

# Practitioner Guidance for New World Screwworm in Horses

Developed by the AAEP New World Screwworm Task Force



New World screwworm (NWS *Cochliomyia hominivorax*) myiasis is a serious disease that affects livestock, pets, wildlife, occasionally birds, and in rare cases, people.

The disease is most often detected in cattle, swine, horses, small ruminants, and dogs. Myiasis occurs when NWS fly larvae (maggots) **burrow into the flesh of a living animal**, causing very painful wounds. NWS can cause serious, often fatal damage to animals. NWS flies are attracted to wounds as tiny as a tick bite.

**Treat every suspect case as a medical urgency.**

## WHAT TO LOOK FOR:

- Wounds that become deeper and larger as the maggots grow and feed on living tissue.
- Maggots in wounds or other body openings, such as the nose, ears, and genitalia or the navel of newborn animals.
- Wounds that have bloody discharge and foul odor.
- Animals that are showing signs of pain including depression, irritability, not eating, and isolating themselves from other animals or people.
- **Common sites:** lacerations, recent surgical or castration sites, tick/insect bite sites, hoof-related wounds, foal umbilicus, and mucocutaneous junctions such as nostrils, lips, ears, periocular tissues, prepuce, vulva, and anus.
- **Remember: NWS larvae feed on living tissue;** collect from the deepest part of the lesion because surface larvae may represent secondary myiasis.



Mature New World Screwworm larvae/PC: USDA

## REPORT SIGNS OF NWS IMMEDIATELY:

**Immediately report** any suspicious wounds, maggots, or infestations to your State Animal Health Official and U.S. Department of Agriculture (USDA) Area Veterinarian in Charge.

- **Contact animal health officials before submission.** In many cases, Federal or State responders will direct or perform collection.
- Isolate the horse and protect the wound from additional fly exposure.
- Wear gloves and use forceps to gently remove larvae from **several sites and depths** within the lesion, prioritizing the deepest portion.
- Collect 5–10 larvae of different sizes if available; photograph the wound, larvae, and any egg masses before and during collection.
- Place larvae in a leak-proof screw-cap vial with 70% ethanol or isopropyl alcohol; seal the lid and bag the sample and store at room temperature.
- Record animal identification, species, age, location, date, lesion site, travel history, and recent procedures or wounds.
- Do not delay reporting while waiting to complete sampling.



Adult New World Screwworm Fly/PC: USDA



## TREATMENT

- Pre-treat the wound with larvicidal spray to prevent any falling larva from maturing into adult flies.
- Mechanically remove ALL visible larvae and egg masses and collect in a container which will be filled with 70% isopropyl alcohol. Dead larvae can then be properly disposed.
- Repeat wound exploration because larvae may be deep in tissue.
- Clean and debride the wound as clinically indicated, then provide analgesia, anti-inflammatory therapy, and systemic antimicrobials when warranted by tissue damage or secondary infection.
- Use an appropriate topical or systemic screwworm treatment in accordance with current label directions and Food and Drug Administration authorized products. <https://www.fda.gov/animal-veterinary/safety-health/new-world-screwworm-information-veterinarians>
- **Do not substitute treatment for reporting.** Early recognition, immediate notification, and coordinated response are essential to prevent establishment.



*New World Screwworm infestation in a horse's leg/PC: USDA*



*New World Screwworm infestation in dogs neck/PC: USDA*



*New World Screwworm Larva showing mouth hooks/PC: USDA*



*Dog's eye infested with New World Screwworm larva/PC: USDA*

## LEARN MORE

Scan the QR code to learn more about NWS or contact your State Animal Health Official or USDA Area Veterinarian in Charge.

- State Animal Health Official [www.usaha.org/saho/](http://www.usaha.org/saho/)
- USDA Area Veterinarian in Charge [www.aphis.usda.gov/contact/animal-health](http://www.aphis.usda.gov/contact/animal-health)