PPQ 2025 Annual Report

Optimizing Pest Management: Tree and Wood Pests

Table of Contents

Introduction

The Tree and Wood Pests (TWP) program protects forests, private working lands, and natural resources from the Asian longhorned beetle (ALB), emerald ash borer (EAB), and spongy moth. Numerous native hardwood tree species that are common throughout the United States are vulnerable to these pests. The U.S. Department of Agriculture's Plant Protection and Quarantine (PPQ) program 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 PPQ protects is over $200 billion (U.S. Forest Service, 2024). 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 Council of Tree and Landscape Appraisers determined the potential value loss of forested areas from ALB as greater than $2 trillion nationwide. In the eastern United States alone, 4 million jobs depend on forests vulnerable to ALB. The program's ALB eradication activities prevent multi-billion-dollar losses to the maple syrup, timber, tree nursery, trade, and tourism industries.

PPQ's eradication strategy for ALB includes surveys, regulatory inspections, quarantine restrictions, removal of infested and high-risk trees, and chemical treatment applications. PPQ conducts several survey cycles to determine the scope of infestation, establish a quarantine area, identify trees to remove or treat, determine whether the pest has spread outside the established quarantine area, and determine when to release the 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 area's size, tree density and type, and the type of landscape or land use.

PPQ can declare eradication in a given area after a minimum of 4 years without finding ALB between the last detection of the pest and the completion of the final survey cycle. PPQ 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.

ALB was first detected in Brooklyn, New York, in August 1996, and was later found in other States. 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, Manhattan, New York, and Monroe Township, Ohio. In FY 2025, the program conducted activities in regulated areas of Massachusetts, New York, Ohio, and South Carolina. In fiscal year (FY) 2025, the program surveyed 579,935 trees across the 4 regulated areas.

More specifically, in FY 2025, the program continued ongoing survey efforts in Worcester County, Massachusetts, surveying 173,047 trees in densely wooded, hard-to-access areas. No new infested trees were found. On July 7, 2025, APHIS issued a Federal Order rescinding 12.3 square miles of the ALB

quarantined area, consisting of the Town of Holden in Worcester County, Massachusetts. Over the program's lifetime, the program has surveyed more than 11 million trees and removed 36,263 high-risk host and infested trees.

In FY 2025, in the Long Island, New York quarantine, 72,574 trees were surveyed, and 4 new infested trees were found. The infested trees were removed, and 433 non-infested host trees within a quarter-mile of the infested trees were treated as a preventive measure to protect them from infestation. An additional 421 trees were treated in high-risk areas. As of February 20, 2026, the program has surveyed a cumulative 1.9 million trees on Long Island and removed more than 8,848 trees.

In FY 2025, in Tate Township, Ohio, the program surveyed over 250,803 trees, found 37 new infested trees, and removed 93 infested and high-risk host trees. Surveying and infested tree removal efforts continued in the remaining 43.9 square miles of the Ohio quarantine area. On March 14, 2025, APHIS issued a Federal Order rescinding 5.2 square miles of the ALB quarantined area in Clermont County, Ohio. The program has surveyed over 5 million trees in Ohio and removed approximately 118,460 since the initial detection in 2011.

In FY 2025, efforts in South Carolina focused on ALB surveys across various parts of the core quarantine area and on the removal of infested and high-risk host trees within the infestation core. This regulated area includes forested and wetland areas, making access for surveys and tree removals challenging. In August 2025, a satellite infestation was discovered in Mount Pleasant, SC, approximately 15-20 miles east of the core quarantine area. Fifty (50) infested trees were discovered in the Mount Pleasant satellite in FY 2025, and 777 infested trees were discovered in South Carolina. The program surveyed 85,538 trees and removed 5,534 trees. Since 2020, the program has surveyed 543,341 trees and removed approximately 26,292 infested and high-risk host trees.

Emerald Ash Borer

EAB was first detected in Michigan in 2002 and has since been detected in 36 additional States and the District of Columbia. EAB spreads beyond what a regulatory program can control. As a result, PPQ published a proposed rule in the Federal Register in 2018 to remove the EAB Federal domestic quarantine regulations, which was finalized in 2021. PPQ continues to operate the EAB program as a

biological control program to help effectively manage EAB populations. Biocontrol of EAB using four species of parasitic stingless wasps is a promising strategy for long-term EAB management. In FY 2025, PPQ provided parasitoids to 136 sites (1 in Canada and 135 in the United States). Parasitoid releases took place across 28 States and one Province. In addition, PPQ provided federal and university researcher cooperators with 22,780 EAB eggs to support scientific research, up from 7,640 the prior year. This research is the scientific knowledge of EAB and parasitoid biology and behavior.

The EAB program has cumulatively released a total of more than 9 million parasitoids in 491 of more than 1,487 EAB-infested counties in 37 States and the District of Columbia. PPQ 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. PPQ 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 the pest's long-distance spread. Spongy moth also spreads naturally into areas bordering the quarantined zone. PPQ 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 that the quarantine is regulated effectively. Working with the U.S. Forest Service and the Slow-the-Spread Foundation, PPQ and cooperators have greatly reduced the rate of spongy moth spread and eradicated isolated populations, preventing this pest from becoming a larger issue.

In FY 2025, PPQ and State cooperators continued to conduct spongy moth surveys to detect, delimit, and eradicate any isolated populations. PPQ supported 16 states through the spongy moth allocations in the TWP Line for detection, delimitation, and regulatory activities. More specifically, the program and its partners continued precision-delimiting surveys in California, Washington, and Oregon to detect spongy moth. In addition, PPQ, the U.S. Forest Service, and State partners completed the second year of a post-treatment delimitation response following a spongy moth eradication treatment in Washington State. Results after two years of delimitation response determined that no moths were detected in the treated area. In 2026, California and Washington are planning eradication treatments, and Oregon will conduct additional precision delimitation activities.

Flighted spongy moth complex (FSMC) is a collective term for a species complex consisting of five taxa, all of which are closely related to the spongy moth. The 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 it can hitchhike on shipping vessels from Asia. PPQ supports the exclusion of FSMC through offshore vessel inspection, certification, and cleaning requirements. PPQ, the U.S. Department of Homeland Security's Customs and Border Protection, and the Canadian Food Inspection Agency conduct continuous joint outreach to the maritime shipping industry.

In 2025, PPQ and State cooperators completed a 2nd-year post-treatment delimitation response following an eradication treatment in Washington State to determine whether a FSMC population was present after detections at two sites in 2023. This precision delimitation process includes at least 3 years of surveying to determine if the treatment was successful or to determine the scope of infestation. Results of this second year of delimiting determined that no moths have been detected in the area.