Manual for New World Screwworm Myiasis Care

General Recommendations



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Introduction

This manual provides a clear, concise guide for locating, inspecting, and treating myiasis caused by the screwworm in cattle (NWS). Proper wound management prevents infection, promotes healing, and safeguards animal welfare. **This document is intended for use by veterinarians, veterinary technicians, and personnel trained in livestock handling.**

Always follow good animal-handling practices and consult a veterinarian when needed.

This document does not replace national authority recommendations; it only adds activities to prevent the presence and spread of this arthropod.

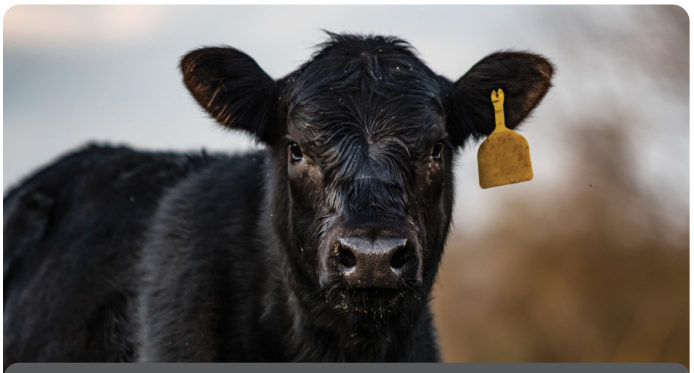


Detailed inspection of each animal

Animals should be taken to pens, processing area or chute – a place that best allows for thorough, individual inspection. **Any signs such as: isolation, lameness, depression, foul odor, evidence of bleeding, infested or very dirty cavities, young animals with umbilical issues, open or closed wounds, or any condition that raises suspicion of an affected animal should be inspected.**



Herd inspection before individual review: observe the herd's posture, movement, and overall behavior



Individual, thorough, and detailed inspection

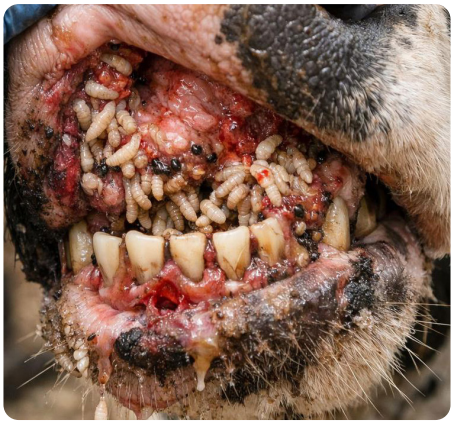
The individual inspection must be methodical – always in the same order and carried out exhaustively. **It should start from head to tail (cranial to caudal) and from top to bottom (dorsal to ventral) extending to the locomotor limbs**.

Special attention should be paid to: horns after dehorning; ears where tags have been applied (whether recent or not); inner ear; mouth (corners and inside); wounds; tick infestations; injuries caused by other dipterans (flies); branding marks; attacks by dogs or other animals; vulva, anus, prepuce, navel; and limb injuries from wire, erosions, hoof lesions, and the interdigital space.

Finding evidence of crusts does not guarantee that there is no active myiasis, the wounds can close and keep active myiasis.



Cavitary myiasis in vulva, without the presence of previously caused wound.



Gingivo-alveolar cavity myiasis, occuring without a pre-existing wound.



Umbilical myiasis, the most common type – affects newborns in the first few days of life.



Skin myiasis due to erosion in hoof.



Interdigital myiasis in hoof.



Myiasis in ear-tagging site, it is recommended to do a comprehensive treatment.



Myiasis in scarred dehorning, it is necessary to uncover the wound to discover the active myiasis.

The characteristics of operations and their size can complicate the task of detailed individual inspection. Although a general review of all animals is necessary, attempting to cover the entire herd could take too long and be impractical. To speed up this task, we can carefully examine the areas where the greatest number of NWS-infested wounds have been reported. Below is a compilation of the sites and wounds most commonly reported with myiasis caused by *Cochliomyia hominivorax*:

Types of injuries most commonly reported with NWS myiasis in Mexico	
Navel	Trauma
Wire wound	Fighting among herd
Arthropod lesions	Ear tag site
Vulva	Dehorning site
Hooves	Skin lesion
Branding	Foreskin
Castration	Otitis
Anal region	Neoplasias
Mastitis	Oral cavity

Modified from the CPA Information Bulletin, Cattle Screwworm Progress, Volume 10, December 2025. www.gob.mx/senasica

Differences between operations and their specific characteristics also affect the frequency and type of lesions caused by *C. hominivorax* larvae; the inspection task can be focused according to the cattle-management segment.

Common lesion sites:

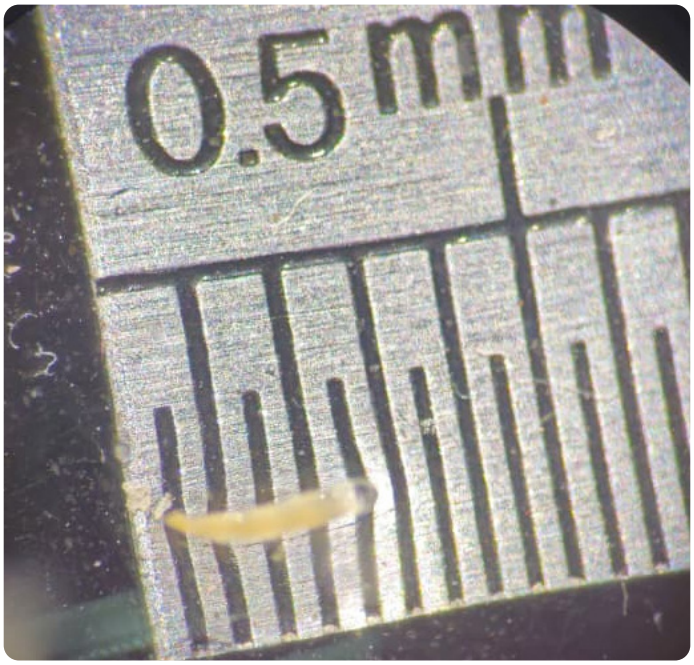
- Navel
- Side traumas
- Wire wounds
- Horns
- Ears
- Hooves
- Foreskin
- Vulva
- Castration
- Anus
- Branding
- Legs

Information published on SENASICA's official social media, consulted on January 20, 2026, available at: https://www.instagram.com/reel/DTN0L7pjU9d/?igsh=ajlwMDJlMGZxb2E1

Initial wound assessment[1, 2, 3, 4]



Presence of eggs on the navel/umbilicus



Approximately 2mm L1 Larvae

Animals in which wounds are found **must be restrained to ensure safe handling** and to prevent the animal from causing a new injury during the procedure.

Before initiating any treatment, it is essential to perform a thorough assessment of the wound. Consider the following aspects:

Location: Determine the precise location of the wound on the animal's body.

Size: Estimate the wound's dimensions (length, width, depth).

Depth: Assess whether the wound is superficial or deep, and whether it involves underlying tissues (muscle, bone).

Wound type: Identify whether it is a laceration, abrasion, puncture, burn, etc.

Presence of fly larvae: Determine whether the wound has fly larvae, eggs, or adult flies attempting to lay eggs. This can be challenging because the youngest larvae are very small and difficult to see within the wounds.

Contamination: Assess the degree of wound contamination (presence of dirt, organic matter, foreign bodies).

Signs of infection: Look for local signs (redness, swelling, heat, pain, pus) or systemic signs (fever, lethargy).

Presence of additional wounds: Determine whether the animal has only one wound, identify any others, and apply the same assessment as above.

Preparation of the treatment area[2, 4, 5]

It is essential to prepare a clean, safe area for treating the animal.

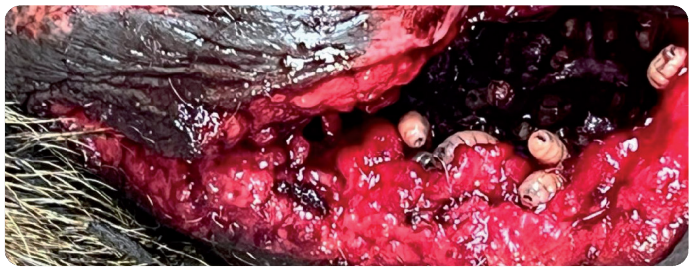
Isolation: Isolate the animal in a clean, well-lit area.

Restraint: Ensure proper restraint, possibly even sedation, to prevent sudden movements that could hinder treatment or cause additional injury.

Hygiene: Wash and disinfect the area around the wound. Do not let the larvae fall to the ground; collect them for proper disposal.

Materials: Prepare all necessary materials (gloves, cleaning solutions, disinfectants, topical larvicidal treatments, Dectomax/ Dectomax-CA1® (doramectin injection), etc.) before starting the procedure.

If possible, use fly traps around the facilities: To prevent reinfestation and capture females before oviposition.



Prepare the wound by cleaning around the wound.



Do not allow the larvae to fall to the ground and always wear portective clothing.

Cleaning and disinfection of the wound[2, 4, 5]

Cleaning and disinfection are crucial steps to prevent infections and promote healing.

- **Remove debris:** Carefully eliminate any dirt, organic matter, or foreign bodies present in the wound. Use clean water and a mild soap if necessary.





- **Remove as many larvae as possible:** Dispose of them properly. Do not throw them on the ground, as the more developed larvae (L3) can burrow and continue their development, perpetuating the cycle. Place removed larvae in a container and submerge them in 70% alcohol for transportation to a diagnostic laboratory.
- **Irrigation:** Irrigate the wound with sterile saline or a mild antiseptic (chlorhexidine). Use a syringe or irrigation system to ensure thorough cleaning.
- **Apply a topical larvicide:** Consult a veterinarian about EPA-approved topical treatments for NWS, and keep the wound clean and dry to help prevent reinfestation.
- **Broad-spectrum antibiotic is recommended:** To be prescribed by a licensed veterinarian.
- **Apply Dectomax/Dectomax-CA1®:** At a dose of 1 mL (10mg doramectin) per 110 pounds body weight by either subcutaneous (SC) or intramuscular (IM) injection. Dectomax-CA1 is conditionally approved by the FDA-CVM for the prevention and treatment of infestation caused by larvae of *Cochliomyia homnivorax* (myiasis), and prevention of reinfestation for 21 days.

Follow up and aftercare[4, 5, 6, 7]

Proper follow up is essential to ensure correct healing and scar formulation.

Daily inspection: Inspect the wound daily to detect signs of infection or complications to prevent new reinfestations by NWS flies or other fly species.

Medication administration: Administer antibiotics or anti-inflammatories as prescribed by the veterinarian to address secondary soft tissue infection.

Additional considerations

1. **Pain control:** It is crucial to consult with a veterinarian to establish supportive care for any animal with suspected myiasis.
2. **Infection prevention:** Consider antibiotics for deep or contaminated wounds.
3. **Vaccination:** It is important to ensure the animal is protected against clostridial diseases.
4. **Veterinary consultation:** Consult a veterinarian if the wound doesn't improve or shows signs of infection.
5. **The treatment of NWS myiasis in all animals** must be under the responsibility of a licensed veterinarian with a current professional credential.
6. **Establish a regular control program against other ectoparasites:** Such as ticks, other wound-producing flies, and hematophagous (blood-feeding) bats.
7. **We recommend the use of Dectomax/Dectomax-CA1®** as an integral part of a parasite control program. Dectomax-CA1 is conditionally approved by the FDA-CVM for the prevention and treatment of infestation caused by larvae of *Cochliomyia hominivorax* (myiasis), and prevention of reinfestation for 21 days. This conditional approval applies to beef cattle, female dairy cattle less than 20 months of age, pregnant beef cows, newborn calves and bulls. Dectomax/Dectomax-CA1 has activity against a large number of ectoparasites and endoparasites.

Conclusions

This protocol provides a detailed guide for the supportive care of wounds in cattle infested areas with fly larvae of *Cochliomyia hominivorax*. The initial evaluation, cleaning, specific treatment, and follow-up are crucial steps to ensure proper healing, scar formation, and the prevention of complications and reinfestations.

NWS is a reportable disease, and producers must report suspect cases immediately to their veterinarian. The Veterinarian must then report it to the Area Veterinarian in Charge (AVIC) and State Animal Health Official (SAHO)

It is important never to apply treatments that are not indicated for the management of wounds and myiasis. Never use highly irritating substances to eliminate larvae in wounds; animal welfare and proper healing should always be prioritized to avoid reinfestations.

Do not use treatments off-label; it is important to follow the manufacturer's recommendations to ensure a satisfactory outcome. **Remember that veterinarian consultation is essential in any suspected case.**

Consider integrating Dectomax/Dectomax-CA1 as part of a comprehensive parasite control program, including the prevention and treatment of myiasis caused by larvae of ***Cochliomyia hominivorax* (New World Screwworm).** Combined with effective herd inspection, this approach helps control a broad spectrum of parasites, reduces reinfestation, and hinders the establishment of New World Screwworm, supporting efforts to counter this re-emerging parasitosis that severely harms the national cattle industry.

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*Dectomax-CA1 Injectable is conditionally approved in the United States by the FDA-CVM (Food and Drug Administration – Center for Veterinary Medicine) for use against New World screwworm myiasis. The indications for use differ from those registered in Mexico.

Dectomax-CA1 is conditionally approved by FDA pending a full demonstration of effectiveness under NADA 141-616.

IMPORTANT SAFETY INFORMATION: Dectomax / Dectomax-CA1 Injectable for use in cattle have a 35-day pre-slaughter withdrawal period. Do not use in female dairy cattle 20 months of age or older. Do not use in calves to be processed for veal. Use of Dectomax or Dectomax-CA1 in dogs may result in fatalities. Consult your veterinarian for assistance in the diagnosis, treatment, and control of parasitism.

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