USDA Animal and Plant Health Inspection Service
U.S. DEPARTMENT OF AGRICULTURE

PPQ 2022 Annual Report

Pest Detection

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Introduction

The goal of the Pest Detection Program is to document the presence or absence of plant pests and diseases of Federal regulatory significance in the United States. This documented information is the basis of regulatory efforts and pest management programs of the U.S. Department of Agriculture's Plant Protection and Quarantine (PPQ) program. This work preserves economic opportunities for farmers (i.e., interstate commerce and international trade) and safeguards U.S. agricultural and natural resources. The program collaborates with Federal agencies, State departments of agriculture, Tribes, academic institutions, and industry partners in all 50 States and several U.S. Territories to conduct program activities.

Cooperative Agricultural Pest Survey

PPQ and its State cooperators carry out plant pest surveys through the Cooperative Agricultural Pest Survey (CAPS) program. PPQ provides national coordination for the program and develops policies and procedures for surveys. In addition, the program funds survey coordinator positions in each State as part of the personnel infrastructure necessary to ensure early detection of phytosanitary pests and diseases of concern. The program enables PPQ and cooperators to target high-risk hosts and commodities, gather data about pests specific to a commodity, and provide information of pest distribution, including pest-free areas.

Early pest detection is important to avert economic and environmental damage. In addition to lost farm revenues and damage to ecosystems, the mitigation costs can reach millions of dollars once a pest becomes established or spreads significantly. While many entities are involved in protecting crops and resources, PPQ 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 FY 2022, PPQ and cooperators in 50 States and 4 Territories conducted a total of 326 early pest detection surveys, targeting more than 97 percent of the high-risk plant pests and diseases identified for FY 2022 surveys. Through the Pest Detection program, PPQ also funded a network of approximately 49 State Survey Coordinators that assisted States. PPQ confirmed at least 7 pests new to the United States. The program is evaluating and responding to about 50 pests identified during FY 2022 surveys and prior years including old world bollworm, golden twin-spot moth, and tomato brown rugose fruit virus. Evaluating these detections allows PPQ and State officials to determine whether regulatory or mitigation measures are necessary to manage the potential impacts of the pests or diseases. In FY 2022, 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.

In addition to providing data for determining when pest response activities are needed in the United States, PPQ uses the data showing that many high-risk pests are not present to support U.S. farmers' access to export markets. In FY 2022, PPQ used the data in bilateral trade discussions, pest risks assessments supporting U.S. exports, and issuance of phytosanitary certificates.

Proactive Approach to Pest Detection

In addition to the annual surveys and detected pests, the Pest Detection program coordinates development of survey tools for high-risk pests with PPQ scientists. For example, in FY 2022 PPQ developed climate suitability maps to help State cooperators target survey efforts for 10 pests of concern. In consultation with stakeholders, PPQ determined eight pests do not require regulatory measures and the regulatory pest status changed from quarantine to non-quarantine; these pests include: *Agriotes lineatus*, *Batocera rufomaculata*, *Clepsis spectrana*, *Colletotrichum phormii*, *Ctenarytaina spatulata*, *Lachnopus curvipes*, *Megalurothrips usitatus*, and *Thaumastocoris peregrinus*.

Canine Detection and Surveillance

PPQ continued developing the use of canines for pest surveillance efforts in FY 2022, focusing on SLF, Japanese beetle, and Asian longhorned beetle (ALB) in FY 2022. PPQ provided funding to Auburn University College of Veterinary Medicine's Canine Production Sciences program for the projects. Through the agreement, Auburn will continue developing the use of 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 Oregon and to detect frass left by ALB to enhance ALB detection efforts. The program also provided a portion of the funding for ongoing support of the ACP-focused canine teams in California and the mollusk and parcel inspection teams in Florida.