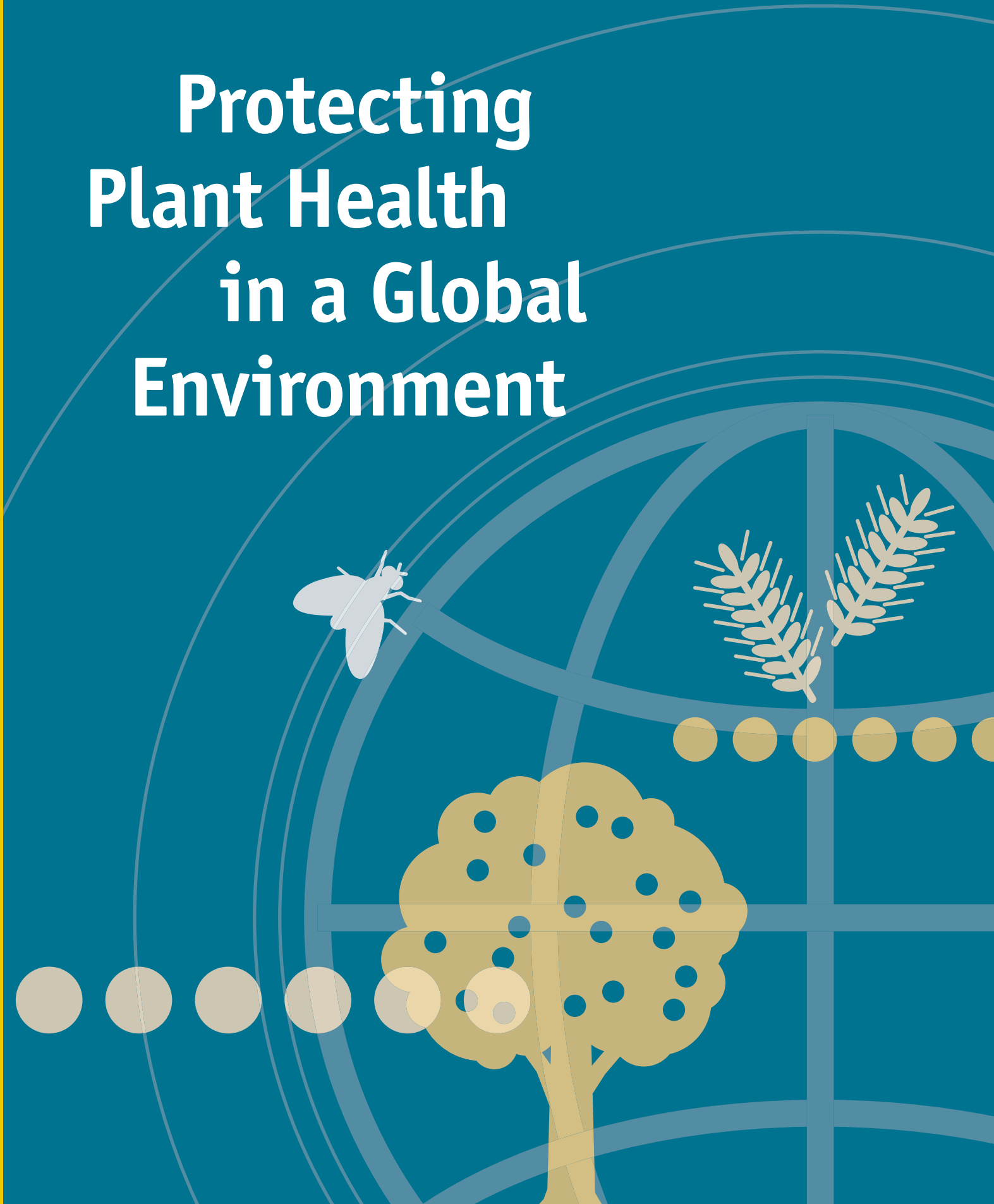
United States Department of Agriculture
Animal and Plant Health Inspection Service

Protecting Plant Health in a Global Environment



The Plant Protection and Quarantine (PPQ) program in the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) touches the lives of all Americans by ensuring the availability of domestic and imported foods in the marketplace, creating new trade opportunities for agricultural exports, and contributing to the health of U.S. public and private lands.

PPQ takes a lead role for APHIS in plant health issues as specialists in the safe movement of agricultural products around the world. PPQ also joins with other APHIS programs, USDA agencies, and Federal partners to mitigate the introductions of, and adverse impacts caused by, invasive species—plants and animals from abroad that threaten our ecosystems.

PPQ's activities can be grouped into three broad categories: safeguarding plant and animal resources from foreign pests and diseases, managing plant pests to protect plant resources, and working to enhance the free flow of trade by removing phytosanitary and technical barriers. Specific actions in support of these categories include animal and plant pest exclusion, smuggling interdiction, trade compliance, pest monitoring, risk analysis, and areawide pest management, including response to emergency situations.

Agricultural Quarantine and Inspection

PPQ's Agricultural Quarantine and Inspection (AQI) program is designed to prevent the introduction of harmful plant and animal pests and diseases, such as noxious weeds, insects, plant pathogens, and parasites, into the United States. These pests and diseases could threaten the abundance and variety of the U.S. food supply, damage our natural resources, and cost American taxpayers hundreds of millions of dollars for higher priced food and fiber products as well as the cost of control and eradication programs.

PPQ officers and technicians inspect passenger baggage, mail, ship and airline stores or food supplies, and vehicles and cargo in the Federal Inspection Services area at U.S. ports of entry. In Hawaii and Puerto Rico, and in some Caribbean countries, passengers undergo predeparture inspection before leaving for the U.S. mainland. PPQ inspectors look for prohibited agricultural products

and associated materials that could serve as pathways for the introduction of invasive pests. These products are forbidden entry into the United States or are allowed in only under very specific conditions. Every year, PPQ port personnel intercept tens of thousands of insects and tons of agricultural contraband and associated material that could contain microscopic plant and animal pests and diseases.

PPQ employs more than 120 x-ray machines and detector dog teams at more than 20 airports and 3 land-border ports to increase the efficiency of passenger baggage inspections. The dog teams, USDA's Beagle Brigade, work primarily at international airports and selected post offices for baggage and package inspection. The beagles' average success rate in finding concealed, regulated items is 90 percent. Beagle Brigade teams and PPQ officers have also become goodwill ambassadors for USDA, making speeches and giving demonstrations at schools, fairs, and other public events.

PPQ cooperates with the U.S. Department of the Interior in carrying out provisions of the Endangered Species Act that forbid the import or export of endangered plant species. PPQ officers at ports of entry are trained to identify these plant species and take appropriate action.

PPQ officers also inspect and sample seed imported from foreign countries to ensure that it is accurately labeled and free of noxious weeds. International garbage and ship and airline stores must be inspected as well, to ensure that they are treated with special care and according to regulations so no plant or animal pests and diseases accidentally enter the United States. PPQ also inspects and supervises the cleaning of all military equipment and troop supplies when the U.S. military returns from missions out of the country. (The household goods of military and civilian personnel moving back stateside are also subject to inspection.)

All prohibited items seized from inspections are examined, rendered harmless, and disposed of by incineration, grinding, or burial. Large shipments of agricultural goods found to be ineligible for entry may be subject to treatment, returned to the country of origin, or turned over to PPQ officers for destruction. At large airports like John F. Kennedy International Airport in New York, seaports like Miami, and land-border ports like San Ysidro, CA, PPQ operates around the clock. Congress has authorized PPQ to collect user fees to cover the costs of providing certain services under the AQI program.

Phytosanitary Issues Management

While safeguarding American agriculture, it is also the goal of PPQ to ensure the free flow of agricultural trade between the United States and other nations. PPQ's Phytosanitary Issues Management (PIM) team has primary responsibility for planning, coordinating, and helping to resolve phytosanitary and biotechnology issues that impede trade. This work is accomplished through developing and harmonizing international standards, agency policies, and foreign and domestic quarantines that deal with the movement of plants, plant products, and soil. The PIM staff also makes science-based risk-management decisions on petitions from foreign trade partners who want to export regulated articles to the United States.

The PIM team is the primary USDA resource for addressing science-based phytosanitary concerns affecting agricultural trade. The PIM staff provides authoritative technical expertise for interpreting the intent and applicability of plant health requirements. Such interpretations are provided in response to inquiries from Federal, State, international, and territorial officials, private industry, and the public. In addition, PIM employees consult and advise U.S. agricultural attachés and plant protection officials

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of foreign countries on issues of foreign plant quarantine laws and regulations. The team is instrumental in resolving questions that could to lead to misunderstandings or ambiguity. Members of the PIM team often travel to foreign countries to resolve trade disputes or clarify regulations that could impact market opportunities for U.S. exports. It's also the job of the PIM team to provide leadership on biotechnology standards development and international harmonizations of plant biotechnology regulatory issues that affect trade.

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By ensuring appropriate U.S. representation and participation in regional and global phytosanitary organizations and in the development of policies and standards, the PIM team is protecting the future of U.S. agriculture and promoting new opportunities for trade.

Preclearance

Preclearance is one way in which APHIS is working to build bridges with foreign countries to bring new and healthy plants and plant products to the United States. Preclearance is the inspection and treatment of foreign agricultural commodities prior to export to prevent harmful exotic pests and diseases from being transported to the United States. The goal of preclearance programs is to intercept these destructive pests in their native land, thereby avoiding costly eradication programs at the destination point. In addition, preclearance programs expedite the clearance process, are cost effective for exporters, and reduce the workload at ports of entry.

APHIS operates permanent preclearance programs in South America, Europe, Asia, Africa, and the Caribbean. Chile lays claim to the world's largest preclearance program, followed by Mexico and the Netherlands. Worldwide, APHIS oversees the preclearance of more than 150 agricultural commodities. Produce as diverse as tulip bulbs and mangoes are inspected and/or treated under this initiative. Highly skilled employees from PPQ and APHIS' International Services unit are detailed to some international locations year-round and to others just during harvest and shipping seasons. These workers certify that commodities are pest and disease free on the basis of inspection and/or treatment prior to arrival in the United States.

The type of preclearance program established in each country depends on the commodities that will be exported to the United States, as well as pest and disease concerns associated with the commodity. Some agricultural commodities require only inspection prior to export to the United States. Other commodities, however, require treatment before they can be cleared for entry into the United States. The most common types of preclearance treatment include hot-water immersion, cold treatment, and fumigation. All are effective in killing different pests and diseases.

Hot-water treatment involves submerging fruit in hot water for varying lengths of time and is effective in killing fruit-fly larvae. Cold treatment often lasts several days and uses near-freezing temperatures to kill quarantine pests. Cold treatment often occurs while the agricultural commodity is already on its way to the United States. For fumigation, commodities are placed in an enclosed area and treated with chemicals. The chemical used depends on the commodity and the quarantine pest of concern.

Risk Analysis

Before any new agricultural commodity can be allowed into the United States, a pest risk analysis (PRA) must be completed. Growth in international trade brings with it the possibility that harmful nonindigenous organisms or invasive species could be introduced into the United States, resulting in negative consequences for producers and consumers. PRAs help to identify and quantify the risk a specific commodity presents.

The objective of the PRA process is to provide a reasonable estimation of the overall risk presented by specific nonindigenous organisms or by nonindigenous organisms associated with specific pathways or certain commodities, such as fruits, vegetables, and nursery stock. While a specific agricultural commodity may present some risks, the PRA also identifies ways to mitigate those risks. For example, the United States imports mangoes from Mexico even though a PRA identified certain regions of that country that are inhabited by the Mexican fruit fly. To mitigate the risk of importing Mexican fruit flies along with mango shipments, all mangoes must be hot-water treated in Mexico to kill any fruit-fly larvae.

In the past, with reference to certain organisms, agricultural import decisions were based on a stated policy of "zero risk." This idea, underpinned by the scientific tools and concepts of the time, resulted in very restrictive quarantine measures. This approach was taken because there were few alternatives: technology was not as advanced as it is today, and the mechanisms of pest disease transmission were not as well understood as they are now. Thus, quarantine officials took a conservative approach in forbidding the entry of many products into the United States.

With the increasing sophistication of modern risk analysis, regulators can now assemble and analyze pest information in a more thorough, consistent, and transparent manner. Still, countries must protect against foreign pests and diseases. While some agricultural commodities need only be inspected prior to shipment and upon arrival, PRAs often recommend some type of treatment to protect U.S. agriculture from foreign pests and disease. As mentioned earlier, the United States allows imports of mangoes from Mexico but only after they are hot-water dipped to ensure that all fruit-fly larvae are killed. Similarly, the United States allows imports of clementines from Spain, but first they must be cold treated to ward off any agricultural pests.

Environmental Analyses

Any time APHIS changes its regulations to allow previously prohibited items entry into the United States, an environmental assessment (EA) is required. An EA is a concise public document that provides sufficient evidence and analysis for determining whether to prepare an environmental impact statement (EIS) or a finding of no significant impact (FONSI). EAs are done whether PPQ is planning to build a new facility or allow the importation of a new plant that could transport dangerous foreign pests. If a proposed action is not likely to cause any significant impact, then a FONSI may be prepared. If the action could have a potentially significant impact, then PPQ must prepare an EIS before the proposed regulation can be finalized.

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An EIS is a detailed statement on the environmental impact of the proposed action, any adverse environmental effects that cannot be avoided should the proposal be implemented, alternatives to the proposed action, the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitments of resources that would be involved in the proposed action, should it be implemented.

Once completed, an EIS may result in changes to a proposed regulation. The environmental impact of such plant pests as the gypsy moth and fruit flies has been studied in EISs painstakingly put together by PPQ. In the case of fruit flies, an infestation in the United States could cause millions of dollars' worth of damage to citrus. While imported citrus from regions like South America is popular in the United States, many safeguards have been implemented to keep fruit flies out.

Importing Agricultural Commodities

Over the years, Americans have come to count on a diverse array of agricultural products for their dinner table. To satisfy the ever-changing tastes of Americans, the United States imports commodities from around the globe. Local stores now carry everything from Mexican artichokes to Italian zucchini. PPQ strives to ensure that these imported products are pest and disease free. PPQ does this by (1) regulating the importation of agricultural products, (2) inspecting admissible products, and (3) making sure that treatments are administered to targeted products before they are released into the domestic market.

Importers must obtain import permits for many, but not all, commodities before the goods can begin their trip to the United States. Importers must also obtain phytosanitary certificates for certain commodities before they can be brought to the United States. These certificates verify that the quarantine officials of the exporting country have examined the agricultural commodities for pests and found them to be disease free.

PPQ's permit unit provides information to potential importers on permit requirements and processes applications for permits. Importers can now apply for fruit and vegetable permits and animal products permits completely online. Users can also print out the application and mail the completed form to PPQ's permit unit. If an application does not fall within APHIS' authority, the permit unit will try to find out where the applicant can get more information. The permit unit manages a high volume of requests and interprets the constantly changing import regulations for myriad plants and plant products.

To save importers time and streamline the application process, PPQ now allows importers to apply for fruit and vegetable permits online. Importers can access the Import Authorization System at https://Web01.aphis.usda.gov/IAS.nsf/Mainform?OpenForm. Not only does the site allow importers to fill out a permit application online, but importers can also track the status of a pending application or amend a current application. Although importers still must apply for soil and other plant permits through the mail, the agency is developing interactive forms that will enable importers to apply for all permits entirely online.

In some cases, however, no acceptable quarantine measures have been proven to mitigate the pest risk associated with a foreign commodity. These commodities are not allowed into the United States. Other agricultural commodities are restricted because of their status as endangered species.

Convention on International Trade in Endangered Species

Many plants and animals whose populations are threatened in the wild are protected by the Convention on International Trade in Endangered Species (CITES). The purpose of this treaty is to regulate the commercial trade of endangered and threatened plants and animals and monitor trade involving species that may become extinct in the near future. More than 123 countries, including the United States, have endorsed this treaty. CITES representatives work to preserve thousands of plants, mammals, birds, reptiles, amphibians, and fish that have been traded commercially without oversight in the past. Representatives convene at least once every 2 or 3 years to evaluate the state of the world's wildlife. Participating countries enforce the treaty's provisions and impose penalties upon individuals caught smuggling plants and other wildlife protected under the provision.

PPQ enforces the plant provisions of CITES and inspects all plants and plant products presented for importation at any of its 15 designated plant inspection stations located nationwide, or at other inspection ports approved by the U.S. Department of the Interior. If plants protected by CITES arrive at an APHIS plant inspection station without the appropriate documents or the plants do not match the documentation accompanying them, the APHIS inspector seizes the plants immediately. PPQ offers seized plants back to their country of origin at that country's expense or places the plants in one of the many designated "rescue centers" in this country, where they may be displayed for the public to enjoy.

Plant Inspection Stations

Funneling all plants and plant products through designated inspection stations helps mitigate the risk of introducing foreign pests and disease. The stations create a safe environment in which to inspect such commodities before they are released from the port. Highly trained PPQ officers in the fields of entomology, botany, and plant pathology work at these stations and have the qualifications to identify any exotic pests and diseases accurately and dispose of them safely so they cannot pose a threat to American agriculture.

These plant inspection stations are located at Nogales, AZ, New Orleans, LA, San Juan, PR, San Francisco, San Ysidro, and Los Angeles, CA, Miami and Orlando, FL, Los Indios, El Paso, and Houston, TX, Honolulu, HI, John F. Kennedy International Airport, NY, Seattle, WA, and Linden, NJ.

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Exporting Agricultural Commodities

To assure foreign countries of the quality of U.S. agricultural exports, PPQ provides documentation that U.S. plants and plant products meet the plant quarantine import requirements of foreign countries. This assurance takes the form of a phytosanitary certificate, issued by PPQ or its State cooperators. PPQ assists American farmers and exporters by providing phytosanitary inspection and certification for plants and plant products being shipped to foreign countries. As a service, PPQ will provide phytosanitary certificates to exporters when required by a foreign country. These phytosanitary certificates verify that the products have been inspected and are pest and disease free.

With the availability of such extensive export information, U.S. exporters usually run into few complications with trade.

PPQ issues two kinds of phytosanitary certificates: those for domestic plants and plant products and those for foreign plants and plant products offered for reexport.

Under direction from Congress, PPQ charges a user fee for issuing phytosanitary certificates. These fees cover the costs of providing certification services, and exporters must pay at the time the certificate is issued.

EXCERPT Database

Because of the sheer quantity of certificates that PPQ issues—paperwork for more than 300,000 shipments each year—and because countries have vastly different entry requirements for agricultural products, PPQ developed a database to track the phytosanitary requirements for each country. This database, called EXCERPT, allows PPQ officers, State and county officials, and members of the agricultural industry to access export information. If a U.S. exporter wants to send flour to Mexico, for example, accessing the EXCERPT database will reveal that a U.S. phytosanitary certificate and a Mexican import permit are both required before the flour leaves this country. The same exporter can also find out that there is no specific certification needed to ship fruit for consumption to Hong Kong.

The EXCERPT database also lists the status of endangered plant species, commodities that are not eligible to be exported to specific countries, and any changes in other countries' entry requirements. EXCERPT identifies ports that are authorized to certify for export those endangered and threatened plants protected by CITES. For example, PPQ officials at San Francisco, a CITES-approved port, can certify endangered cacti for export.

With the availability of such extensive export information, U.S. exporters usually run into few complications with trade. However, in cases where U.S. goods arrive at a foreign nation and are denied entry, PPQ will try to negotiate with foreign plant health authorities on behalf of the U.S. exporter.

Biotechnology

PPQ also provides certain services that deal with biotechnology. U.S. scientists use agricultural biotechnology together with a variety of laboratory techniques, such as genetic engineering, to improve plants, animals, and micro-organisms. Since 1987, APHIS' role in agricultural biotechnology has been to manage and oversee regulations to ensure the safe and rapid deployment of the products of biotechnology. Under PPQ's effective regulations and practical guidelines, private-sector firms can safely test genetically engineered organisms outside the physical containment of the laboratory. PPQ officials issue permits or acknowledge notification for the importation, interstate movement, or field testing of genetically engineered plants, micro-organisms, and invertebrates that are developed using components from plant-pathogenic material.

Federal biotechnology regulations also provide for an exemption process once it has been established that a genetically engineered product does not present a plant pest risk. Under this process, applicants can petition PPQ for a determination of nonregulated status for specific genetically engineered products. Some examples of deregulated crops include five tomato types modified for delayed ripening; five cotton types, one modified for insect resistance and four for herbicide tolerance; two soybean types modified for herbicide tolerance; and six corn types, three modified for herbicide tolerance and three for insect resistance.

PPQ biotechnology personnel meet with regulatory officials from other nations on a regular basis to foster the harmonization of trade regulations. These discussions help ensure that requirements imposed by other countries are as consistent as possible with U.S. requirements and that our trading partners are kept informed of regulatory developments affecting biotechnology.

As agricultural trade continues to expand, the work of PPQ inspires much-needed trust from foreign countries that they are receiving healthy, pest- and disease-free agricultural shipments. Moreover, efforts on the homefront to protect American agriculture ensure that U.S. consumers can continue to enjoy the tastes of America while still sampling the tastes of the world. PPQ touches the lives of all Americans by safeguarding American agriculture, fighting invasive species, and supporting the free flow of trade in the global marketplace.

For more information about APHIS programs, visit the APHIS homepage at http://www.aphis.usda.gov

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Miscellaneous
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