig owners ensuring that pig owners and the public have access to actionable information and resources.

APHIS continued to increase the National Veterinary Stockpile with depopulation supplies as well as purchased 14 incinerators to boost preparedness and response capabilities. Additionally, APHIS revised and updated guidance documents within the ASF Response Plan which provides strategic guidance before and during the event of an ASF outbreak for responders across all levels. APHIS also continued to conduct antigen- and antibody-based surveillance for ASF in feral swine in Florida, Georgia, Louisiana, and Texas. These States are considered the highest risk for an ASF introduction from Hispaniola due to the frequent movement of people and cargo, as well as known presence of feral swine in the State. In 2023, the Agency tested more than 2,900 samples for ASF from feral swine in these four States. Also, APHIS initiated ASF surveillance in an additional six States in May 2023, sampling an additional 1,059 feral swine in high-risk counties in Alabama, California, Mississippi, Oklahoma, South Carolina, and Tennessee that have ongoing feral swine operations.

APHIS continued to enforce an ASF Protection Zone in PR and the USVI under the parameters outlined by the World Organisation for Animal Health in 2023. This Protection Zone, along with existing comprehensive import restrictions and safeguards, strengthen the Agency's ability to protect the U.S. swine herd while avoiding trade restrictions by countries that recognize the Protection Zone if ASF is detected in either PR or the USVI. APHIS conducts an ongoing pre-departure inspection program in PR to prevent pests and diseases from entering the continental United States in passenger baggage and cargo and works with CBP to conduct similar inspections in the USVI. To support the ASF Protection Zone, APHIS enhanced pre-departure activities by adding temporary staff, canine detector teams, and x-ray machines, as well as conducting training for staff in inspecting for animal products (as the focus in PR had previously been plant pests and diseases). APHIS established a collective partnership with the United States Postal Inspection Service to expand pre-departure mail inspection in Puerto Rico, conducting 23 joint pilot operations resulting in the seizure of 546 pounds of prohibited pork products. The Agency conducted 2,202 Smuggling Interdiction and Trade Compliance (SITC) market surveys in the Protection Zone to identify potential regulated or prohibited product and ensure its removal from the marketplace. The SITC market surveys resulted in 42 seizures (38 of the products originating from China; 2 products originating from Thailand; 1 product originating from Laos; and 1 product originating from Vietnam), weighing a total of 300 pounds in 2023. SITC also conducts trade verification activities at express courier locations in the continental United States as a backstop to inspection activities in the protection zone.

APHIS conducts outreach activities throughout the protection zone and the United States to ensure awareness regarding movement restrictions on pork and pork products. In 2023, APHIS conducted pre-departure public outreach activities, including advertisements, a media tour, and the "Pigs Don't Fly" campaign, to raise awareness on preventing the movement of pork and pork products from the Protection Zone into the United States. Advertisements were broadcasted across the top 25 busiest airports in the United States, strategically placing advertisements in eight airports where international travelers are most likely to transport pork products. Additionally, APHIS increased outreach efforts by broadcasting radio, digital, and print advertisements in PR and the USVI to raise awareness surrounding the risk of carrying and shipping pork products to the United States. These

activities will continue in 2024 and will increase in prevalence around holiday periods when pork and pork product movement are highest.

Illegal boat landings pose a potential pathway for ASF as these landings can facilitate the illegal introduction of pork products into the Protection Zone. In 2023, APHIS responded to 125 reported illegal boat landings within the Protection Zone, recovering a total of 759 pounds of animal products. When inspectors find prohibited pork products, they dispose of them in accordance with approved safeguarding practices.

Since the establishment of the protection zone, APHIS has intercepted and destroyed approximately 149,000 pounds (1,000 pounds reported in 2022) of pork and pork products in the zone--products that otherwise would have reached the U.S. mainland, threatening swine production in the Continental United States. In addition, APHIS staff removed over 4,897 feral swine in PR and the USVI. APHIS sampled 3,029 feral swine in PR and continues to remove feral swine as well as test for possible ASF introductions. APHIS maintained the Protection Zone by enhancing surveillance efforts by conducting 2,848 on-farm and 2,476 slaughter samples from over 300 premises in PR.

International Efforts

In 2023, APHIS assisted the DR and Haiti in their eradication and response efforts, including providing advice and assistance on surveillance, quarantine, depopulation, and disposal methods; providing testing support; and bolstering in-country testing capacity. In the DR, APHIS supported ASF control and eradication efforts through on-the-ground technical assistance and providing funding to nongovernmental organizations that assisted with operations. To increase producer cooperation and more timely disease reporting, the response effort includes indemnity payments for depopulated swine. APHIS and the DR Ministry of Agriculture signed a Memorandum of Understanding establishing a framework for control and eradication, including an enhanced surveillance strategy to identify infected farms, depopulate swine from affected areas, and clean and disinfect affected premises. To implement these activities, the Agency established an incident command structure to coordinate with the DR's incident command team.

Beginning in August 2022, APHIS deployed detector dogs in the DR to improve predeparture activities related to the inspection and seizure of swine products. APHIS has 21 dogs working across 4 of the major airports in the DR which have led to the detection, confiscation, and incineration of more than 3,500 pounds of pork products in 2023. To ensure that pork products are disposed of properly, APHIS assisted with installing incinerators at two DR airports considered high risk for the transport of pork products in 2023. APHIS is planning to install incinerators in the DR at three additional high-risk airports and one maritime port as well as nine incinerators at the border between the DR and Haiti and marinas in 2024. APHIS also conducts outreach activities as a part of its international efforts where APHIS leveraged radio, traditional, digital, and social media outlets to discourage DR residents from travelling to the United States with pork products.

Further, APHIS is enhancing regional surveillance in the Caribbean to ensure the disease will be detected outside of the DR and Haiti, as of the end of 2023 there were no detections of ASF. The Agency also coordinated, organized, and communicated enhanced feral swine removal operations in the Caribbean to prevent the introduction and spread of the disease.

2. Bovine Tuberculosis

In 2023, APHIS obligated \$1.5 million in Commodity Credit Corporation funds (CCC) on tuberculosis (TB) eradication activities. Through slaughter surveillance, TB was detected in four cattle in 2023. Two of the cattle traced back to Michigan, and one to South Dakota, which traced back to an original herd but did not result in identifying a TB-affected herd. The fourth detection was in Nebraska which was traced back to an origin herd in Canada that was later confirmed to be TB-affected. APHIS, in cooperation with State animal health agencies, continued to manage six herds under test-and-remove protocols in 2023. APHIS used CCC funds to conduct test-and-remove protocols and depopulation activities in accordance with each herd's management plan. APHIS uses a mix of depopulation and test-and-removal strategies to address bovine TB-affected herds. These strategies consider herd size, potential indemnity costs, State and owner preferences, genetics, and the probability of removing infection.

The detection of TB-affected cattle and herds demonstrates the effectiveness of APHIS' surveillance system. To respond to TB detections, APHIS works closely with State animal health officials to quickly identify any cattle that may have come into contact with the infected herds and conduct thorough trace back investigations. In addition, the States work closely with the herd owners involved, as well as the State dairy industry, to ensure the disease is quickly contained, and affected owners can return to normal business practices as soon as possible.

3. Highly Pathogenic Avian Influenza

In 2023, APHIS obligated approximately \$259 million in emergency funding to address nationwide detections of highly pathogenic avian influenza (HPAI). HPAI is an internationally reportable disease when in commercial flocks. It is a serious disease that requires rapid response because it is highly contagious, often fatal to poultry, and can spread rapidly from flock to flock, causing a loss of farm income and potential negative trade impacts.

On February 8, 2022, APHIS confirmed the presence of HPAI in a commercial turkey flock in Dubois County, Indiana. This was the first confirmed case of HPAI in U.S. commercial poultry since 2020. As of September 30, 2023, APHIS confirmed the presence of HPAI in 840 flocks in 47 States affecting 59 million birds. Of the affected flocks, 515 were backyard flocks and 325 were commercial flocks. As of September 30, 2023, there have been more than 7,237 wild bird detections among at least 154 species across 49 States and Washington, DC. The last HPAI confirmation in 2023, was made on September 15, 2023, at a live bird market in New Jersey affecting 520 birds. Additional detections continue to occur during the wild bird fall migration in early 2024. These funds also supported sampling of wild birds for HPAI. In 2023, the Agency coordinated the collection and laboratory analysis of more than 31,000 wild bird samples from wild waterfowl in priority watersheds in all 4 flyways. Genetic sequencing of these samples revealed multiple introductions of HPAI viruses from outside the United States and helped inform whether poultry outbreaks resulted from point source introductions or lateral farm-to-farm spread.

As part of this emergency funding, APHIS initiated a pilot project to establish Wildlife Biosecurity Assessments in four states in the Midwest (Iowa, Minnesota, North Dakota, and South Dakota) to evaluate the accessibility of wildlife to domestic poultry populations. These assessments have been implemented in all four states with multiple goals including identifying prevalence of wildlife in close proximity to poultry facilities, identifying physical repairs and exclusions needed to stop all interaction between wildlife and domestic poultry, identifying habitat management and other technical assistance recommendations that could be implemented to reduce attractiveness to wildlife, and conducting some limited control of wildlife in locations that have excessive wildlife in and around poultry barns.

The United States has the strongest AI surveillance program in the world, and APHIS has been working with its partners to respond to detections by following Federal and State HPAI response plans, which include implementing quarantine restrictions, depopulating affected flocks, eliminating the virus from affected premises, and conducting surveillance in surrounding areas. APHIS' approach includes ensuring appropriate responses to detections and education through enhanced biosecurity outreach to prevent further spread from wild birds to poultry. The Agency's goal is to quickly contain and eradicate the disease, protecting our poultry industry and the American consumer. Most countries continue to act in accordance with our bilateral agreements and their own regulations. APHIS continues to provide HPAI updates on counties that have completed their restriction periods to our trade partners. In addition, the Agency continues to work with trade partners to reduce restrictions but is encountering difficulties due to the scope of the outbreak.

FARM BILL PROGRAMS

Selected Examples of Recent Progress in Farm Bill Programs:

1. Farm Bill – Plant Protection Act, Section 7721

The Agricultural Act of 2014 consolidated two of APHIS' Farm Bill programs under Section 10007: Plant Pest and Disease Management and Disaster Prevention Program and the National Clean Plant Network (NCPN). This authority was codified in Section 7721 of the Plant Protection Act (PPA). Through the program, APHIS funds projects that enhance our ability to safeguard agriculture and facilitate safe agricultural trade. Cooperators nationwide use this funding to strengthen pest exclusion systems, optimize domestic pest management and eradication programs, keep commodities moving in commerce without spreading pests and diseases, and expand market opportunities abroad for U.S. products. This work is critical to the USDA mission on many fronts, helping American agriculture thrive, across the country and around the world. Since 2009, USDA has supported more than

5,260 projects and provided more than \$852 million in funding through the Plant Pest and Disease Management and Disaster Prevention Program, including projects funded in 2023. Collectively, these projects allow USDA and its cooperators to strengthen and safeguard the nation's agricultural infrastructure against invasive plant pest and diseases. In addition, the NCPN provides reliable sources of pathogen-free planting stock of high-value specialty crops. Since 2009, the NCPN, through its agreements program, has provided over \$80 million for 34 clean plant programs plus supporting initiatives in 18 States and Puerto Rico. The NCPN supports commodities including fruit trees, grapes, citrus, berries, hops, sweet potato, and roses.

Plant Pest and Disease Management

APHIS and cooperators have identified six major strategic goal areas (the first with two sub-goals) to implement Plant Pest and Disease Management efforts: 1a) enhancing plant pest/disease analysis; 1b) enhancing plant pest survey; 2) targeting domestic inspection activities at vulnerable points; 3) enhancing pest identification tools and technology; 4) safeguarding nursery production; 5) conducting targeted outreach and education; and 6) enhancing mitigation and rapid response capabilities. The program funded 381 overarching projects in 2023, supporting 465 cooperative agreements, interagency agreements and internal projects. The agreements support activities conducted by a variety of Federal, State, academic, Tribal, and private entity stakeholders.

Enhance Plant Pest/Disease Analysis, Goal 1a

Under this goal, APHIS supports projects that compile, synthesize, or evaluate data to inform or enhance risk and pathway analysis, surveillance methodology, or resource prioritization. Examples include the development of analytical models to identify and prioritize exotic pests for survey and response and improving risk modeling and monitoring for invasive fruit pests. In 2023 the program supported a project to develop a biosecurity framework for imported seeds that will prevent the introduction of seed borne and seed transmitted pathogens, as well as other pests of phytosanitary concern. The project resulted in development of a program for testing imported curcubit seeds for cucumber green mosaic mottle virus, with over 64,000 seed lots tested using this program. Overall, in 2023, the program provided approximately \$2 million for 15 agreements and internal projects in this goal area.

Enhance Plant Pest Survey, Goal 1b

Under this goal, APHIS supports surveys for multiple, high-risk pests not known to be established in the United States and pests of concern to cooperators. These surveys protect and help small growers and nursery owners avoid control costs through a more rapid and thorough detection of pests that threaten their operations. 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, State, and Tribal cooperators.

In 2023, the National Survey Supply Program distributed nearly 3.9 million plant pest trap and lure units to 50 States and 3 Territories, including 143 different products to support the various detection activities and surveys that APHIS and State cooperators conduct. The surveys supported in this goal area complement those conducted under the Pest Detection program (Cooperative Agricultural Pest Survey) and have expanded the number and scope of pest survey activities across the United States, as well as help demonstrate our country's freedom from certain high-risk pests. In 2023, APHIS supported surveys in 49 States and four Territories. These included commodity surveys of apple, grape, stone fruit, palm, solanaceous, small fruit and berries, and other orchard crops, as well as surveys for defoliators, exotic woodborers, bark beetles and other forest pests, cyst nematodes, mollusks, and pathway surveys covering multiple agricultural systems. Overall, the program provided approximately \$14.5 million for 188 agreements and internal projects in this goal area in 2023.

Target Domestic Inspection Activities at Vulnerable Points, Goal 2

Under this goal, APHIS supports domestic inspection activities at high-risk sites (e.g., warehouses and parcel facilities), inspects regulated articles moving interstate, and uses trained canine detection teams to improve detection capabilities. Developing these cooperative efforts with State agriculture regulatory agencies helps minimize impacts to producers and distributors of agricultural commodities. In 2023, the program continued to support canine team efforts in California, where 13 teams worked at over 200 facilities including Express Couriers and the U.S. Postal Service in 32 of 58 counties in the State; and in Florida, where 5 teams work at Express Couriers in 8 counties, and 1 team supports Giant African Snail detection in 3 counties. With their keen sense of smell, dogs can detect hidden agricultural products at an accuracy rate higher than 85 percent. The program uses canine teams to enhance capacity for early detection and better response to exotic pests found during surveys; increases liaisons between State and

Federal cooperators by reviewing, developing, and implementing educational programs; provides additional resources at high-risk areas within the State for inspection; and benefits inspections at parcel service locations to enhance interdiction efforts. Overall, the program provided approximately \$5.7 million for 7 agreements and internal projects in this goal area in 2023.

Enhance Pest Identification Tools and Technology, Goal 3

Under this goal, APHIS supports the ongoing development of improvements in pest identification and detection. This includes improved identification capacity and taxonomic understanding of groups of organisms, taxonomic support for surveys targeting high consequence pests, and the development of pest detection technology. Through this goal area, the program supported a project to provide molecular diagnostic tools to determine the origin of northern giant hornet (NGH) in North America and identify possible routes of introduction and spread; differentiate various subspecies of NGH; separate NGH from closely related *Vespa* species; and provide eDNA analysis of NGH bee kills, food sources, and fecal pellets as needed for eradication efforts. These advances in the molecular diagnostic tools are critical to the NGH eradication efforts in the Pacific Northwest. The program provided approximately \$5 million for 54 agreements and internal projects in support of this goal in 2023.

Safeguard Nursery Production, Goal 4

Under this goal, APHIS supports projects to develop science-based best management practices and risk mitigation practices to exclude, contain, and control regulated pests from the nursery production chain, and to develop and harmonize audit-based nursery certification programs. These activities help small producers and distributors establish best management practices for mitigating pest risks, reducing operational costs, and enhancing the value of nursery stock they produce. Examples of projects funded in 2023 include development of integrated pest management methods and regulatory treatment tools to suppress and slow the spread of box tree moth, including evaluation of trap and lure efficacy and the effectiveness of mating disruption as an eradication tool. Funding was also provided to survey and test all certified blocks of *Prunus* spp. within Washington State to improve the practices of the nursery industry to best identify and remove little cherry disease (LCD) infected plant material from mother blocks (scion and rootstock). This project assesses the incidence of the causal agents of LCD and developing updated Standard Operating Procedures for LCD surveillance and certification, to boost confidence among nursery producers and consumers that healthy material is available to replace production orchards infected with LCD. The program provided approximately \$2 million for 17 agreements and internal projects in this goal area in 2022.

Conduct Targeted Outreach and Education, Goal 5

Under this goal, APHIS works to engage the public in early detection efforts by strengthening existing volunteer networks. APHIS emphasizes efforts that can lead to behavior changes among the public and the regulated community to prevent the introduction or spread of high-consequence pests into and throughout the United States. 2023 projects in this goal area included projects addressing capacity needs in Native American Tribes by enhancing awareness and knowledge to prevent the introduction and spread of high consequence pests into and throughout Tribal lands in Maine, Washington, and Wisconsin. Several projects continued in 2023 including nationwide campaigns raising awareness of invasive species, such as the PlayCleanGo Campaign to stop the spread of invasive species through recreational activities, the Hungry Pests campaign that educates and engages the public on preventing the spread of invasive pests, a variety of projects in multiple States targeting awareness of forest pest outreach, northern giant (formerly referred to as Asian giant hornet) community outreach and education, and multiple outreach campaigns for spotted lanternfly (SLF). Overall, the program provided \$4.1 million for 53 agreements and internal projects in this goal area in 2023.

Enhance Mitigation and Rapid Response Capabilities, Goal 6

Under the goal of enhancing mitigation capabilities, APHIS provides technical assistance prior to, during, and immediately following a plant pest outbreak, develops new mitigation tools and strategies, and increases emergency preparedness through the development of New Pest Response Guidelines and Incident Command System training. Some of these efforts provide continued support for developing new methods or treatments for economically significant pests including SLF response, fruit fly, wood boring and bark beetles, snails, and coffee berry borer, among others. These efforts also support the development of biological control projects for pests including Brazilian peppertree, spotted wing drosophila, box tree moth, roseau cane scale, and emerald ash borer, among others. Under

this goal area, the program also supported rapid response to a variety of pest and disease outbreaks, including Oriental, Mexican, and *Zeugodacus tau* fruit fly outbreaks in California and Coconut Rhinoceros Beetle in Hawaii. APHIS also supported the nationwide effort to survey for and control SLF throughout the East Coast, including Delaware, Maryland, North Carolina, New York, Ohio, Pennsylvania, Virginia, and West Virginia, and Box Tree Moth monitoring and regulation activities in Massachusetts, Michigan, New York, and Ohio. Overall, the program provided \$28.3 million for 127 agreements and internal projects in this goal area in 2023.

National Clean Plant Network (NCPN)

In 2023, APHIS used \$7.75 million in PPA 7721 funds to provide NCPN support to qualified clean plant centers through a cooperative agreements program. The application process allowed stakeholders to offer input into projects proposed for funding through pre-proposals, which are designed to help clean plant centers prioritize and harmonize their resourcing requests. As a result, APHIS entered into agreements for 28 projects with clean plant centers and supporting initiatives in 16 States and Puerto Rico. The clean plant centers that receive NCPN funding use the resources to: 1) diagnose for harmful pathogens that cause disease in covered specialty crops; 2) apply therapeutic measures to eliminate these pathogens; 3) establish plantings of clean plant ‘starter’ material and make this material available to nurseries and growers; 4) work with nurseries and growers in education/outreach programs to communicate the economic value to industry of using clean nursery stock; 5) advance quality management initiatives to further strengthen confidence in program processes and products, and 6) engage in the process of establishing and governing a network of collaborative clean plant centers. These activities result in clean plant centers providing additional sources of healthy planting stock for fruit trees, grapes, citrus, berries, and hops, sweet potato, and roses. This healthy planting stock is 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.

Annual deliverables from clean plant centers include:

Fruit Trees – Maintain approximately 900 clean fruit tree accessions in foundations (collections of pathogen-tested plant materials) that have delivered about 60,000 cuttings and 320,000 seeds on an annual basis.

Grapes – Maintain approximately 1,000 selections of clean grapevine accessions in foundations and distribute more than 60,000 clean grape-wood cuttings, buds, plants, or seed to industry per year.

Berries – Maintain 350 accessions in tissue culture and screenhouse foundations. Annual nursery sales of 800 million plants in California and 200 million in Florida are from plants originally sourced from NCPN centers.

Citrus – Maintain approximately 2,700 clean citrus tree accessions in foundations and deliver about 575,000 units of budwood and seed annually. Almost all commercial citrus nursery stock is derived from NCPN material.

Hops – Maintain 50 clean hop selections in foundations that are used to accommodate about 30 percent of the world’s need for clean hops. The program distributes about 930 propagative units to industry annually; each unit can be expanded rapidly to provide thousands of plants for planting.

Sweet potato – Maintain about 440 sweet potato accessions and deliver over 930,000 clean plant units including seed, slips, plants, and tissue culture plant annually.

Roses – Maintain over 850 rose selections in foundations and associated collections and distribute over 80,000 clean scion and rootstock cuttings annually.

2. Farm Bill – Animal Disease Prevention and Management, Section 12101

The Animal Disease Prevention and Management Program (ADPMP) was authorized by Section 12101 of the Agriculture Improvement Act of 2018 (P.L. 115-334). It created two new animal health programs - the National Animal Disease Preparedness and Response Program (NADPRP) and the National Animal Vaccine and Veterinary Countermeasures Bank (NAVVCB) - and expanded on the National Animal Health Laboratory Network (NAHLN). The bill provided the first four years of funding (\$120 million for 2019 to 2022) upfront as no-year funding, and provides \$30 million in mandatory funding each year thereafter, beginning in 2023. APHIS has the discretion to distribute the total funding among the three programs, provided that NADPRP receive at least \$5 million per year

through 2022, and \$18 million per year beginning in 2023. The no-year funding provision provides APHIS with the flexibility to allocate funding in the most effective manner to safeguard American agriculture. In 2023, the Agency obligated a combined \$39.2 million of Farm Bill funds for the 3 animal health programs. For the NAVVCB, Congress directed the Agency to prioritize the acquisition of sufficient quantities of foot-and-mouth disease (FMD) vaccine antigen concentrate. The funds provided to the NAHLN in the Farm Bill are in addition to appropriated funds that support the NAHLN. These three programs are critical in supporting APHIS' efforts to protect the health and improve the quality, productivity, and economic viability of U.S. livestock, helping farmers and ranchers provide high-quality agricultural products to domestic and international consumers. The NAHLN Coordinating Council, the NADPRP Consultation Board, and other leaders in animal health and laboratory diagnostics provide recommendations for the types of projects that are necessary and are targeted to where they can make the most impact.

The NADPRP addresses the increasing risk of the introduction and spread within the United States of animal pests and diseases affecting the economic interests of the U.S. livestock and related industries, including the maintenance and expansion of export markets. APHIS offers annual competitive funding opportunities and enters into cooperative agreements with States, universities, industry groups, and other entities to carry out high-value projects to improve animal disease emergency preparedness efforts. The Agency consults with stakeholders to identify annual funding priority topics, nominate proposal reviewers, and provide input on funding recommendations. This consultation is accomplished through the NADPRP Consultation Board and through interactions with APHIS and stakeholders at livestock sector meetings, and meetings with State animal health officials. The NADPRP Consultation Board is comprised of 16 animal health leaders who represent the program's eligible entities, including State animal health officials, livestock industry organizations, universities, and Tribal organizations. In March 2023, APHIS awarded \$16.4 million to 64 projects led by 42 States, Tribes, land-grant universities, and industry organizations to enhance our nation's ability to rapidly respond to and control animal disease outbreaks. This includes 4 projects totaling \$550,000 awarded to Tribal partners. These projects collectively help States and Tribes develop and practice plans to quickly control disease outbreaks, train responders to perform critical animal disease outbreak activities, increase producers' use of biosecurity practices, and educate livestock owners on preventing disease, and support animal movement decisions in animal disease outbreaks, among others. Since 2019, APHIS has provided over \$40 million to support more than 180 new animal disease prevention and preparedness projects.

The NAVVCB has significantly increased the U.S. stockpile of FMD vaccine, its top priority, and provides the flexibility to stockpile other countermeasures and diagnostics to serve as an insurance policy in case of an outbreak of a high-consequence foreign animal disease. APHIS awarded contracts to private companies to help supply the vaccine to the Bank. While APHIS is confident in its ability to exclude FMD from the country, vaccines are an important part of the Agency's strategy to eradicate the disease and can be a critical tool to allow America's farmers and ranchers to recover quickly should the disease be introduced into the United States. The use of vaccines will depend on the circumstances of the incursion and will require careful coordination with affected animal industries. Vaccination helps control the spread of infection by reducing the amount of virus shed by animals and controlling clinical signs of illness. While an outbreak would temporarily disrupt international markets, vaccination would allow animals to move through domestic production channels. APHIS will leverage the infrastructure of the National Veterinary Stockpile for the distribution of vaccine, should it be needed. In 2023, APHIS invested an additional \$14.3 million in FMD vaccine antigen concentrate to bolster existing reserves and incorporate one new antigen. In addition, the Agency announced and closed a sources sought notice for market research into available diagnostic products for African Swine Fever, Classical Swine Fever, and FMD. Subject-matter experts are reviewing submissions for 63 distinct products.

The NAHLN is a nationally coordinated network and partnership of Federal, State, and university-associated animal health laboratories that provide animal health diagnostic testing to detect endemic and high-consequence pathogens in the nation's food animals. This effort is vital to protecting animal health, public health, and the U.S. food supply. The NAHLN laboratories serve as an early warning system for detecting animal diseases and pathogens, and they provide surge capacity during an outbreak and recovery response. Rapidly diagnosing and detecting the extent of an outbreak plays a key role in limiting the impact on producers. In 2023, APHIS awarded \$2.29 million to support 14 projects to enhance the early detection of high-consequence animal diseases through increased laboratory capacity and stockpiling and improving information technology capabilities through the NAHLN. In addition, APHIS provided \$5.25 million to the NAHLN laboratories in noncompetitive funding for operational support and supported 30 projects that had continued from 2022.

3. Farm Bill – Feral Swine Eradication and Control Pilot Program, Section 2408

The Feral Swine Eradication and Control Pilot Program (FSCP) was authorized by Section 2408 of the Agriculture Improvement Act of 2018 (P.L. 115-334). The Farm Bill provided \$75 million in mandatory funding for fiscal years 2019 through 2023. This funding was equally divided between the Natural Resources Conservation Service (NRCS) and APHIS to carry out the pilot program. The objective of FSCP was to pilot collaborative efforts that address the threat feral swine pose to agriculture, native ecosystems, and human and animal health. Feral swine are an invasive species that damage agricultural crops, degrade natural systems, and carry diseases that can be passed on to livestock and humans. Feral swine occur across the United States, but the heaviest concentrations are found in sections of the Southeastern region and stretch as far west as Texas and Oklahoma with high populations also found in California.

Pilot areas were identified collaboratively by NRCS and APHIS personnel in consultation with State technical committees. FSCP was delivered within pilot areas through three coordinated components. First, APHIS worked directly to control feral swine populations. Second, NRCS provided funding to partner organizations to provide technical and financial assistance to agricultural producers for on-farm trapping and other means of feral swine control. Partner organizations also provided other services including pre- and post-project damage assessments and other means to assess progress in control efforts. Finally, NRCS provided technical and financial assistance for restoration of damage caused by feral swine after those populations were controlled.

Delivery of FSCP was prioritized to those States that have the highest and most damaging feral swine populations. While feral swine do have a wide distribution, APHIS has an existing program for controlling the species that has proved effective in addressing emerging populations in conjunction with States. The pilot program built upon and expanded work already underway by APHIS' National Feral Swine Damage Management Program to remove feral swine while reducing damages in areas with high population densities in partnership with local government, the private sector, industry, and academia.

USDA funded 34 projects in 12 States (Alabama, Arkansas, Florida, Georgia, Hawaii, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, and Texas) with funds provided by the 2018 Farm Bill. Projects lasted for one to five years, and all projects concluded at the end of 2023. The Agency collected data on the types and number of agriculture and property resources protected, as well as damage data to those resources, as part of the effort to best determine the economic impacts of feral swine and various control methods. Analysis of this data is underway and will be completed in 2024.

Table APHIS-17. Summary of Key 2023 Emergency Funded Programs/Farm Bill Activities (In dollars)

Emergency/Activity	Total Available in 2023	Total Obligations in 2023
African Swine Fever	\$399,542,687	\$54,218,554
Bovine Tuberculosis	11,849,415	1,520,365
Avian Influenza	760,333,018	258,828,746
Farm Bill – Plant Protection Act, Section 7721	70,725,000	70,107,501
Farm Bill – Animal Disease Prevention and Management, Section 12101	45,147,589	39,226,312
Farm Bill – Feral Swine Eradication and Control Pilot Program, Section 2408	12,746,950	12,499,478
Total	\$1,300,344,659	\$436,400,956

a/ Total Available includes account recoveries, where applicable.

OTHER APPROPRIATED FUNDED ACTIVITIES

Selected Examples of Recent Progress in Other Appropriated Funded Activities

1. American Rescue Plan

In 2021, Congress provided USDA \$300 million through the American Rescue Plan (ARP) Act to conduct monitoring and surveillance of susceptible animals for SARS-CoV-2, addressing the longstanding need to strengthen our ability for early detection of emerging and zoonotic diseases in animals. APHIS is leading efforts to better understand and address SARS-CoV-2 in animals, bringing together our experts on wildlife diseases, livestock, companion, and zoo animals, and partnering with other agencies that protect human and environmental health to

take a One Health approach to the global problem of SARS-CoV-2. These efforts include learning more about the virus, which animals it affects, and how it is spreading to new locations or species. APHIS used the funding provided to build national capacity to potentially prevent or limit the next zoonotic disease outbreak, or the next global pandemic. Leveraging partnerships and external innovations, tools, and capacity are critical to the success of the ARP program.

Funding Announcement

In 2023, APHIS announced a funding opportunity to support projects for advancing detection, surveillance, and prevention strategies of SARS-CoV-2 in animals. APHIS awarded 27 projects totaling \$47.7 million to State and Federal agencies, Tribes, academic institutions, and private organizations. The awards leverage both prior and new One Health partnerships while working toward the goal of preventing or minimizing the next pandemic. Additionally, these awards support research that directly aligns with APHIS' ARP Strategic Framework and provide an expedited method of funding key activities to: address gaps in surveillance and investigation activities for SARS-CoV-2 in animals, including farmed animals, captive wildlife, free-ranging wildlife, and companion animals; expand knowledge of susceptibility of species to SARS-CoV-2 to improve understanding of potential roles or routes of transmission; develop surveillance tools and strategies for the rapid detection and characterization of emerging and re-emerging pathogens to support an early warning system to prevent or limit future SARS-CoV-2 outbreaks; and identify risks, effective interventions, and other measures to prevent transmission of SARS-CoV-2 at the human-animal interface and/or impacts to the food supply. The projects will be completed within two years and results will be available in 2025. Stakeholder Engagement and Partnerships

In 2023, APHIS expanded stakeholder engagement to increase collaboration with State and Federal agencies, Tribes, academic institutions, and private organizations. At the close of 2023, APHIS obligated approximately \$189 million through 63 cooperative agreements that incorporate animal surveillance, testing, research, and disease prevention efforts. These investments will further our understanding of how the SARS-CoV-2 virus behaves in different animals, how it moves between animals and people, and what we can do to interrupt the chain of transmission. Through these agreements, APHIS continued to study the susceptibility of certain mammals to SARS-CoV-2 to help identify species that may serve as reservoirs or hosts for the virus such as white-tail deer and mink, as well as understand the origin of the virus, and predict its impacts on wildlife and livestock animals and the risks of cross-species transmission. These ongoing efforts have generated more than 167,000 samples from 270 species across every State, 2 U.S. territories, and 5 Tribal lands. Specifically, some of the samples collected have informed SARS-CoV-2 research where the virus was transmitted from humans to white-tail deer 106 times, mutated, and led to the transmission of the virus back to humans in three instances. This research is helping APHIS better understand how SARS-CoV-2 is transmitted to both people and animals and how it is evolving. APHIS is using this research to develop and implement projects that focus on monitoring and surveillance of susceptible animals for SARS-CoV-2. These surveillance projects will assist APHIS in implementing management strategies that will ultimately reduce the potential of the virus from entering wildlife species, livestock, and companion animals, and prevent transmission to other animals or people.

Through a partnership with the National Institute of Food and Agriculture and the National Science Foundation, APHIS funded \$8.8 million for critical research regarding SARS-CoV-2 in wildlife, livestock, and captive animals. The funding supports 9 projects that are providing information on transmission dynamics, risks of disease spilling back from animals to humans, impacts of the virus on ecological communities, and the development of rapid diagnostic tools. The results of these projects will enhance preparation and response to future zoonotic disease outbreaks. The results from these projects and partnerships will continue to be reported in 2024.

Laboratory Investments

Since 2022, APHIS entered into contracts totaling approximately \$44 million to enhance data collection and laboratory capacity, including \$21.4 million with 8 entities for data management and exchange initiatives as well as equipment purchases to increase sample processing towards the goal of developing an early warning system. These initiatives provide surveillance for early disease detection, risk reduction, and management of disease threats within and across national borders. Additionally, this system increases APHIS' data sharing and sample processing capacity and network collaboration among One Health partners, like the Centers for Disease Control and Prevention, further expanding the ability to respond to new and emerging zoonotic diseases. This work will continue in 2024.

APHIS launched a website to help stakeholders and the public stay up to date on the Agency's ongoing SARS-CoV-2 surveillance projects: <https://www.aphis.usda.gov/aphis/ourfocus/onehealth>. The website provides valuable data

on testing and surveillance and, over time, will provide an important One Health link by sharing guidance based on the outcomes of ARP work and linking to valuable information from other One Health partners. Visitors of the site can obtain background information on the ARP and APHIS' ARP Strategic Framework, as well as summaries of ARP-funded surveillance projects and other activities where around 21,000 people have registered to receive ARP stakeholder notices since its launch.

As part of the Fiscal Responsibility Act signed into law on June 3, 2023, \$15.7 million of ARP funding for APHIS was rescinded and returned to the Treasury. Several initiatives were impacted as a result of the rescission, prompting delays, partial decommissions, or holds due to a lack of funds, however, cooperative agreements and contracts that were already in place will proceed to meet the need of the critical work entrusted to APHIS.

2. COVID Supplemental - Animal Disease Prevention and Response

In 2021, the Secretary of Agriculture was provided \$11.188 billion to prevent, prepare for, and respond to coronavirus by providing support to agricultural producers, growers, and processors. Examples of these efforts include nutritional assistance programs; payments to livestock and poultry growers for losses suffered due to depopulation because of insufficient processing access due to COVID-19; and another round of payments to farmers through the Coronavirus Food Assistance Program. Within the amount provided to the Secretary, language specified \$20 million should be used to improve and maintain animal disease prevention and response capacity.

In 2021, APHIS made a portion of the \$20 million available for cooperative agreements with the National Animal Health Laboratory Network (NAHLN). These agreements were used for infrastructure support to improve emergency preparedness and response capabilities related to testing the SARS-CoV-2 virus. Participating NAHLN laboratories were able to purchase critical diagnostic materials, supplies, and personal protective equipment to maintain existing testing needs while providing increased support related to the COVID-19 pandemic. Additionally, APHIS used this funding to complete a joint research project with the Agricultural Research Service to study SARS-CoV-2 transmission in mink. In 2023, APHIS used the remaining supplemental funds to improve response efforts to infectious animal diseases, and develop tools to provide reliable identification, data collection and management efforts.

ACCOUNT 2: BUILDINGS AND FACILITIES

APPROPRIATIONS LANGUAGE

- 1 *Buildings and Facilities*
- 2 For plans, construction, repair, preventive maintenance, environmental support, improvement, extension, alteration,
- 3 and purchase of fixed equipment or facilities, as authorized by 7 U.S.C. 2250, and acquisition of land as authorized
- 4 by 7 U.S.C. 2268a, \$3,175,000, to remain available until expended.

LEAD-OFF TABULAR STATEMENT

Table APHIS-18. Lead-Off Tabular Statement (In dollars)

Item	Amount
Estimate, 2024	\$3,175,000
Change in Appropriation	-
Budget Estimate, 2025	<u>3,175,000</u>

2025 USDA EXPLANATORY NOTES – ANIMAL AND PLANT HEALTH INSPECTION SERVICE

PROJECT STATEMENTS

Table APHIS-19. Project Statement on Basis of Appropriations (thousands of dollars, FTEs)

Item	2022 Actual	FTEs	2023 Actual	FTEs	2024 Estimated	FTEs	2025 Estimated	FTEs	Inc. or Dec.	FTE Inc. or Dec.	Chg Key
Discretionary Appropriations:											
Buildings and Facilities.....	\$3,175	-	\$3,175	-	\$3,175	-	\$3,175	-	-	-	-
Subtotal	3,175	-	3,175	-	3,175	-	3,175	-	-	-	-
Total Adjusted Appropriation	3,175	-	3,175	-	3,175	-	3,175	-	-	-	-
Total Appropriation.....	3,175	-	3,175	-	3,175	-	3,175	-	-	-	-
Recoveries, Other.....	-	-	569	-	-	-	-	-	-	-	-
Bal. Available, SOY.....	43,695	-	29,087	-	28,199	-	27,674	-	-\$525	-	-
Total Available.....	46,870	-	32,831	-	31,374	-	30,849	-	-525	-	-
Bal. Available, EOY	-29,087	-	-28,199	-	-27,674	-	-767	-	+26,907	-	-
Total Obligations.....	17,783	-	4,632	-	3,700	-	30,082	-	+26,382	-	-

Table APHIS-20. Project Statement on Basis of Obligations (thousands of dollars, FTEs)

Item	2022 Actual	FTEs	2023 Actual	FTEs	2024 Estimated	FTEs	2025 Estimated	FTEs	Inc. or Dec.	FTE Inc. or Dec.
Discretionary Obligations:										
Buildings and Facilities.....	\$17,783	-	\$4,632	-	\$3,700	-	\$30,082	-	+\$26,382	-
Total Obligations.....	17,783	-	4,632	-	3,700	-	30,082	-	+26,382	-
Balances Available, EOY:										
Discretionary										
Buildings and Facilities.....	1,283	-	817	-	792	-	767	-	-25	-
General Provision 743 Fruit Fly Rearing Facility	27,803	-	27,382	-	26,882	-	-	-	-26,882	-
Total Bal. Available, EOY	29,087	-	28,199	-	27,674	-	767	-	-26,907	-
Total Available.....	46,870	-	32,831	-	31,374	-	30,849	-	-525	-
Recoveries, Other.....	-	-	-569	-	-	-	-	-	-	-
Bal. Available, SOY.....	-43,695	-	-29,087	-	-28,199	-	-27,674	-	+525	-
Total Appropriation.....	3,175	-	3,175	-	3,175	-	3,175	-	-	-

JUSTIFICATION OF CHANGES

The Buildings and Facilities (B&F) program addresses facility needs in support of the Agency's mission to protect 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. APHIS' Facility Condition Index (FCI) drives the projects; the FCI 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 facility.

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. The program manages the implementation of scheduled facility improvements, safety, 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 assist with the development of project plans, attend on-site construction progress meetings/reviews, and APHIS collects performance data through contractor reports and on-site verification.

In 2023, APHIS awarded 12 design/construction tasks associated with projects at a cost of approximately \$3.66 million and completed 10 construction projects. Approximately 35 percent of these projects were major renovations, and the remaining were for minor repairs. Construction progress and final inspection reports are performed to ensure construction modifications are in accordance with the design plans and in compliance with Federally operated facility requirements. Some of the ongoing projects requiring major or minor renovations include replacing the HVAC system (Building 6414) and the Combined Underground Utility Upgrades at Moore Air Base, Mission, TX, as well as upgrading the electrical service at the National Centers for Animal Health Bldg. #21 in Ames, IA.

The B&F program allows APHIS to centrally coordinate and prioritize these types of projects. Without necessary maintenance and repairs to facilities there could be program delays, environmental impacts, and noncompliance with State and local laws and codes. 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, sustainable, and high-performing facilities.

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

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND FTEs

Table APHIS-21. Geographic Breakdown of Obligations and FTEs (thousands of dollars, FTEs)

State/Territory/Country	2022		2023		2024		2025	
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE
Colorado.....	-	-	\$45	-	\$50	-	\$50	-
Florida.....	\$107	-	-	-	-	-	-	-
Idaho.....	-	-	98	-	100	-	100	-
Iowa.....	706	-	-	-	100	-	100	-
Maryland.....	115	-	991	-	250	-	250	-
New York.....	1,236	-	-	-	1,300	-	1,500	-
Texas.....	15,619	-	3,479	-	1,900	-	28,082	-
Utah.....	-	-	19	-	-	-	-	-
Obligations.....	17,783	-	4,632	-	3,700	-	30,082	-
Bal. Available, EOY.....	29,087	-	28,199	-	27,674	-	767	-
Total, Available.....	46,870	-	32,831	-	31,374	-	30,849	-

CLASSIFICATION BY OBJECTS

Table APHIS-22. Classification by Objects (thousands of dollars)

Item No.	Item	2022 Actual	2023 Actual	2024 Estimated	2025 Estimated
	Other Objects:				
25.2	Other services from non-Federal sources.....	\$17,783	\$4,630	\$3,700	\$30,082
	Total, Other Objects.....	17,783	4,632	3,700	30,082
99.9	Total, new obligations.....	17,783	4,632	3,700	30,082

STATUS OF PROGRAMS

The Buildings and Facilities (B&F) appropriation funds major, nonrecurring construction projects in support of program activities, and recurring construction, alterations, and repairs of existing facilities. These projects and activities allow other programs and employees to focus on APHIS' mission of protecting the health and value of agriculture and natural resources nationwide. The goal of the B&F program is to systematically address the Agency's needs for maintaining and repairing existing facilities as well as constructing new facilities. 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. 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 are conducted at safe, secure, sound, sustainable, and high-performance facilities that support the Agency's mission.

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

Facilities Condition Assessment

APHIS assigns each facility with a Facility Condition Index (FCI), which is the sum of the costs of needed repairs divided by the replacement value of the facility and uses the FCI scores to determine each year's projects. APHIS strives to maintain an FCI for facilities assessed of less than 0.10, meaning that the cost to make repairs is less than 10 percent of the estimated replacement value for the facilities.

Since 2000, APHIS has used a comprehensive Facilities Condition Assessment (FCA) 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. To implement this Facilities Condition Assessment program, a consulting firm is tasked with assessing the relative condition of assets and facilitating comparisons both within and among APHIS' facilities. The consulting firm calculates an FCI for each facility by program and Agency. In 2023, APHIS completed 8 FCA's and awarded 9 contractual FCA requests.

Summary of Current Projects

The B&F program implements scheduled improvements, and conducts security, construction, and maintenance activities. Contractors perform inspections and tests to substantiate that the supplies or services furnished under the contract conform to contract requirements. In addition, a third-party design firm validates that the work aligns with approved plans and specifications. APHIS typically identifies on-site certified personnel to perform the Contracting Officer's Representative services. The Agency's engineering staff attends construction progress meetings in person, on-site, or virtually and APHIS collects performance data through contractor reports and on-site verification.

As of October 2023, APHIS' B&F appropriation was supporting seventeen active projects. In 2023, APHIS awarded 12 design/construction tasks associated with projects at a cost of approximately \$3.66 million and completed 10 construction projects. Approximately 35 percent of these projects were major renovations, and the remaining were for minor repairs. Construction progress and final inspection reports are performed to ensure construction modifications are in accordance with the design plans and in compliance with Federally operated facility requirements.

Some of the ongoing projects requiring major or minor renovations include replacing the HVAC system (Building 6414) and the Combined Underground Utility Upgrades at Moore Air Base (MAB), Mission, TX, as well as upgrading the electrical service at the National Centers for Animal Health (NCAH) Building #21 in Ames, IA. Progress on these projects in 2023 are summarized below:

Moore Air Base, Building 6414 HVAC System

This project includes replacing existing chilled water piping and air handling units that have reached their life expectancy for optimal usage. The construction contract was awarded in 2021, construction began in 2022, and continued through 2023. The project is expected to be completed by the end of 2024.

Moore Air Base, Combined Underground Utility Upgrades

This project will address the needed repairs for an 80+ years old infrastructure to ensure current and future agency mission operations can continue. The scope of this project includes the installation of a new sanitary sewer system, electrical upgrades, and changes to an antiquated communication infrastructure at MAB in Mission, TX. A construction contract was awarded for this project in 2022. In 2023, the construction contract was modified to include the installation of Raw water and Stormwater lines. Construction efforts began in 2023 and are expected to continue through 2024.

National Centers for Animal Health (NCAH) Building #21 Electrical Service Switchover, Ames, IA

The primary objective of the project is to switch the electrical service for Building #21 from Ames Municipal Power to Alliant Energy. The NCAH were previously split between two power territories, which led to operational challenges. The switch will provide a more robust, consistent power supply with redundant back-up to the whole NCAH campus. Reliable power is critical to maintaining services and safeguarding personnel in the facility. The construction contract was awarded in 2023. Construction efforts begin in 2023 and are expected to continue through 2024.

AGENCY-WIDE PERFORMANCE**Introduction**

OBPA leads the Department in performance management including, evaluation, evidence, and risk management; it also chairs the Performance, Evaluation, Evidence Committee (PEEC) and the Enterprise Risk Management (ERM) committee. APHIS is a member of both the PEEC and ERM committees which is comprised of individuals from different Mission Areas and backgrounds throughout USDA. The impact of different perspectives and expertise allows for improvements regarding buy-in across the Department, augments technical expertise, and creates a greater diversity of perspectives. Partnerships with the Chief Data Officer and Statistical Officer allow for greater insight and advisement on data access, data quality, and statistical methods. APHIS' Policy and Program Development unit spearheads its efforts in Strategic Planning, Performance, Evidence and Evaluation, and Enterprise Risk Management, works directly with OBPA and senior leadership, and actively engages with both internal and external stakeholders.

Alignment to USDA 2022 – 2026 Strategic Plan

APHIS activities contribute to the success of USDA's overall mission to provide leadership on food, agriculture, natural resources, rural development, nutrition, and related issues using sound public policy, the best available science, and effective management, to the benefit of all Americans. APHIS is responsible for achieving and measuring results with respect to the following 2022 – 2026 Strategic Goal and Objectives:

Strategic Goal 2: Ensure that America's agricultural system is equitable, resilient, and prosperous

- Objective 2.1: Protect agricultural health through minimizing the impact of major pests, diseases, and wildlife conflicts.

SUMMARY OF PERFORMANCE

A more detailed report of the performance plan can be found at <https://www.usda.gov/our-agency/about-usda/performance>. The following table summarizes the results for the Departmental Key Performance Indicators (KPIs) for which APHIS is responsible.

Table APHIS-23. KPI-Animal and Plant Health

Strategic Objective 2.1	Item	2023	2024	2025
Wildlife Disease Sampling	Results	17	-	-
2.1.1 Number of zoonotic and agricultural diseases sampled in wildlife	Target	17	18	N/A

This KPI is being retired in 2025. Staff are at capacity sampling for emergency programs needs such as highly pathogenic avian influenza, African Swine Fever (ASF), and SARS-CoV-2.

Strategic Objective 2.1	Item	2023	2024	2025
Climate Suitability Mapping	Results	24	-	-
2.1.2 Number of priority pests for which climate suitability maps have been completed	Target	24	32	38

Strategic Objective 2.1	Item	2023	2024	2025
SHIP Pilot	Results	60	-	-
2.1.3 Percent of U.S. Swine Inventory Enrolled in Swine Health Improvement Program (SHIP) Pilot	Target	Baseline	-	70

This KPI is being introduced in 2025.

Expected Performance Progress Towards the Achievement of Strategic Objectives:

Strategic Objective 2.1: Protect agricultural health through minimizing the impact of major pests, diseases, and wildlife conflicts.

Climate Suitability Maps: In 2025, APHIS will complete six new climate suitability maps for a cumulative total of 38 maps and will begin updating previously completed maps with the latest climatic and scientific data. APHIS

develops the maps using a modeling framework that predicts the changing suitability of an area for pest or disease occurrence based on the likelihood of favorable conditions specific to the pest or the disease occurring. The maps will help guide efforts to determine where to conduct surveys. Importantly, the maps will help APHIS and cooperators use survey resources more effectively by eliminating the need to survey for some high-risk pests if suitable conditions do not exist in an area.

SHIP Pilot: The U.S. SHIP program is a key part of APHIS’ national plan to safeguard U.S. pork production from ASF and other diseases. This program provides support for industry leadership on sustainable solutions to ASF preparedness and prevention, and participation in this program will ensure an increase in biosecurity and traceability practices that will enhance APHIS’ ability to control disease and return to productivity and marketability in the event of an ASF incursion in the swine sector. APHIS plans to expand the current pilot to a permanent program and this KPI will help measure the success of enrolling industry in the program.