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New World Screwworm

Last Modified:

NWS Outbreak in Central America and Mexico

APHIS is partnering with other USDA agencies, the U.S. Department of State, the Food and Agriculture Organization of the United Nations, and affected countries to respond to an outbreak of NWS in Central America and Mexico.

Learn More About the Outbreak in Central America and Mexico



New World screwworm (NWS, *Cochliomyia hominivorax*) is a devastating pest. When NWS fly larvae (maggots) burrow into the flesh of a living animal, they cause serious, often deadly damage to the animal. NWS can infest livestock, pets, wildlife, occasionally birds, and in rare cases, people.

NWS is endemic in Cuba, Haiti, the Dominican Republic, and countries in South America. For decades, the United States and Panama have collaborated through the <u>Commission for the Eradication and Prevention of Screwworm (COPEG)</u> to prevent the pest's northward movement. We use a biological control technique (sterilized insects) to eradicate NWS fly populations. This approach eradicated NWS from the United States in 1966 and eliminated a small outbreak from the Florida Keys in 2017.

Keeping NWS out of the United States is crucial to protect our livestock industry, economy, and food supply chain.

Economic Impact of New World Screwworm

This report summarizes historical economic impact estimates of NWS in the United



What To Look For

The name screwworm refers to the maggots' feeding behavior as they burrow (screw) into the wound, feeding as they go like a screw being driven into wood. Maggots cause extensive damage by tearing at the hosts' tissue with sharp mouth hooks. The wound can become larger and deepen as more maggots hatch and feed on living tissue. As a result, NWS can cause serious, often deadly damage to the animal.

Adult screwworm flies are about the size of a common housefly (or slightly larger). They have orange eyes, a metallic blue or green body, and three dark stripes along their backs.

Report mammals and birds with the following signs:

- Irritated behavior
- Head shaking
- The smell of decay
- Presence of fly larvae (maggots) in wounds

Learn More

Browse NWS Photo Gallery

View NWS Life Cycle

Download NWS Informational Products

How To Prevent This Disease

Protecting the United States from New World Screwworm (NWS)

The best way to keep screwworms out of the United States is to prevent their introduction. NWS can infest warm-blooded animals, including livestock, pets, wildlife, people, and even birds.

Some steps you can take to prevent infestation:

- Watch for signs of NWS in pets and livestock.
- Make sure pets traveling internationally are inspected for screwworm.
- Handle livestock carefully and inspect pens and equipment for sharp objects that can cause wounds.
- Treat the umbilical cords of newborn animals and all wounds immediately with an approved insecticide.
- Protect pets and livestock from other wound-causing parasites such as ticks.

In the event of a NWS detection in the United States, APHIS will recommend additional measures to prevent spread, including:

- Inspect your vehicle for screwworm flies when leaving a NWS-infested area.
- Postpone or avoid procedures that create wounds such as dehorning, branding, shearing, ear notching, tail docking, and castration if you are in an NWSinfested area.

If you think you have found a screwworm, report it immediately to your <u>State animal</u> <u>health official</u> and <u>APHIS office</u>. This will allow APHIS and partner agencies to respond quickly and remove the screwworms before a population becomes established.

Traveling with a dog? View U.S. entry requirements

How It Is Treated

Eradicating NWS is only possible through <u>sterile insect technique</u> (237.54 KB). With this method, sterile male flies are released into an area where a known population has become established. The sterile male flies mate with wild female NWS flies, which then lay unfertilized eggs. Because female NWS flies mate just once in their lifespan, the NWS population progressively reduces and ultimately dies out.

Animals infested with NWS should be treated according to their veterinarian's recommendations.

Currently, there are no animal drugs approved by FDA for the treatment or prevention of <u>New World Screwworm (NWS)</u> myiasis in animals. FDA provides <u>information to support veterinarians</u> with identifying FDA-approved animal drugs labeled for indications other than NWS myiasis that scientific literature indicates may be effective to prevent or treat NWS myiasis.

There are pesticides to potentially use against NWS. View list.

People who suspect they are infested with NWS should seek immediate medical treatment following the <u>Centers for Disease Control and Prevention (CDC) guidelines</u>. For information on how screwworms affect people or to report human disease, visit CDC at <u>About New World Screwworm Myiasis</u> and <u>Clinical Overview of New World Screwworm Myiasis</u>.

NWS Life Cycle



- 1. The adult screwworm fly is attracted to the smell of an open wound and lays her eggs on the edges of it.
- 2. Within a few hours, the eggs hatch into larvae, which burrow into the wound to feed. This worsens the wound and attracts more flies, which lay more eggs.
- 3. The larvae feed for about 1 week and then fall off and burrow into the ground to pupate.

4. After at least 7 days, an adult fly emerges.

NWS Informational Products

Product	Туре	Other Versions
<u>New World Screwworm: What You Need To</u> Know (480.91 KB)	Brochure	Fillable PDF (high-res) (4.03 MB) Fillable PDF (press- ready) (4.1 MB)
<u>Gusano barrenador del Nuevo Mundo: Lo que</u> <u>necesita saber</u> (423.97 KB)	Brochure	Fillable PDF (high-res) (4.07 MB) Fillable PDF (press- ready) (4.66 MB)
Pest Alert: New World Screwworm (212.06 KB)	Factsheet	<u>Spanish</u> (221.68 KB)
Screwworm: An International Threat to Human and Animal Health (958.86 KB)	Poster	Not applicable
New World Screwworm (874.64 KB)	Pest ID card	Not applicable
New World Screwworm: A Threat to Wildlife (Information for Hunters) (559.97 KB)	Factsheet	<u>Spanish</u> (1010.51 KB)

Report Signs of Animal Disease

Producers or owners who suspect an animal disease should contact their veterinarian to evaluate the animal or herd. <u>Find an accredited veterinarian</u>.

Animal health professionals (veterinarians; diagnostic laboratories; public health, zoo, or wildlife personnel; and others) report diagnosed or suspected cases of <u>nationally listed reportable animal diseases</u> to <u>APHIS Area Veterinarians in Charge</u> and to the <u>State animal health official</u> as applicable under State reporting regulations.

Controlling New World Screwworm

Guidance for Veterinarians and Animal Health Officials

Standard Operating Procedure for Possible Detections of NWS in Animals National Veterinary Accreditation Program NWS Training Module NWS: Be Aware and Prepare

(PDF, 626.46 KB)

Factsheet for Veterinarians

Foreign Animal Disease Investigation Guide: New World Screwworm New World Screwworm: Information for Veterinarians (FDA)

Information to help veterinarians identify FDA-approved animal drugs labeled for indications other than NWS myiasis that may be effective in preventing or treating NWS myiasis.

Webinar for Veterinarians and Animal Health Regulatory Officials

This recorded event covers the NWS' life cycle and damage it causes; how to detect and report suspected cases; and USDA's response plans, should there be a detection in the United States.

Emergency Response Information for Cooperators

Emergency Management: New World Screwworm

Find tools and resources to prepare for and respond to an NWS outbreak.

History of NWS Eradication in the United States

Browse our informational materials on the history of NWS eradication in the United States.

Title

Туре

Description

<u>NWS Historical Economic</u> Impact	Ready Reference Guide	Summarizes historical economic impact estimates of NWS in the United States, costs associated with NWS infestation, and the potential economic impact of NWS in 2024
NWS Maps and Timelines (776.15 KB)	Ready Reference Guide	Overview of NWS eradication programs by start date, duration, and more, with quick-reference maps and visual timelines
New World Screwworm	Story Map	Visual narrative that summarizes basics about NWS, eradication, past outbreaks, and more
NWS Investigations in the United States From 2016-2017	Video	Time-lapse map of U.S. investigations for NWS
NWS Investigations in Florida From 2016-2017	Video	Time-lapse map that gives an overview of the Florida NWS response
2016 Investigation into Introduction of NWS into Florida Keys	Report	Topics covered include background on the 2016 investigation, epidemiology of the outbreak, and known pathways for introduction
APHIS Veterinary Services Response to the 2016-2017 Outbreak of NWS in Florida (2.9 MB)	Report	Overview of the 2016–2017 outbreak of NWS in Florida, focusing on the development of the outbreak and the structure and activities of APHIS' response
<u>Cooperative Screwworm</u> <u>Eradication Program</u> <u>Environmental Assessment,</u> <u>August 2017</u> (572.14 KB) Print	Report	Environmental Assessment for Screwworm activities