

New World Screwworm

A Threat to Livestock, Pets and Wildlife

Screwworms are parasitic fly larvae that feed on living tissue unlike typical maggots that feed on dead tissue. There are two main species: the New World Screwworm (NWS - *Cochliomyia hominivora*) and the Old World Screwworm (OWS - *Cochliomyia bezziana*). OWS is found in the Eastern Hemisphere, and NWS is found in the Western Hemisphere and is the focus of response activities in Colorado.

Adult screwworm flies are slightly larger than a common housefly and have orange eyes, a metallic blue or green body, and three dark stripes along their backs. These pests can infest livestock, pets, wildlife, occasionally birds, and in rare cases, people. They are capable of causing extensive and potentially life-threatening tissue damage to affected animals. The flies are attracted to a variety of open wounds, from tick bites to wounds from procedures like spaying and neutering, where they lay their eggs. The fly larvae then burrow into the wounds feeding on living tissue and causing the wounds to expand and deepen. This infestation of the body of a live animal by fly larvae is called myiasis (my-EYE-a-sis).

NWS has a weather-dependent life cycle, slowing in cooler temperatures and dying in freezing conditions. NWS is primarily found in tropical and subtropical areas and is endemic to Cuba, Haiti, the Dominican Republic, and parts of South America, but was eradicated from the United States in 1966 with the use of the Sterile Insect Technique (SIT).

The USDA has confirmed detection of NWS in south-central, Texas and in south-eastern New Mexico. Colorado Department of Agriculture is actively monitoring this evolving situation and we are working with Colorado's livestock partners and USDA, including accredited veterinarians (all vets at Kittredge Animal Clinic), to minimize impacts.

Sterile Insect Technique

Sterile Insect Technique (SIT) involves the strategic release of irradiated sterile male flies, which then mate with the natural fertile female flies, resulting in non-viable eggs. Female flies typically only mate once, allowing for rapid population eradication.

This technique was used to maintain what is termed a "biological barrier" in eastern Panama beginning in 2006 to prevent NWS populations from moving into screwworm-free areas in Central and North America.

Unfortunately, since 2023, there has been an explosion of cases spreading north of the biological barrier through Central America into Mexico. Please contact Kittredge Animal Clinic if you plan to travel with your pet to any of these destinations. Up-to-date information tracking

this outbreak can be found on the USDA's [New World Screwworm Outbreak in Central America and Mexico](#) page.

Recognizing the Signs



Key signs in affected animals can include:

- Irritation and restlessness
- Depression and hiding
- Head shaking
- Decreased appetite
- The smell of decay
- Expanding, malodorous, or infected wounds
- Evidence of myiasis, also known as fly strike
- Presence of fly larvae (maggots) in wounds
 - Larvae feed with their heads buried downwards in the wound
 - Only their posterior ends are exposed to the surface
 - Spiracles on the posterior end are used to breathe

Photos of infested animals are available on [USDA's webpage](#).

(<https://www.aphis.usda.gov/livestock-poultry-disease/cattle/ticks/screwworm/new-world-screwworm-photo-gallery>)

Treatment

If you are traveling to an area that is currently impacted by NWS it is recommended to plan ahead and have your animal up to date on flea and tick prevention, specifically the isoxazoline medication class. Isoxazolines are a highly effective class of anti-parasitic drugs that are 100% effective against NWS larvae in Dogs.

When this oral chewable is administered the drug enters the dogs bloodstream. The active ingredients then act as a systemic larvacide (larva killing mechanism) killing the maggots

infesting the wound, typically within 24 hours of a single dose. Your pet may already be on an isoxazoline for flea and tick prevention! Medication can be picked up in clinic or through our [online pharmacy](#).

Isoxazolines carried at Kittredge Animal Clinic:

- Bravecto (once every 3month chewable)
- Simparica (once every 30 days chewable)