



PPQ 2025 Annual Report
Optimizing Pest Management: Cotton Pests

Table of Contents

Introduction.....1

Boll Weevil.....2

Pink Bollworm4

Introduction

The Cotton Pests Program of the U.S. Department of Agriculture’s (USDA) Plant Protection and Quarantine (PPQ) 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. PPQ is part of USDA’s Animal and Plant Health Inspection Service (APHIS).

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. PPQ provides national coordination, operational oversight, and technology development (such as sterile insect technology), 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.

Boll Weevil

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). PPQ began the initial BW eradication program (BWEP) 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, PPQ and cooperators have eradicated BW from 99.5 percent of the 9.28 million acres of planted cotton in the United States, with eradication activities continuing in the National Buffer Zone that includes the Lower Rio Grande Valley (LRGV) of Texas. Currently, BW only exists in 10 quarantine counties in Texas. The LRGV is the last zone within the United States where the pest persists. BW captures in LRGV decreased by 61 percent, with 74 captures by November 2025, compared with 191 BW captures by the same time in 2024. Cooperators in LRGV treated 46,456 acres in 2025, compared with 263,726 acres treated in 2024. BW populations in the neighboring Mexican cotton producing State of Tamaulipas impact eradication efforts in the LRGV.

Therefore, APHIS (PPQ and International Services) and its cooperators in Mexico's National Service for Agrifood Health, Safety and Quality (SENASICA) and the Texas Boll Weevil Eradication Foundation (TX-BWEEF) are working to eradicate BW from the Mexican state of Tamaulipas.

In 2025, PPQ continued its support for the BWEP 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-BWEEF 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-BWEEF managers to monitor trap deployment, trap servicing, and treatment activities in real time.

Due to the agreement in 2024 between PPQ, SENASICA, and Mexico's growers to cap planting to

restrict available BW habitat, the treated acres in Mexico decreased by 33%, dropping from 284,024 acres in 2024 to 149,982 acres in 2025. BW captures in Tamaulipas increased by 3.4 percent, totaling 432 through December 2025, compared with 416 BW captures by the same time in 2024. In 2025, cooperators treated 207,865 acres in the Tamaulipas, compared with 308,666 acres that needed treatment by the same time in 2024. The success of the program is highlighted by 28 consecutive weeks without detections in 2025, representing a significant improvement over 2024 results.

In 2025, cooperators from TX-BWEP and SENASICA continued monitoring BW populations in central and southern Tamaulipas with BW traplines extending over 180 miles south from the current BWEP in Northern Tamaulipas. Trap lines informed cooperators of significant and active BW populations that are a migratory distance from the current BWEP.

In 2025, PPQ maintained virtual monthly meetings with SENASICA and TXBWEP to ensure open communication about BW eradication successes and challenges throughout the growing season. PPQ continued to work with SENASICA at multiple levels to ensure growers adhere to eradication and quality control protocols, as well as to ensure growers adhere to defoliation, harvest, and stalk-destruction timelines set by BWEP. This collaboration protects U.S. cotton producers by reducing the BW population in Tamaulipas, thereby reducing pest pressure on the LRGV, improving the quality of trapping data, and enabling the program to respond more effectively and promptly to mitigate potential risks through a binational cooperative approach.

In 2026, PPQ 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. PPQ is committed to monitoring for BW to ensure the early detection of any reintroductions outside of the current quarantine area in Texas, and to work toward successful eradication of BW in the LRGV in the coming years. Additionally, APHIS will continue to partner with SENASICA and the TX-BWEP to eradicate BW from Northern Tamaulipas. The U.S. cotton industry and cotton growers support the BWEP to eradicate BW from the U.S. and cotton-growing regions in northern Mexico to prevent BW from re-establishing in the United States.

Pink Bollworm

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. In 2018, PPQ, in conjunction with industry partners, successfully eradicated PBW from all commercial cotton-producing areas in the continental United States. In that same year, the Florida Department of Food, Agriculture, and Consumer Services (FDACS) added a PBW quarantine for south Florida, where wild PBW populations have persisted for over 80 years in wild cotton. In 2020, FDACS restricted planting of commercial cotton by designating south Florida as a regulated area for PBW. Since 2018 APHIS has supported PBW surveys to ensure that isolated PBW populations in southern Florida do not move north into the commercial cotton production areas. In 2025, there were no detections of PBW in 83,380 acres of commercial cotton surveyed in north central Florida. These surveys will continue in 2026.