

July 15, 2025

Steve Troxler Commissioner

North Carolina Department of Agriculture and Consumer Services Christina L. Waggett Assistant Commissioner for Consumer Protection

Michael P. Martin, DVM State Veterinarian

New World Screwworm

You may have heard of New World Screwworm (NWS) and the current outbreak in Mexico. NWS adult flies lay eggs on the edges of wounds or mucosal surfaces. Once the eggs hatch the larvae (maggots) feed on <u>living tissue</u>. This is what is most concerning about the close proximity of the outbreak in Mexico and how the NWS maggot is very different from our endemic fly maggots. NWS myiasis is a serious disease of not only livestock, but all warm-blooded animals.

New World Screwworm is a reportable disease in the United States. If you suspect NWS call either:

- 1. NCDA&CS Livestock Health Programs: (919) 707-3250
- 2. USDA APHIS Veterinary Services: (919) 855-7700

Where is this pest located?

The most recent reported detection is in Ixhuatlan de Madero, Veracruz (approximately 370 miles south of the US/Mexico border). Historically a sterile fly barrier has been maintained at the Darien Gap in Panama, containing NWS flies to South America. In 2022 the flies were able to <u>breech the barrier</u> and continued northward.

What does NWS look like?

Maggots in a wound or other body opening. Remember these NWS larvae feed on living tissue.

- They may be found in areas where you would not usually expect to see maggots: genitalia, navels of newborns, recent surgical sites (castration, ear tagging, tail docking, etc.)
- Wounds that have a foul odor and bloody discharge
- Wounds that become deeper and larger. There also may be a very small surface wound with a large and deep wound under the skin. This occurs when maggots enter a small skin opening and feed on living tissue, causing an enlarging wound. (NWS can enter into a wound as small as a tick bite).

Resources to learn more:

- Webinar available on YouTube hosted by NCDA&CS Veterinary Division, NC State Extension, and NC Cattlemen's. The webinar takes less than 30 minutes and provides a good overview.
- USDA National Veterinary Accreditation Program Training Module 41: New World Screwworm
- USDA web page on New World Screwworm
- USDA information for veterinarians
- > A one-page guidance document for veterinarians follows this page and is attached to this email

Call immediately if you suspect a case of New World Screwworm!



July 7, 2025

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Veterinarian's Guide to New World Screwworm Sampling

NEW WORLD SCEWWORM IS A REPORTABLE DISEASE

If you suspect New World Screwworm (NWS) call either NCDA&CS or USDA immediately:

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Collect a detailed history:

Has there been a recent change in ownership or travel for any animals in the household or on the farm? Have any humans in the same household or on the farm traveled recently outside of the US?

Travel history for animals and humans in the past 2 weeks are most critical.

What other animals are at the same location (home or farm)?

Are there any other animals with wounds?

Do any household members work in an animal-related industry?

If possible, take pictures of the wound and maggots for animal health officials.

Sample collection:

- USDA-Accredited Veterinarians and State and Federal Animal Health Officials can collect samples.
- Wear appropriate PPE for sample collection. Avoid contaminating yourself with fly eggs or larvae.
- Collect maggots from the deepest part of the wound in a variety of sizes/stages of development.
- 10 maggots is the preferred sample size. Forceps are recommended for collection.
- Wounds can be co-infected with other species of maggots. Endemic species will likely be the primary
 species present in the superficial areas. NWS maggots are usually found in deeper parts of the wound.
- Place the maggots in an air-tight container (a test tube, vial, or specimen container works well).
- Preserve the maggots in 70% alcohol: either ethyl or isopropyl alcohol. Use sufficient volume to submerge the samples.

Treatment for New World Screwworm:

- Clean the wound and attempt to remove <u>all</u> visible maggots and eggs.
- Place <u>all</u> larvae and eggs flushed from the wound into 70% alcohol to <u>kill the larvae</u>. Any maggots not selected for submission can be discarded once they are in an airtight container with 70% alcohol.
 - Apply a topical or systemic antiparasitic or insecticide.
 - Dog SOP from USDA: <u>APHIS SOP for Possible Detections of NWS in Dogs</u>
 - Animal SOP from USDA: <u>APHIS SOP for Possible Detection of NWS in Animals</u>
- Reinspect the wound area for maggots every 24 hours
- EPA registered products effective against NWS: <u>Pesticides</u>

You will receive specific sample submission instructions after speaking to either NCDA&CS or USDA.

The samples can be stored and shipped at room temperature (no cold pack is needed for shipping).