

NEW WORLD SCREWORM FIELD GUIDE FOR BEEF CATTLE PRODUCERS

*Detection, reporting, collection, submission,
treatment, and prevention*

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Early detection, reporting, and treatment of New World Screwworm (NWS) infestations will help to limit spread and minimize long-term consequences for beef cattle operations. If you suspect a NWS infestation in beef cattle, it is imperative that you immediately report it, collect and submit larvae samples for confirmation, treat the larval infestation, and take steps to prevent additional infestations in the herd. Your herd veterinarian is best positioned to make informed recommendations and should be consulted to guide treatment and prevention of NWS infestations on your operation. In addition to working with your veterinarian, the information contained within this document can be used to guide you through these processes.



TEXAS A&M UNIVERSITY
Animal Science



TEXAS
BEEF CATTLE
EFFICIENCY INITIATIVE



DETECTION

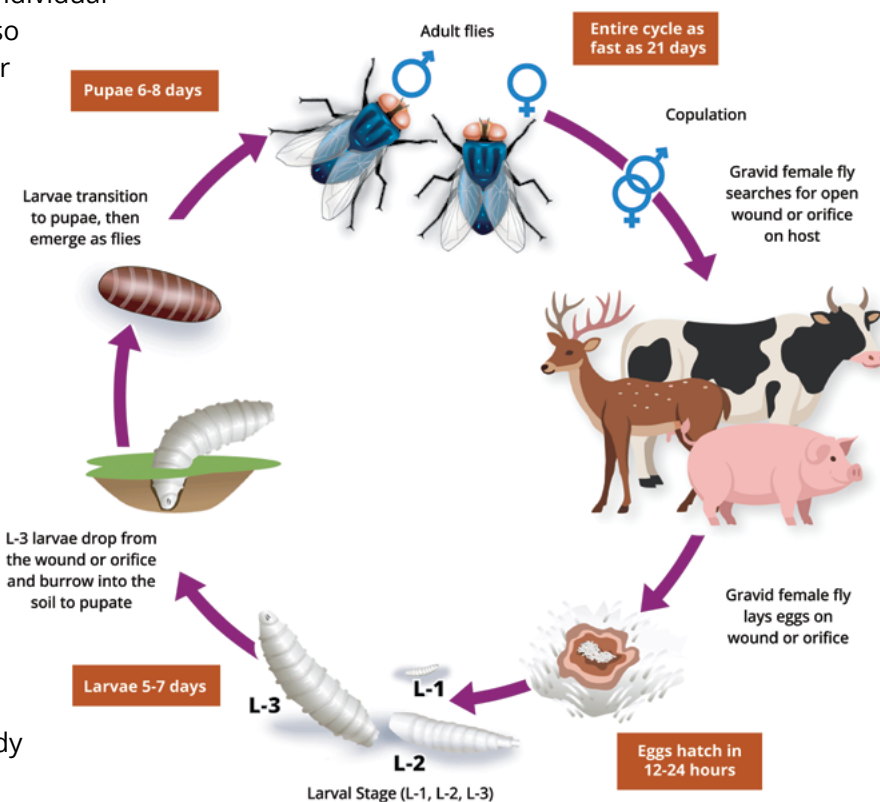
Early detection of a NWS infestation in cattle begins with regular and thorough evaluation of individual animals. Infestation can develop rapidly, so animals should be closely evaluated either daily or multiple times per week on an individual basis during periods of high risk, particularly soon after birth (calves) or calving (cows). This will help to minimize the number of animals impacted.

Symptoms of larval infestation include any of the following, and are often associated with a wound or natural opening on the animal's body:

- Swelling or abnormally red discoloration
- Bloody, puss, or straw-colored liquid discharge
- Visible presence of maggots
- Excessive licking of an area on the body or shaking or rubbing of the head
- Visible irritation or discomfort, often observed as reluctance to lay down, kicking at the belly, or tail-twitching
- Foul-smelling odor

Specific locations on the animal that should be closely evaluated that are most commonly infested by NWS larvae include the following:

- **Locations with natural openings or damaged mucous membranes**
 1. Umbilical cord and navel or sheath
 2. Rectum and vulva
 3. Eyes, nose, mouth, and ears
 4. Other locations where animals commonly get cut or excessively rub and create an open sore, such as the legs and interdigital space between the claws of the hoof



NWS life cycle diagram from USDA APHIS

• Locations with potential for man-made openings

1. Scrotum or cod, following any method of castration
2. Base of horn or horn buds, following any method of dehorning
3. Brand location, following any method of branding
4. Ear, following administration of an ear tag, tattoo, ear notch, or implant, or collection of a tissue sample
5. Any other site of a surgical procedure, incision, or wound

REPORTING, SAMPLE COLLECTION AND SUBMISSION

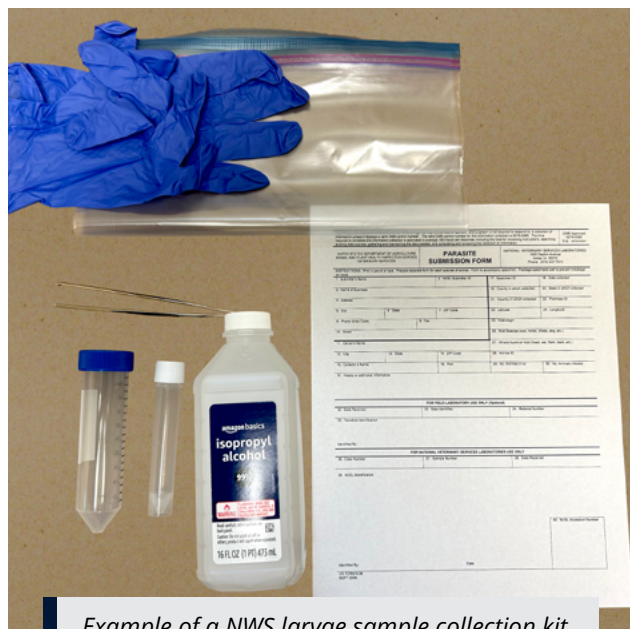
If you suspect that one or more of your animals has been infested with NWS larvae, it should immediately be reported. **Do not transport affected animals or their herd mates.** Immediately report suspected infestations to 1) the **Texas Animal Health Commission (TAHC) by calling (800) 550-8242**, and 2) your herd veterinarian. Among other things, reporting and confirmation of an infestation will help your operation receive a targeted release of sterile flies, which will help to suppress the local NWS population and limit spread. Sterile flies are the most effective strategy for reducing and ultimately eliminating NWS populations in an area. Note that the infested wound will be painful to the animal, and the animal may experience considerable discomfort during larvae sample collection and wound treatment.

To collect larvae ("maggots") for submission and official identification:

1. Restrain the animal over concrete, a hard surface, or tarp to prevent larvae from contacting the soil. Larvae burrow into the soil to complete the next stage of their life cycle.
2. Wear nitrile or latex gloves (optional but recommended) and use forceps to remove multiple larvae of different sizes from different sites within the wound. Use this opportunity to remove and collect all possible larvae from the wound as a first treatment step.
3. Completely submerge the larvae in $\geq 70\%$ isopropyl ("rubbing") alcohol or ethyl alcohol ("ethanol") in a screw-cap vial, bottle, or other leak-proof container that can be sealed to preserve the larvae for identification. A small plastic water bottle or other sealable container will suffice. Do not place the larvae in formaldehyde, as it will invalidate the sample. Larvae may be frozen prior to placing in alcohol for shipment if alcohol is unavailable at collection.
4. Use tape to reinforce the seal of the container to prevent it from opening during shipping, and enclose the sealed container in a zippered plastic bag.



Infestation of an open wound by NWS larvae



Example of a NWS larvae sample collection kit

To submit larvae samples for identification, first contact **TAHC** by calling **(800) 550-8242** to receive current shipping procedures, including a foreign animal disease (FAD) investigation number, as well as information on where to send the samples, how to label the package, what to include in the package, and who to notify of an incoming shipment. Confirm that all necessary contents are included in the package prior to shipping.

TREATMENT OF INFESTED ANIMALS

Most NWS infestations can be treated and result in full recovery of the animal. In most situations, there is no reason to euthanize the animal unless recommended by the veterinarian. Treatment plans should include methods for topically treating the wound and systemically treating the animal. Read and follow product labels. Many treatment options have slaughter withdrawal requirements. Keeping the beef supply safe is a priority. Individually identify treated animals and keep treatment records. Ensure treated animals have cleared their slaughter withdrawal and received TAHC transportation approval before leaving the operation. Follow the directions on the product label and utilize Beef Quality Assurance best management practices to promote treatment efficacy and food safety. No treatment option is perfect. Monitor treated animals to ensure that the infestation has been eliminated. The most up-to-date list of products with emergency use authorizations or new conditional approvals for NWS can be found at <https://www.fda.gov/animal-veterinary/safety-health/animal-drugs-new-world-screwworm>.

The following are primary components of a treatment plan to consider that are supported by a combination of research and practical experiences in the field, and include product options that are current as of July 9, 2026:

1. Wear gloves and use forceps to physically remove and destroy as many larvae as possible. Kill the larvae by placing them in a container and covering them with an insecticide or $\geq 70\%$ alcohol. Do not discard or stomp larvae on soil. Larvae naturally burrow into the soil as part of their normal life cycle.
2. Treat the wound topically by thoroughly applying an appropriate insecticide directly to the wound. This may result in visual appearance or “backing out” of additional larvae that should be physically removed from the wound, as previously described. Follow the directions on the insecticide product label. Products available through an emergency use authorization cannot be used in any way other than what is described on the label. Some products should be reapplied at certain intervals (ex. every few days) until the wound has healed. Common labelled product options and other products that have received emergency use authorization include the following:

- a. *Catron IV (by Elanco Animal Health), Prozap Screw Worm Ear Tick Aerosol (by Neogen), and Screw Worm Aerosol Multi-Purpose Insecticide Spray (by Durvet), which are available over the counter without a prescription through their approved use as described on the label*
 - b. *F10 Antiseptic Wound Spray with Insecticide and F10 Antiseptic Barrier Ointment with Insecticide (by Health and Hygiene), which are topical products that are available over the counter through emergency use authorization*
 - c. *Negasunt (by Elanco Animal Health) topical powder, which is available for use only by employees or people working under the authority and direction of federal, state, local, and federally recognized tribal agencies through an emergency use authorization, can only be applied by a veterinarian, and carries neurotoxicity risks to those exposed to it*
3. Treat the animal systemically with a drug with documented efficacy against NWS. Dosage of these drugs is calculated in volume (mL) per weight (often lbs or kg), so having an accurate weight of the animal and dosing it appropriately is crucial for product efficacy. Conditionally approved treatment product options currently include:
 - a. *Dectomax CA-1 injectable (by Zoetis), which is available over the counter for subcutaneous injection*
 - b. *Exzolt Cattle-CA1 pour-on (by Merck Animal Health), which requires a veterinary prescription, and is administered through topical pour-on, but enters the animal's system through licking and grooming behavior*
 4. Closely monitor the animal(s) following treatment. **No pharmaceutical product should be expected to be 100% effective, for a variety of reasons.** If possible, keep the affected animal(s) separate from their herd mates and monitor them closely until confirming that the infestation is no longer active and the wound has healed. While treatment may clear the active larvae infestation within a day or two, it may take weeks for the wound to heal. Consult with the herd veterinarian to determine the best method of treating any secondary bacterial infections that may occur within the wound. Closely monitor all animals in the herd to ensure no additional infestations exist or develop.

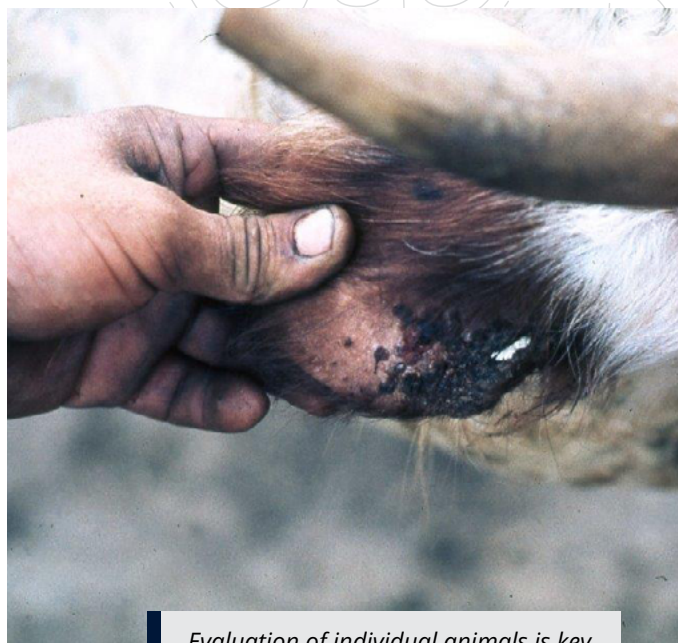
PREVENTION OF INFESTATION IN OTHER CATTLE

The following components of a prevention plan are supported by a combination of research and practical experiences in the field and include current product options as of July 9, 2026. These can be used to help prevent the development of a NWS infestation in animals that do not have an active infestation but risk of exposure is high. Prevention strategies should be discussed with the herd veterinarian.

1. Deter the NWS fly from interacting with cattle by expanding external parasite control to include topical treatment(s) with a synergized permethrin- or organophosphate-containing compound, through use of a spray, pour on, impregnated ear tag, oiler, rub, or dust bag. Pour-ons and sprays must be regularly reapplied to maintain fly control over an extended period. Oilers, rubs, and dust bags can re-apply insecticide to the animal on a regular basis if the animals voluntarily use them. Consider a multifaceted approach to fly control.
2. Repair or modify working facilities, equipment, and trailers as needed to prevent wounds.
3. Chemically disinfect ear taggers, tattoo pliers, castration knives, and implant equipment with alcohol or diluted chlorhexidine solution between animals to help prevent infection.



Inspect and repair facilities and equipment to prevent wounds



Evaluation of individual animals is key

4. Treat newborn calves with Dectomax CA-1 injectable (preferred if available) or Ivomec injectable (by Boehringer Ingelheim; recommended when Dectomax CA-1 is not available) to help prevent navel infestation. Continue to monitor calves after treatment.
5. Treat the umbilical cord and navel of newborn calves with one (but not a combination) of the following: an insecticide spray or ointment to deter flies, iodine, or a spray or ointment product labelled to promote healing of the navel.
6. Treat cows that required calving assistance, prolapsed, or retained their placenta with Dectomax CA-1 (preferred if available), Exzolt Cattle-CA1 (preferred if available), or Ivomec (recommended alternative if others are unavailable) following calving to help prevent vaginal infestation.
7. Treat wounds and incision sites (castration, dehorning, other surgery) with an insecticide spray or ointment labelled for administration to wounds on beef cattle (see previous list).
8. Treat cattle at the time of castration, dehorning, or other surgical procedures with Dectomax CA-1 (preferred), Exzolt Cattle-CA1 (preferred; conditionally approved for use in cattle 2 months of age and older) or Ivomec (recommended alternative if others are unavailable).

SLAUGHTER WITHDRAWAL INFORMATION



GET THE FACTS
Scan to learn more.
tx.ag/screwworm

- Catron IV, Prozap Screw Worm Ear Tick Aerosol, and Screw Worm Aerosol Multi-Purpose Insecticide Spray require no withdrawal.
- F10 Antiseptic Wound Spray with Insecticide and Barrier Ointment with Insecticide each require a minimum withdrawal of 30 days after administration.
- Negasunt topical powder requires a minimum withdrawal of 28 days after administration.
- Dectomax CA-1 injectable requires a minimum withdrawal of 35 days after administration.
- Exzolt Cattle-CA1 requires a minimum withdrawal of 98 days, or 44 days if cattle are continuously exposed to temperatures at or above 60°F after administration. This timeline should apply to all animals in a group where one or more animals were treated.
- Ivomec injectable requires a minimum withdrawal of 35 days after administration.