The Significance of Surveillance to Safeguarding America’s Agricultural Plant Health

Some exotic plant pests and diseases leave immediate evidence of their presence. Others, however, can go undetected for months or even years in the absence of proper surveillance. Without early detection, insidious plant pests, diseases, and weeds can become established in the United States and permanently damage agricultural and natural resources and cost millions in control and eradication costs and lost markets.

As part of the U.S. Department of Agriculture’s (USDA) efforts to safeguard America’s agricultural health, the Animal and Plant Health Inspection Service’s (APHIS) Plant Protection and Quarantine (PPQ) program is always looking for signs and symptoms of foreign and emerging plant pests, diseases, and weeds. Working cooperatively with State and university partners, PPQ conducts nationwide surveillance for exotic pests, diseases, and weeds. This constant surveillance helps to ensure rapid detection of devastating organisms before they have the opportunity to become established and cause large scale agricultural and environmental damage.

Current Plant Health Surveillance Programs

PPQ conducts active surveillance for a variety of specific plant pests and diseases, including plum pox, Asian longhorned beetle, emerald ash borer, Karnal bunt, sudden oak death, citrus canker, potato mop top virus, citrus longhorned beetle, Ralstonia solanacearum race 3 biovar 2, along with many other pests and noxious weeds.

PPQ also evaluates emerging plant issues in the global arena, monitors current plant pest and disease outbreaks worldwide, and develops eradication plans in the event that any of these pests or diseases enter the United States.

Cooperative Agricultural Pest Survey

In addition to its active surveillance efforts, PPQ also oversees and manages the national Cooperative Agricultural Pest Survey (CAPS), a cooperative project that combines the skills and resources of PPQ with those of State agricultural organizations and universities. CAPS incorporates survey data acquired from States on the detections and movements of damaging foreign organisms exotic plant pests, diseases, and weeds throughout the United States. This data is a critical tool in determining the extent and nature of an infestation.

The CAPS program has also been instrumental in surveying for damaging organisms, including certain woodboring beetles, that do not exist in the United States but have been intercepted at U.S. ports of entry. This proactive work helps ensure that if these organisms are found, they are detected quickly before they can become established here. Early detection not only saves millions of dollars in control and eradication costs, but protects U.S. natural resources and prevents the economic disruption of agricultural industries.

Each year, PPQ develops a list of potential survey targets and issues a call for survey proposals from each State. This allows the States to understand PPQ’s priorities for the upcoming year and to complement State surveillance and detection needs. PPQ then works with national, regional, and State committees to determine what survey data will be collected and how it will be managed.

In addition, CAPS tracks more than 4,000 pests and diseases nationwide. All data collected is stored in the National Agricultural Pest Information System (NAPIS).

In an increasingly global economy involving greater international trade than ever before, pests and diseases affecting agricultural and natural areas can have a significant impact on the marketability of U.S. agricultural commodities throughout the world. CAPS detailed distribution maps help assure U.S. trading partners that specific counties and States are free of plant pests and diseases that may be of concern, preserving critical markets for U.S. products.
Emergency Response

When PPQ confirms the presence of a foreign plant pest or disease in the United States, immediate action is taken to contain and eradicate the organism as quickly as possible. Depending upon the organism, PPQ may dispatch a Rapid Response Team to the location of the outbreak to quickly implement whatever eradication measures may be necessary. This includes control techniques like establishing quarantines, removal of affected plans, tracebacks and traceforwards of the movement of any potentially infected products, surveys, and work with local producers. Depending on the pest or disease, eradication programs can last anywhere from a few weeks to years.

In the event of an agri-terror attack on our homeland, the Department of Homeland Security (DHS) and APHIS would work as partners to safeguard Americas food and agricultural resources. DHS would lead the team of first responders to contain and manage the threat, while APHIS would provide crucial scientific and diagnostic expertise. This expertise would be critical in managing a potential plant pest outbreak as well as assisting DHS in its investigative and intelligence-gathering efforts to find those responsible for the terrorist attack. Today’s world presents new threats to U.S. agriculture, and this partnership creates a stronger line of defense to protect our Nation’s agricultural resources.

Education

As stated earlier, PPQ does not conduct plant health surveillance alone. This work is done in cooperation with State departments of agriculture, regulatory agencies, universities, and other USDA agencies.

Another large component of PPQ’s plant health surveillance program is cooperative outreach and education to a variety of audiences, including farmers, producers, brokers and shippers, and the general public. PPQ works regularly with industry associations and groups to help educate their members on the signs and symptoms of these pests and diseases. By providing these groups with the latest surveillance data and detailed informational tools on potential plant health threats, PPQ greatly increases its ability to detect pests and diseases not yet found in the United States and safeguard our future plant health resources.

Additional Information

For more information contact:
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