

Attack of the Invasive Species

The United States is under attack from alien invaders, but they're not from outer space. They're foreign plant pests, diseases, and weeds, and they're feasting on and infesting America's agricultural and natural resources. They all have one other thing in common: They are causing or are likely to cause harm to the economy, the environment, or human health. Some pests, such as the imported fire ant, threaten plant, animal, and human health.

In today's global marketplace, the volume of international trade brings increased potential for these invaders to enter our country. Many of these pests and diseases have seriously harmed urban and rural landscapes and have caused billions of dollars in lost revenue and millions in cleanup costs. Some scientists estimate that the economic impacts from invasive species exceed \$1 billion annually in the United States. This is on top of the damage they cause to hundreds of millions of acres of native ecosystems and associated native plants and animals. That's why keeping these pests and diseases out of the country is the number one priority of the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS).

Just how damaging are invasive species to America's farmland and natural ecosystems? These hungry pests grow and spread rapidly, disrupting the areas they invade by:

- Pushing out native species;
- Reducing biological diversity;
- Killing forest trees;
- Placing other species at increased risk of extinction;
- Altering wildfire intensity and frequency;
- Damaging crops;
- Closing foreign markets to U.S. products from infested areas; and,
- Costing millions of dollars in treatments to industry and government.

If you are a hiker, biker, camper, bird watcher, gardener, hunter, fisherman, boater, rancher, farmer, or logger, these invaders could ruin your favorite outdoor activity—or your livelihood.

How Do They Get Here?

Although some invasive species can slip into the United States naturally via wind, ocean currents, and other means, it's uncommon. Most invasive species get some help from human activities. They are brought into the country and released intentionally, or they are moved and released as an unintentional byproduct of cultivation, commerce, tourism, or travel.

Many species enter the United States each year in cargo, mail, and passenger baggage or as contaminants of commodities. Agricultural produce, nursery stock, cut flowers, and timber can harbor insects, disease-causing microorganisms, slugs, and snails. These pests can also hitchhike on containers, crates, or pallets. Weeds continue to enter the United States as seed contaminants.

Military cargo transport can also bring in harmful species such as the Asian gypsy moth and brown tree snake. Ballast water released from ships as cargo is loaded or unloaded has brought in several destructive aquatic species.

Protecting the United States against Invasive Species

APHIS' job is to protect the United States from the entry of these invaders and, if they do slip through, to respond rapidly and effectively to minimize the damage. APHIS' Plant Protection and Quarantine (PPQ) program is a key part of this effort. PPQ safeguards U.S. agricultural and natural resources from risks associated with the entry, establishment, or spread of agricultural pests and diseases, as well as invasive and harmful weeds. In this battle, PPQ works very closely with its many partners at the Federal, State, county, and local levels and at universities and non-governmental organizations.

To support this complex mission, PPQ:

- Partners with the U.S. Department of Homeland Security (DHS) to prevent the introduction of agricultural pests and diseases at U.S. ports of entry;
- Develops quarantine policies and regulatory requirements for agricultural commodities and plant resources;
- Establishes requirements for and facilitates the safe import and export of agricultural products;
- Monitors and surveys throughout the country for pests and diseases;

- Prevents, detects, manages, and if possible, eradicates foreign pests and diseases in the United States;
- Develops scientifically advanced, environmentally sound methods to respond to plant health threats; and,
- Collects and analyzes pest data, both in the United States and overseas, to identify and evaluate pathways for the introduction and movement of invasive plant pests and weeds.

Through these activities, PPQ protects America's agriculture and the environment against pest and disease threats. This helps to ensure a diverse natural ecosystem and an abundant and healthy food supply for all Americans.

What You Can Do to Fight these Invaders

Despite their best efforts, APHIS and its partners cannot defeat invasive species by themselves. They need you in the fight because you make all the difference in this battle. For example, by deciding not to move firewood on your next camping trip, you might just save a forest that could have been ravaged by any number of pests—Asian longhorned beetle, emerald ash borer, gypsy moth, or Sirex woodwasp—riding on or in your logs to uninfested areas. Through your actions, you can become an important protector of America's agricultural bounty and natural treasures.

The simplest and most important thing anybody can do to help fight invasive species is to prevent their introduction and establishment. Invasive organisms can easily be transported on living plants or fresh products such as fruit. Many pests can be found in recently killed plant material including firewood, lumber, and wood packaging material. Avoiding the long-range movement of these materials is a simple way to slow the spread of pests. Buying only certified, pest-free nursery stock is also a good idea.

Based on your outdoor hobbies or your occupation, there are many specific actions you can take. See the following lists* for details.

International travelers:

- Declare all food, live animals, and plant or animal products to a U.S. Department of Homeland Security Custom and Border Protection officer or agriculture specialist at the first port of entry.
- Research the admissibility of plant and animal products before your trip. You can call APHIS at (301) 851-2046 for question regarding plants and (301) 734-3277 for those regarding animals.
- Please keep in mind that certain foods are restricted in order to protect community health, preserve the environment, and prevent the

introduction of devastating pests and diseases to domestic plants and animals.

- If you suspect agricultural smuggling, please call APHIS' Smuggling Interdiction and Trade Compliance Unit at (800) 877-3835.

Hikers, bikers, campers, and outdoor enthusiasts:

- To avoid spreading seed of invasive plants, learn to recognize infestations and avoid passing through them.
- Clean equipment, boots, animals, and gear between trips, or preferably before leaving an infested area. Make sure to remove all seeds and other plant parts.
- Report any invasive pest sightings to the local land manager or local APHIS office (click on the "Report a pest or disease" link at www.aphis.usda.gov).
- Always use weed-free hay and feed for your animals.
- Don't move firewood. Buy or use firewood that is close to your campsite.

Hunters:

- Use only native plants for food plots. Native plants provide much better food and cover for wildlife.
- Clean your boots, hunting gear, truck bed, and tires after a hunting trip to make sure you are not spreading seeds, insects, or spores to a new location.
- Don't move firewood. Buy or use firewood that is close to your campsite.
- Learn to identify the invasive species in your area. Report any sightings to your county extension agent or local APHIS office (click on the "Report a pest or disease" link at www.aphis.usda.gov).

Gardeners:

- Always declare any plant material brought in from travel abroad.
- Go native! There is a wide variety of beautiful, easy-to-care-for native plants available. Look for an alternative plant list for your State or region.
- Avoid using invasive plant species at all costs.
- Remove invasive plants from your garden.
- Until you are able to rid your garden of invasive plants, be responsible and remember to remove and destroy seed heads before they can spread. Also, don't share invasives with other gardeners.
- Talk to other gardeners about invasives and how you plan to help in the fight against them.
- If you are worried that your garden will lose its luster after removing invasives, talk to your local native plant society or exotic pest plant council. These organizations will be able to suggest suitable native replacements.

*Many of these lists are compiled from materials prepared by the University of Georgia's Center for Invasive Species and Ecosystem Health.

- Report any suspected invasive species to your county extension agent or local APHIS office (click on the “Report a pest or disease” link at www.aphis.usda.gov).
- If you suspect agricultural smuggling, please call APHIS’ Smuggling Interdiction and Trade Compliance unit at (800) 877-3835.

Bird watchers:

- To avoid spreading seed of invasive plants, learn to recognize infestations and avoid passing through them.
- Clean equipment, boots, and gear between trips or, preferably, before leaving an infested area. Make sure to remove all seeds and other plant parts.
- Report any invasive sightings to the local land manager or local APHIS office (click on the “Report a pest or disease” link at www.aphis.usda.gov).
- Change the water in bird baths often to prevent mosquitoes from breeding.

Ranchers and farmers:

- Learn to identify the invasive species in your area. Report any sightings to your county extension agent or local APHIS office (click on the “Report a pest or disease” link at www.aphis.usda.gov). The sooner invasive species are detected, the easier and cheaper it is to control them.
- Clean your boots, gear, truck bed, tires, and harvesting equipment after working a site to make sure you are not spreading seeds, insects, or spores to a new location.
- Be sure to control invasive plants along fencerows, ditches, and other areas adjacent to fields.
- Always use weed-free hay and feed for your animals.
- Remove or eliminate from your property any junk piles or other places bees can nest.

Loggers and foresters:

- Learn to identify the invasive species in your area. Report any sightings to your county extension agent or local APHIS office (click on the “Report a pest or disease” link at www.aphis.usda.gov). The sooner invasive species are detected, the easier and cheaper it is to control them.
- Control invasive species before the start of harvesting activities (this includes raking for pine straw). Invasive plants spread quickly after a disturbance. Reducing populations before disturbing them is the best defense.

- Clean your boots, gear, truck bed, tires, and harvesting equipment after working a site to make sure you are not spreading seeds, insects, or spores to a new location.

Commercial producers:

- Never bring nursery stock, budwood, or bees into the country unless you have a permit from APHIS and follow all permit requirements. Doing so could introduce devastating pests and diseases.
- If you suspect agricultural smuggling, please call APHIS’ Smuggling Interdiction and Trade Compliance Unit at (800) 877-3835.

Hungry to Learn More?

All of these Web sites are great resources:

<http://www.hungrypests.com>
<http://www.beetlebusters.info>
<http://www.stopthebeetle.info>
<http://www.saveourcitrus.org>
<http://www.dontmovefirewood.org>
<http://www.invasive.org>
<http://www.invasivespecies.gov>
http://www.aphis.usda.gov/plant_health
<http://www.continentalforestdialogue.org>

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